Mitchell, Brian

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To: Mitchell, Brian; Doug.Arnold@alston.com
Subject: Electrolux Site Summary Report - Jefferson, Iowa

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Hi, Brian.

On behalf of Electrolux, I append the Site Summary Report for the former Electrolux facility in Jefferson, Iowa. Please let me know if you have any difficulties downloading the report (84 MB) and contact me or Doug Arnold with any questions regarding the report.

Cheers,

Jim

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SITE ASSESSMENT SUMMARY REPORT

FORMER ELECTROLUX HOME PRODUCTS, INC. FACILITY, JEFFERSON, IOWA

Submitted To: Electrolux Home Products, Inc.
10200 David Taylor Drive
Charlotte, NC 28262

Submitted By: Golder Associates Inc.
670 North Commercial Street, Suite 103
Manchester, NH 03101 USA

Date: October 2016

Project No. 103-87305.01

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October 18, 2016 Project No.: 103-87305.01

Electrolux Home Products, Inc.
10200 David Taylor Drive
Charlotte, NC 28262

c/o Andrew Stienecker, Assistant General Counsel

RE: SITE ASSESSMENT SUMMARY REPORT
FORMER ELECTROLUX HOME PRODUCTS, INC. FACILITY
JEFFERSON, IOWA

Dear Andrew:

Golder Associates Inc. (Golder) is pleased to present this Site Assessment Summary Report for the former Electrolux Home Products, Inc. site (Site) located in Jefferson, Iowa. This report summarizes past Golder assessment report submittals from 2011 to 2013, presents assessment activities and findings completed between April 2014 and July 2016, and provides the framework for future management of identified environmental conditions at the Site. Please contact the undersigned if you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

James S. Peace, PG
Senior Hydrogeologist

Alistair P. T. Macdonald, CPG, LSP
Senior Program Leader and Principal

Attachments

cc: Doug Ucci - Quantum Management Group, Inc.
Doug Arnold – Alston & Bird LLP

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1.0 INTRODUCTION

The former Electrolux Home Products, Inc. (Electrolux) manufacturing facility is located at 601 East Central Street in Jefferson, Greene County, Iowa (Site) (see Figure 1). The approximately 20.75 acre Site was previously improved by a 75,542 square-foot single-story former manufacturing/office/warehouse building constructed in 1960, with additions constructed in 1973, 1984, 1988, and 1992 (see Figure 3). The area of the Site formerly used for manufacturing operations encompasses approximately 7.5 acres of the 20.75-acre property owned by Electrolux (herein referred as the "facility" or ""former manufacturing area"). The remainder of the property, south and east of the facility, has historically been leased for agricultural use (see Figure 2). Electrolux terminated the agricultural leases for these areas.

The Site was developed in 1960 to manufacture dishwasher motor transmissions. Electrolux closed the facility in March 2011, decommissioned and removed the manufacturing equipment and other items from the facility buildings, and demolished the buildings. The concrete building slabs, parking areas, chain-link fence, and sidewalks are still in place.

In 2010, Electrolux commissioned Golder Associates Inc. (Golder) to review the Site history and develop an environmental assessment plan to evaluate subsurface conditions downgradient and exterior of the facility buildings as part of facility closure activities. Electrolux then voluntarily assessed Site subsurface conditions using a phased approach. Assessment activities completed between 2010 and 2013 were documented in the following reports and associated work plans:

- Golder Associates Inc., 2011, "Letter Report, Former Electrolux Manufacturing Facility, 601 East Central Street, Jefferson, Iowa" May 13, 2011.
- Golder Associates Inc., 2012, "Work Plan for Supplemental Soil and Groundwater Assessment, Former Electrolux Manufacturing Facility, 601 East Central Street, Jefferson, Iowa" January 2012.
- Golder Associates Inc., 2012a, "Supplemental Soil and Groundwater Assessment, Former Electrolux Manufacturing Facility, 601 East Central Street, Jefferson, Iowa" September 4, 2012.
- Golder Associates Inc., 2012b, "Work Plan Addendum for Supplemental Soil and Groundwater Assessment, Former Electrolux Manufacturing Facility, 601 East Central Street, Jefferson, Iowa" October 5, 2012.
- Golder Associates Inc., 2013, "Supplemental Soil and Groundwater Assessment Addendum Report, Former Electrolux Manufacturing Facility, 601 East Central Street, Jefferson, Iowa" May 15, 2013.
- Golder Associates Inc., 2014, "Soil and Groundwater Assessment Addendum No. 2, Former Electrolux Manufacturing Facility, 601 East Central Street, Jefferson, Iowa" January 7, 2014.

Since completing these activities, Electrolux completed additional follow-on Site assessment activities. The purpose of this report is to provide a summary of the previously prepared Site assessment reports (i.e., 2010 through 2013), present the results of assessment activities completed since 2014, present the

updated Conceptual Site Model (CSM), and provide the framework for future management of identified environmental conditions at the Site. For reference, appendices to this report combine supporting information from each individual assessment phase (e.g., boring and well installation logs, groundwater analytical lab data, slug test data, etc.).

2.0 SUMMARY OF ASSESSMENT ACTIVITIES

Electrolux voluntarily assessed Site subsurface conditions using a phased approach. Following completion of each assessment phase, Golder revised the CSM and developed a strategy for additional assessment. Section 3.0 describes the methodologies used to advance soil borings, install monitoring wells, collect and analyze soil and groundwater samples, and other related assessment activities. The following summarizes activities and findings for each phase of assessment:

1. Groundwater Flow Direction Assessment: In November and December 2010, Golder advanced ten boreholes and installed nine monitoring wells (MW-01 to MW-09) screened in the oxidized brown till (see Section 4.1 for a description of lithologic units) to assess the shallow groundwater (i.e., water table) flow direction across the developed portion of the Site. The shallow groundwater flow direction was identified to be towards the south.

2. Soil and Groundwater Assessment: Golder assessed soil and groundwater conditions downgradient and exterior of the facility buildings in March and April 2011. Golder advanced 14 soil borings and installed 14 monitoring wells (MW-10 through MW-23) screened in the oxidized brown till. The findings of the assessment indicated the presence of petroleum and chlorinated volatile organic compounds (CVOCs) impacted soils and groundwater along the southern edge of the facility building. Golder identified trichloroethene (TCE) and petroleum compounds (diesel/motor oil) at their highest concentrations in soil and groundwater near monitoring wells MW-19 and MW-22 (see Figure 3), respectively. Impacts along the downgradient boundary of the former manufacturing area were not detected and it was Golder's opinion that impacted groundwater did not extend downgradient to the Site property boundary.

3. Supplemental Soil and Groundwater Assessment: Golder prepared a work plan (Golder, 2012) outlining the objectives and field procedures to identify the source(s) of petroleum and CVOC impacts detected in soil and groundwater along the southern edge of the building and to obtain soil, water quality, geologic, and hydrogeologic information to support an evaluation of remedial alternatives. The assessment activities completed in April and May 2012 included:

   - Advancement of 51 membrane interface probes (MIP) equipped with a halogen specific detector (XSD), a photo-ionization detector (PID), and a flame ionization detector (FID) to screen for the presence of VOCs and petroleum hydrocarbons in soil and groundwater in areas with the potential for impacts (e.g., former solvent aboveground storage tank (AST) area, trenches, and sumps). The MIP points were advanced into the oxidized brown till and unoxidized gray till (collectively referred to as the upper tills).
   - Advancement of 24 Ultra-Violet Optical Screening Tool (**UVOST™**) laser-induced fluorescent probes (LIF) into the oxidized and unoxidized tills to screen for the presence of petroleum-related non-aqueous phase liquids (NAPL).
   - Advancement of 17 soil probes at locations adjacent to MIP/LIF locations to obtain shallow geologic information and confirmation soil samples.
   - Collection of 44 primary soil samples and five duplicate soil samples for laboratory analysis from selected depths at the 17 soil boring locations to confirm the MIP/LIF findings.
   - Installation of 10 groundwater monitoring wells (MW-24 to MW-31).
   - Collection of 21 primary groundwater samples and two duplicate groundwater samples for analysis of VOCs and/or Total Extractable Hydrocarbons (TEH).
   - Performance of slug tests at seven monitoring well locations.

The Supplemental Soil and Groundwater Assessment activities delineated most of the CVOC and petroleum constituents in the upper tills (i.e., approximately the upper 30 feet of soil) and identified the presence of NAPL in some areas of the Site.

4. Supplemental Soil and Groundwater Assessment Addendum: Golder prepared a Work Plan Addendum (Golder, 2012b) for additional assessment to complete the delineation of impacts within the upper tills, to assess groundwater quality in the underlying yellow-brown till, and to identify the type of NAPL present beneath the facility. Assessment activities completed during the November/December 2012 included:

   - Advancement of 25 MIP points (MIP-52 through MIP-77) to screen for the presence of CVOCs and petroleum hydrocarbons in soil and groundwater.
   - Advancement of 60 **UVOST**™ LIF probes (LIF-24 to LIF-84) to screen for the presence of petroleum-related NAPL.
   - Installation of 25 groundwater monitoring wells (MW-32 to MW-55).
   - Installation of one double-cased monitoring well (MW-45) screened in the unoxidized till and three double-cased monitoring wells (MW-43D, MW-46, and MW-47D) screened in the yellow-brown till.
   - Collection of 66 primary groundwater samples and seven duplicate groundwater samples for analysis of VOCs and/or TEH.
   - Collection of six soil samples from the yellow-brown till for laboratory analysis of CVOCs.
   - Collection of NAPL samples from monitoring wells MW-21 and MW-35 for laboratory fingerprint analysis.
   - Collection of four NAPL-impacted soil samples for laboratory petroleum fingerprint analysis.
   - Performance of slug tests at four monitoring well locations.

   Based on this work Golder concluded the following:

   - While the nature and extent of soil and groundwater impacts in the upper tills (i.e., upper 30 feet) was mostly complete, there were two areas, located southeast and south of the former manufacturing facility that required limited additional groundwater assessment.
   - CVOC impacts to yellow-brown till soil and groundwater were identified. Additionally, the yellow-brown till was found to be composed of sand and sandy silts more permeable than the overlying unoxidized gray till (silty clay) in some areas of the Site.

   To complete the delineation of the nature and extent of soil and groundwater impacts in the upper tills and to further assess the yellow-brown till, Golder completed additional assessment activities in February/March 2013, which included:

   - Installation of two, single-cased monitoring wells (MW-56S and MW-60) screened in the oxidized brown and unoxidized gray till units (see Figure 3).
   - Advancement of one soil boring (GA-13-SB-01) to a depth of approximately 65 ft bgs north of the former manufacturing building to better characterize the lithology below the upper tills. The driller collected continuous soil samples from the boring and Golder submitted eight soil samples to a certified laboratory for geotechnical analysis.
   - Installation of five double-cased monitoring wells (MW-56D, MW-57, MW-58, MW-59, and MW-61) screened in the yellow-brown till. Monitoring well MW-61 was installed at an

assumed upgradient location. The remaining four monitoring wells were installed near the downgradient extent of the facility.

- Collection of one round of water level measurements from the seven newly-installed and 62 existing monitoring wells.
- Collection of groundwater samples from the seven newly-installed monitoring wells and three existing deep monitoring wells (MW-43D, MW-46, and MW-47D).

Upon evaluation of the February/March 2013 assessment results, Golder concluded the following:

- A fine-grained, gray to black to dark gray very stiff to hard silty clay underlies the yellow-brown till. Golder designated the soils beneath the yellow-brown till as the "dark gray till."
- Assessment activities successfully delineated the nature and extent of impacts to soil and groundwater in most areas of the Site. The delineation of petroleum and CVOC impacts to soil and groundwater in the upper tills is complete.
- The vertical extent of VOC groundwater impacts below the yellow-brown till and horizontal extent of VOC-impacts in the yellow-brown till in the southeast corner of the manufacturing facility (southeast of MW-57) required further delineation.

5. Soil and Groundwater Assessment Addendum No. 2: Golder revised the Work Plan Addendum (Golder 2012b) outlining the objectives and field procedures to complete the vertical and horizontal delineation of VOC groundwater impacts in the yellow-brown till. Activities completed during the September/October 2013 field assessment included:

- Installation of three double-cased monitoring wells (MW-62 and MW-63 screened in the dark gray till and MW-64 screened in the yellow-brown till).
- Installation of one triple-cased monitoring well (MW-65) screened in the dark gray till in the suspected source area near MW-47D.
- Collection of 16 soil samples for geotechnical analysis.
- Collection of 18 primary groundwater samples and two duplicate groundwater samples for analysis of CVOCs, 1,4-dioxane, and monitored natural attenuation parameters.
- Performance of slug tests at six monitoring well locations.

Golder evaluated the September/October 2013 assessment results and concluded the following:

- Impacts can be broadly separated into two categories: petroleum/NAPL impacts, and CVOC impacts, including 1,4-dioxane, which was detected in several shallow (i.e., oxidized/unoxidized till) groundwater samples.
- The petroleum/NAPL impacts are primarily confined to the oxidized brown and unoxidized gray tills. TEH impacts to groundwater are present in areas where NAPL is present, but attenuate rapidly vertically. The risk posed by the petroleum-impacted soil and groundwater is concluded to be low as analysis of the samples indicated the absence of typical risk-driving VOCs (e.g., benzene, ethylbenzene, toluene, xylene, etc.) and SVOCs (e.g., benzo-a-pyrene, benzo-a-anthracene, anthracene). Fingerprint analysis of NAPL-impacted soils indicates that the oils have undergone significant weathering and degradation.
- CVOC impacts, primarily TCE and its breakdown products, including cis-1,2-dichlorethene (cis-1,2-DCE) and vinyl chloride, are present in the upper tills, and to a lesser extent in the yellow-brown till. MIP profiling indicates that the highest CVOC concentrations occur at the interface between the oxidized brown and unoxidized gray till, which is coincident with,

and consistent with, a contrast in hydraulic conductivity between these two units. The unoxidized gray till is characterized by a very low hydraulic conductivity. Migration of CVOCs into the unoxidized gray till and in some areas into the yellow-brown till likely occurs through diffusion, rather than advection (groundwater) flow.

- Site data indicate that significant anaerobic biological reductive dechlorination is occurring in soils and groundwater which, along with the generally low transmissivity of the till materials, limits the horizontal and vertical extent and potential migration of CVOC impacts.
- Because facility-related impacts do not extend off Electrolux-owned property and that Electrolux intends to maintain control of the property, Golder recommended groundwater monitoring to evaluate the groundwater data in the context of a potential monitored natural attenuation (MNA) remedy.

6. 2014 Groundwater Monitoring: To obtain temporal groundwater quality information and to evaluate the degree of natural attenuation of groundwater impacts, Golder completed three rounds of groundwater monitoring in April, July, and October 2014. The groundwater monitoring program included:

- Collection of water level measurements and groundwater samples from 21 Site monitoring wells.
- Measurement of field water quality parameters (specific conductivity, pH, dissolved oxygen, and temperature) prior to sample collection.
- Laboratory analysis of collected samples for VOCs and MNA parameters including methane, ethane, ethene, sulfate, nitrate, nitrite, iron, manganese, and total organic carbon (TOC).

The analytical results indicated that the CVOC-impacted groundwater in the yellow-brown till had been adequately delineated (i.e., decreasing CVOC concentrations in the downgradient monitoring well - MW-64).

Groundwater samples collected from monitoring well MW-65 (screened in the dark gray till) indicated an increasing TCE concentration trend over time. To further assess groundwater quality near MW-65, Golder collected groundwater samples from MW-47D (screened in yellow-brown till above MW-65) and MW-65 in December 2014 and March 2015. The CVOC concentrations detected in the groundwater samples collected from MW-65 continued to increase. Golder compared the groundwater geochemistry data (e.g., sulfate, chloride, and VOC constituents) between MW-47D and MW-65 and concluded that the chemical properties of the groundwater in each well are different indicating that groundwater from MW-47D was not migrating vertically to MW-65.

Golder also assessed potential groundwater receptors near the Site by conducting a literature review of the Jefferson Groundwater Investigation, Greene County, Iowa, - Iowa Geological and Water Survey Technical Information Series 56, prepared by the Iowa Department of Natural Resources (IDNR), dated December 2013. This document provides a summary of the Pleistocene Sand and Gravel Unit, local geology, thickness of the Pleistocene Sand and Gravel Unit, and models the groundwater capture zones of the two City of Jefferson municipal well fields screened within the Pleistocene Sand and Gravel Unit. The IDNR study indicates that the Site is located just beyond the 10-year capture zone (i.e., near the southwest corner of the Site) for the well field located within the city limits of Jefferson (i.e., approximately 4,200 southwest of the Site). The capture zone of a second well field, located approximately 5,700 feet northwest of the Site, did not extend towards the Site (see Appendix A for capture zone extent). In addition, the study indicates that the Site is located on the westernmost edge of the Pleistocene Sand and Gravel Unit and may only be 10 feet thick or less underlying the Site.

Golder also performed a desktop review of Iowa Geological Survey's GeoSam database (https://geosam.iihr.uiowa.edu/). This database provides location, identification, and other key information about available well, rock exposure, or geologic information submitted to the Iowa Geologic Survey. Based on Golder's review of the database, there are three geothermal wells located west of the Site in the clay till beyond the lateral extent of the Pleistocene Sand and Gravel Unit in this region. The database did not identify any private potable wells located within approximately 3/4 miles of the Site.

The Hamilton Redi-Mix Concrete Plant, located approximately 6,200 feet northeast of the Site, uses the Pleistocene Sand and Gravel Unit as a water source in their concrete production process. Based on the well screen and pump specifications, the amount of water that could be extracted from this well is several orders of magnitude lower than the City of Jefferson production wells located south of the concrete plant. Therefore, the pumping rate at the concrete plant is inconsequential compared to the City of Jefferson wells and would not alter the City's capture zone.

7. Vertical Delineation of Yellow-Brown Till and Pleistocene Sand and Gravel Unit: In August 2015 during follow-on discussions and a meeting with USEPA to discuss the latest CSM, Electrolux decided to perform additional assessment activities to address a perceived data gap in the downgradient extent of CVOC-impacted groundwater near MW-64 (i.e., near contact between yellow-brown till and underlying dark gray till) and to assess the Pleistocene Sand and Gravel Unit underlying the dark gray till. In October 2015, Golder installed two additional double-cased groundwater monitoring wells, designated MW-66 and MW-67, screened in the yellow-brown till and Pleistocene Sand and Gravel Unit, respectively. With concurrence of USEPA, monitoring well MW-66 was installed as a well pair near MW-64 and monitoring well MW-67 was installed in the former agricultural field in the southwest corner of the Site (i.e., between the suspected source area and the capture zone for the City of Jefferson well field). Golder collected groundwater samples from these wells and MW-65 in November 2015 and July 2016.

   Golder evaluated the 2015 and 2016 groundwater results and concluded the following:

   - The nature and extent of CVOC-impacted groundwater in the yellow-brown till has been appropriately delineated. CVOC concentrations in the downgradient wells installed in the yellow-brown till (MW-64 and MW-66) are less than 5 micrograms per liter (ug/l – MCL level).
   - The Pleistocene Sand and Gravel Unit has not been impacted by Site-related CVOCs (i.e., no CVOCs detected in the MW-67 groundwater samples).
   - TCE concentrations detected in the groundwater samples collected from MW-65 appear to have stabilized based upon the current data set.

   In addition to the groundwater monitoring event in July 2016, Golder completed a visual well inventory of properties located within approximately 0.3 miles of the Site to assess potential groundwater receptors (see Appendix A). Golder did not observe any private wells within the search radius, which confirmed Golder's desktop review of the Iowa Geological Survey's GeoSam database water well records.

3.0 SUMMARY OF ASSESSMENT METHODOLOGIES

Assessment activities were completed in accordance with field procedures described in the Work Plans (Golder, 2012, 2012b) to maintain consistency throughout the assessment field program. Golder subcontracted Matrix Environmental, LLC of Osseo, Minnesota (Matrix) to perform the MIP/LIF surveys, advance confirmatory soil borings, and install monitoring wells using DPT methods. Golder subcontracted Boart-Longyear (now Cascade) to install multi-cased wells using a combination of rotary auger and roto-sonic drilling methods. JEO Consulting Group, Inc. of Carroll, Iowa (JEO), a State-certified surveyor, provided Golder surveying services.

The following sections describe the methods used to complete the assessment activities.

3.1 MIP Assessment

Golder used the MIP to help delineate the extent of VOC impacts in the oxidized and unoxidized tills (i.e., upper 30 feet). The MIP detects the presence of total VOCs in the vapor, sorbed, and dissolved phases. The permeable membrane, which is located on the side of the probe, is a thin film polymer impregnated into a stainless steel screen for support. The membrane is heated to approximately 100 to 120 degrees Celsius to accelerate the volatilization of any VOCs near the probe. A clean carrier gas is continuously swept behind the membrane, which creates a concentration gradient, thereby causing the volatilized VOCs to diffuse across the membrane into the carrier gas. The carrier gas then flows to separate gas detectors located at the surface, including a photo-ionization detector (PID), a halogen specific detector (XSD), and flame ionization detector (FID).

The PID is most effective at detecting aromatic hydrocarbons such as benzene, toluene, ethylbenzene, and xylene (BTEX compounds). The XSD is most effective at detecting chlorinated compounds such as Tetrachloroethene (PCE) and TCE. The FID is most effective at detecting aromatic hydrocarbons beyond the typical ranges of the PID. Information from the detectors is logged in real-time as the probe is advanced into the subsurface, thereby producing a continuous log of VOC concentration with depth.

The detectors do not provide a quantitative concentration of VOCs in the groundwater or soil and requires the collection of samples to confirm the VOC concentrations in soil and groundwater. However, the response level from the detector generally corresponds to the amount of VOCs present in the carrier gas, which is proportional to the amount of VOCs in the soil or groundwater at the MIP location. The MIP equipment is a proven technology for delineating source area soils and groundwater and can detect CVOCs down to approximately 500 parts per billion.

The MIP also includes a soil electrical conductivity (EC) probe, which can assist in identifying changes in soil type. By advancing the MIP and EC at the same time, a detailed profile of subsurface lithology can be correlated with detections of VOCs.

Golder checked the MIP response to known groundwater concentrations (low to high VOC concentrations in groundwater) detected in several monitoring wells (i.e., MW-16, MW-19, and MW-21) to confirm that MIP was appropriate to detect VOCs on Site. The MIP responses were favorable and Matrix advanced a series of probe transects adjacent to the former Site building parallel and perpendicular to groundwater flow centered near MW-19 (i.e., highest groundwater VOC detections). Probes were also advanced at or adjacent to areas of interest such as known or suspected former solvent storage and use areas. The advancement depth of the MIP/EC points were based on the relative MIP response at each probe location. Golder evaluated the MIP/EC data daily and modified the probe locations and depths based on the findings.

Golder performed the MIP/EC investigation in general accordance with American Society for Testing and Materials (ASTM) *Standard Practice for Direct Push Technology for Volatile Contaminant Logging with the Membrane Interface Probe (MIP)–D7532-07*. Matrix advanced 77 MIP probes at the locations shown in Figure 4. The MIP logs, data tables, and associated figures are provided in Appendix B.

Golder used the MIP data to provide qualitative results of the VOC extent in the subsurface. Golder confirmed the MIP findings by installing monitoring wells to delineate the extent of the groundwater impacts.

3.2 LIF Assessment

Golder used the **UVOST™** survey to help delineate the extent of NAPL in the oxidized and unoxidized tills (i.e., upper 30 feet). LIF technology detects the presence of NAPL in the subsurface. The chemical sensor consists of a laser that fires short pulses of light into an optical fiber that runs through the probe. As the laser pulses pass into the soil through the probe window, NAPL responds by giving off a characteristic "glow." This emitted light is carried back to the surface over a second optical fiber, and its relative strength measured with a detector. The optical screening method provides a nearly continuous profile of NAPL distribution as the probe is advanced into the subsurface. LIF is a qualitative technology and requires the collection of soil samples to confirm the presence and type of NAPL in the subsurface.

Golder performed the LIF survey to assess the potential presence of NAPL along the southern edge of the building and beneath the Site building near former sumps, trenches, and petroleum storage locations. The LIF assessment was initiated with three probes (LIF-1, 2, and 3) in the area of MW-21, MW-21A, and MW-22 (see Figure 3) in known areas of NAPL to confirm LIF was capable of identifying petroleum impacts/NAPL in this area of the Site. LIF method was able to detect NAPL and was used to delineate the extent of NAPL throughout the Site. Golder evaluated the LIF data daily and modified the probe locations and depths as appropriate based on the findings. Matrix advanced 84 LIF probes at the locations shown in Figure 5. The LIF logs and figures are provided in Appendix C.

The driller immediately grouted the MIP and LIF boreholes with a cement-bentonite slurry using a tremie pipe following completion of each probe. Probe locations within the footprint of the concrete slab floor were also patched with concrete.

Golder used the LIF data to provide qualitative results of the NAPL extent in the subsurface. Figure 6 illustrates the general LIF response. Golder confirmed the LIF findings by collecting soil samples and installing monitoring wells to delineate the extent of the soil and groundwater impacts.

3.3 Soil Borings

3.3.1 Direct Push Technology Rig

Shallow soil borings (i.e., <30 ft bgs) were primarily advanced using a track-mounted Geoprobe® Direct Push Technology (DPT) rig, which pushes and pneumatically hammers a soil boring to the target depth. The driller collected continuous five-foot long soil samples from the ground surface (or approximate base of the asphalt or concrete pavement) to the bottom of the boring using a Geoprobe® steel macro-core sampler with dedicated inner polyethylene sleeves. After removal of the macro-core sampler from the ground, the driller extracted the dedicated inner polyethylene sleeve with the soil core from the steel sampler and cut the polyethylene tube lengthwise to expose the soil core for logging and collection of field screening and/or laboratory samples.

Field personnel screened the soil samples for the presence of VOCs using a Photovac MiniRae 2000 organic vapor analyzer (OVA) or equivalent equipped with a photoionization detector (PID). Subsequent to the soil OVA screening results, Golder field personnel collected soil samples for laboratory analyses at the interval with the highest OVA reading, from the interval with visual or olfactory indication of a release, and/or from the interval identified by the MIP/LIF assessment as having impacted soil. Soil boring logs are provided in Appendix D.

3.3.2 Roto-Sonic Drill Rig

Cascade used a roto-sonic drill rig to advance soil borings underlying the oxidized/unoxidized till units (i.e., below 30 ft bgs). The driller collected continuous soil samples from the ground surface (or approximate base of the asphalt or concrete pavement) to the bottom of the boring using a roto-sonic soil sampler. After removal of the roto-sonic sampler from the ground, the driller extruded the recovered sample core into a dedicated plastic sleeve for logging and collection of field screening and/or laboratory samples. Soil samples were screened using the PID as described above. Subsequent to the soil OVA screening results, Golder field personnel collected soil samples for laboratory analyses at the interval with the highest OVA reading or from the interval with visual or olfactory indication of a release. Soil boring logs are provided in Appendix D. Cuttings generated during the drilling activities were placed in 55-gallon drums for characterization and off-site disposal.

3.4 Soil Sampling

Golder collected soil samples based on the objective for each assessment phase and submitted the soil samples to TestAmerica in Cedar Falls, Iowa for analysis. Soil samples were analyzed for one or more of the following parameters:

- VOCs using EPA Method 8260B
- Total extractable hydrocarbons (TEH) using Iowa Method OA-2
- Total Petroleum Hydrocarbons (TPH) gasoline using Iowa Method OA-1
- Oil and grease using EPA Method 1664A or Method SW 9071 A
- Resource Conservation and Recovery Act (RCRA) eight metals (i.e., arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) using various methods
- Polychlorinated biphenyls (PCBs) using EPA Method 8082

Golder submitted four soil samples to Alpha Analytical Inc. of Mansfield, Massachusetts (Alpha) to perform Parafinic, Isoparafinic, Aromatic, Naphthenic, Olefinic (PIANO) and Petroleum Hydrocarbon Identification analysis of the NAPL detected on Site (near LIF-1, LIF-3, LIF-8 and LIF-12 – see Figure 5). The soil analytical data are provided in Appendix E. The soil analytical results are provided in Table 1.

Golder collected a total of 22 representative soil samples from the oxidized till, unoxidized till, yellow-brown till, and underlying dark gray till for geotechnical analysis. Golder submitted the soil samples to Golder's geotechnical laboratory in Atlanta, Georgia for analysis. The laboratory analyzed the soils for grain size (ASTM D422) to define the gradation of the soil sample and Atterberg Limits (ASTM D4318) to define the plasticity of the soil sample (i.e., ML, MH, CL, CH). Golder used the laboratory Unified Soil Classification System (USCS) soil descriptions as a guide to classify Site soils on the boring logs. The geotechnical analytical reports are provided in Appendix F.

3.5 Monitoring Well Installation

Golder installed 75 monitoring wells to delineate the horizontal and vertical extent of petroleum and VOC-impacted groundwater at the locations shown in Figure 3. The well construction details are provided in Table 2 and the boring logs are provided in Appendix D. The groundwater monitoring well installation program included:

- Installation of 58 1.5-inch diameter, polyvinyl chloride (PVC) monitoring wells (MW-1 through MW-42, MW-43S, MW-43I, MW-44, MW-47S through MW-55S) using a DPT drill rig. The monitoring wells were constructed using five to ten feet of pre-packed well screen and approximately two to 25 feet of riser. The driller placed sand in the annulus space to approximately two feet above the well screen and then completed the monitoring well by placing bentonite chips to the ground surface. Matrix completed the wells with either a flush-mount protective cover or a stickup protective casing.
- Installation of two monitoring wells (MW-56S and MW-60) using roto-sonic drilling techniques. The wells were installed in the oxidized/unoxidized tills with a two-inch diameter PVC well with five feet of 0.01-inch slotted screen. The driller placed sand in the

annulus space to approximately two feet above the well screen and then completed the monitoring well by placing an approximate two-foot thick bentonite seal and then grout to the ground surface. Matrix completed the wells with a stickup protective casing.

- Installation of 12 double-cased monitoring wells and two modified double-cased monitoring wells using roto-sonic drilling techniques. The double-cased monitoring wells were installed as follows:
  - Double-cased wells (MW-43D, MW-45, MW-56D, MW-57, MW-58, MW-59, MW-61 through MW-64, MW-66, and MW-67): The driller advanced a 10-inch diameter borehole to an approximate depth of 29 to 32 ft bgs and installed a 6-inch steel casing keyed approximately two feet into the yellow-brown till (MW-67 six-inch casing installed to a depth of 80 ft bgs). The annulus between the borehole and casing was filled with a cement-bentonite grout. The driller allowed the grout to set before drilling within the six-inch steel casing and installing a two-inch diameter PVC well with 5 to 10 feet of 0.01-inch slotted screen. Matrix completed the wells with a stickup protective casing or flush-mount cover (see Table 2).
  - Modified double-cased wells (MW-46 and MW-47D): The driller advanced a 12-inch diameter borehole to an approximate depth of 22 ft bgs and set a temporary 12-inch casing. The driller then advanced a 10-inch diameter borehole within the 12-inch temporary casing to an approximate depth of 32 to 33 ft bgs (keyed approximately two-feet into the yellow-brown till) and set a six-inch steel casing. The driller removed the 10 and 12-inch diameter casings while grouting the six-inch permanent casing in place. The grout was allowed to set before drilling through the steel casing and installing a two-inch diameter PVC well with five feet of 0.01-inch slotted screen. Matrix completed the wells with flush-mount protective covers (see Table 2).
- Installation of one triple-cased monitoring well (MW-65) screened in the dark gray till at the location shown in Figure 3. The driller advanced a 17.25-inch diameter borehole using a rotary auger drill rig to an approximate depth of 29 ft. bgs and installed a 12-inch diameter steel casing (i.e., keyed into the unoxidized gray till). The annulus between the borehole and casing was filled with a cement-bentonite grout. The driller allowed the grout to set for a minimum of 48-hours before drilling within the steel casing with a ten-inch diameter borehole using roto-sonic drilling methods to an approximate depth of 61 ft. bgs and installed a 6-inch steel casing (i.e., keyed approximately 12 feet into the dark gray till). The driller allowed the grout to set a minimum of 24-hours before drilling within the 6-inch steel casing and installing a 2-inch diameter PVC well with 5 feet of 0.01-inch slotted screen in the dark gray till to an approximate depth of 73 ft. bgs. This well was completed with a flush-mount well cover.

3.6 Water Level Monitoring and Hydraulic Conductivity Testing

Prior to collecting groundwater samples during each monitoring event, Golder measured water levels in all or a subset of the monitoring wells. Golder calculated water elevations by subtracting the measured depth to groundwater from the surveyed top-of-casing elevations. Table 3 provides the water elevation data.

Golder performed hydraulic conductivity testing (slug testing) in 18 monitoring wells in accordance with the Work Plan (Golder, 2012). Due to slow recharge, Golder was able to perform manual rising-head slug tests (i.e., using a hand-held water level meter and stopwatch) in nine of the 18 monitoring wells. Golder field personnel used a pressure transducer and data logger to obtain slug test data from the other nine monitoring wells that had quicker recharge rates. Golder used Hvorslev and Bower, and Rice Methods to calculate the hydraulic conductivity values in accordance with SOP-11 of the Work Plan (Golder, 2012).

The slug test results are provided in Table 4 and slug test measurement data and calculations are provided in Appendix G.

3.7 Groundwater Sampling

Golder collected 191 groundwater samples and 21 quality control samples during the assessment activities in accordance with the Work Plan (Golder, 2012). Depending on the objective of the assessment phase, groundwater samples were analyzed for one or more of the following parameters:

- VOCs using EPA Method 8260C
- TEH using Iowa Method OA-2
- 1,4-Dioxane using EPA Method 8260B SIM
- PCBs using EPA Method 8082
- Extractable Petroleum Hydrocarbons/Volatile Petroleum Hydrocarbons (EPH/VPH) using the Massachusetts Department of Environmental Protection (MassDEP) – Volatile Petroleum Hydrocarbons (GC) Method
- MNA parameters including:
  - Nitrate using Method SM 4500 NO3 E
  - Nitrogen as Nitrite using Method SM 4500 NO2 B
  - Total Organic Carbon using EPA Method 9060A
  - Sulfate using EPA Method 9056A
  - Iron using EPA Method 6010C
  - Manganese using EPA Method 6010C
  - Chloride using EPA Method 9056A
  - Methane, Ethane and Ethene using AM20GAX

The groundwater collection forms and groundwater analytical data are provided in Appendix H and Appendix I, respectively. The groundwater analytical data are summarized in Table 5.

3.7.1 Light, Non-Aqueous Phase Liquid Sampling

Golder observed NAPL in monitoring well MW-21 during the April 2012 assessment and in monitoring wells MW-21 and MW-35 at approximate thicknesses of 0.21 feet and 0.09 feet, respectively during the November/December 2012 assessment. Golder collected an NAPL sample from each well for submittal to TestAmerica for analysis of VOCs using EPA Method 8260C and TEH using Iowa Method OA-2. In addition to the two NAPL samples, Golder collected groundwater samples at locations with possible petroleum-impacts for submittal to TestAmerica for analysis of VOCs using EPA Method 8260C, TEH using Iowa Method OA-2 and EPH/VPH using MassDEP methods. EPH/VPH is an EPA-approved method for assessing petroleum compounds in soil and groundwater, which has not been adopted by IDNR. The analytical laboratory reports are provided in Appendix I. The EPH/VPH groundwater analytical results are provided in Table 6.

4.0 ASSESSMENT RESULTS

The following sections present an interpretation of the geology, hydrogeology and groundwater quality based on the assessment activities.

4.1 Geology

4.1.1 Regional Geology

According to Bedrock Geology of South-Central Iowa (Pope, 2002), bedrock underlying the Site belongs to the Cherokee Group comprising lower Middle-Pennsylvanian deposits of shale, sandstone, coal, and mudstone. These materials were deposited in various environments that resulted from glacial-eustatic rise and fall of sea level (Heckel, 1994). During personal communication with Mr. Bob McKay, of the Iowa Geological Survey, he stated that depth to bedrock is approximately 200 feet near the Site.

The City of Jefferson 2010 Consumer Confidence Report (CCR) on Water Quality indicates that Pleistocene alluvial sands and gravel overlie bedrock in the Jefferson area. Boring logs for wells advanced near Jefferson obtained from the Iowa Geological Survey on-line website, indicate that approximately 100 feet of glacial till overlies the Pleistocene sand and gravel unit. The CCR identified, “the Pleistocene aquifer was determined to be not susceptible to contamination because the characteristics of the aquifer and overlying materials prevent easy access of contaminants to the aquifer.”

According to the U.S. Department of Agriculture on-line soil survey for Greene County (USDA, 2009), the surficial soils on the former manufacturing area of the Site include the Clarion Loam (Map ID 138B2) and the Canisteo Clay Loam (Map ID 507). These glacial deposits include silts and clayey loams to a depth of at least five feet below ground surface.

4.1.2 Site Geology

Golder observed the advancement of 77 soil borings (75 monitoring wells) and collection of 22 soil samples for geotechnical analysis to characterize the geology underlying the Site. In addition to the soil boring data, Golder reviewed the Jefferson Groundwater Investigation, Greene County, Iowa, - Iowa Geological and Water Survey Technical Information Series 56 (IDNR, 2013) to assess Site geology.

Golder has identified five till units and the Pleistocene Sand and Gravel Unit based on lithologic observations and grain size analysis. These units (shallow to deep) include the following:

- Oxidized brown till: from ground surface to approximately 13 to 17 ft. bgs - an oxidized, soft to stiff, mottled, brown to yellowish brown (10 YR 5/4) Silty Clay and fine to coarse Sand (CL), herein referred to as the “oxidized brown till”.

  Golder observed intermittent thin (i.e., 0.25- to 1-inch thick) sand seams within the silty clay at several locations. The moisture content of the silty clay varied with density (i.e., the softer the silty clay the higher the water content). Golder identified fill materials with a

greater sand content near the southwest corner of the former manufacturing building near monitoring wells MW-22 and MW-23 (see Figure 3).

Golder also observed potential fill near SB-04 (southwestern corner of the facility building) from approximately 0 to 17 ft. bgs. SB-04 is located in an area of the former Building 1 where multiple concrete-lined sub-slab pits were present (see Golder, 2013).

- Unoxidized gray till: from the base of the oxidized brown till to approximately 29 to 33 ft. bgs - an unoxidized, firm to stiff, gray to dark gray (N4), Silty Clay and fine to coarse Sand, with trace fine to coarse gravel (CL), hereafter referred to as the "unoxidized gray till". The unoxidized gray till is generally more plastic, has a greater clay content and has less coarse-grained material than the overlying oxidized brown till. Assessment results indicate that the grain size contrast between the oxidized brown till and unoxidized gray till reduces the potential for vertical migration of identified VOC and petroleum hydrocarbon constituents.
- Yellow-brown till: from approximately 29 to 33 ft. bgs to 42 to 49 ft. bgs – a loose to firm yellow-brown (10yr 6/2) fine to coarse Sand to Silt, trace fine to coarse gravel, moist to wet (SM to ML), hereafter referred to as "yellow-brown till". The grain size of the yellow-brown till varies vertically across the facility. Golder observed a dry, hard, pale yellowish brown (10yr 6/2), sandy (fine to coarse) Silty Clay, trace fine to coarse gravel (CL) layer near MW-47D underlying the unoxidized gray till. This silty clay layer was not observed in other areas of the Site. The yellow-brown till grain size also varies horizontally across the Site.
- Dark gray till: from approximately 42 to 49 ft. bgs to approximately 89 ft. bgs – a dense olive brown to gray to dark gray to black Silty Clay (CL) to Silt/Clayey Silt (ML), moist to dry, hereafter referred to as "dark gray till". The dark gray till appears to be dry and was more dense (i.e., typically very stiff to hard) than the overlying yellow-brown till. The silty clay (CL) soils observed in soil borings MW-62, MW-63, and MW-65 located on the central and southern side of the manufacturing facility were finer-grained and thicker than the silty soils (ML) observed in soil boring MW-61 advanced to the north of the former facility building. In the southwest portion of the Site, the stiff silty clays with trace to some sand and gravel were observed at a depth up to 89 ft bgs in soil boring MW-67.
- Pleistocene Sand and Gravel Unit: from approximately 89 to 97 ft bgs – a loose, wet, light brown fine to coarse sand with trace gravel (SP/SW) was observed in soil boring MW-67. This unit predominately consists of a medium sand with lesser amounts of fine and coarse sand and trace gravel that coarsened with depth. Fine sand lenses were present at 90 ft bgs and gravel was present at the base of the unit at 97 ft bgs. The observed thickness of the Pleistocene Sand and Gravel Unit at MW-67 is consistent with the Jefferson Groundwater Investigation (IDNR, 2013).
- Lower dark gray till: Below the Pleistocene Sand and Gravel, from 97 ft bgs to 105 ft bgs (end of boring), very stiff silty clay with some sand was observed in the soil boring MW-67.

A generalized geologic profile for the Site is provided in Figure 7. Boring logs are provided in Appendix D.

4.2 Hydrogeology

4.2.1 Regional Hydrogeology

As described in Section 4.1.2, the Jefferson area is underlain by approximately 90 to 100 feet or more of a predominately fine-grained glacial till that is not suitable as a potable water source due to low water yields. The low-permeability till serves as an aquitard that confines the underlying Pleistocene Sand and Gravel Unit. According to the Jefferson Groundwater Investigation, Greene County, Iowa, - Iowa Geological and Water Survey Technical Information Series 56 (IDNR, 2013), the City of Jefferson obtains its potable water

supply from two well fields screened in the Pleistocene Sand and Gravel Unit, which can produce 50 to 500 gallons per minute. Pleistocene Sand and Gravel hydraulic conductivity values, calculated from two pumping tests from wells located in Jefferson, ranged from 183 to 293 ft/day (mean of 240 ft/day or 8.5E-02 cm/sec; IDNR, 2013). The IDNR study indicates that the Site is located just beyond the 10-year capture zone (near the southwest corner of the Site) for the well field located within the Jefferson City limits (Wells 2, 4, 6, and 9 located approximately 4,200 southwest of the Site). The capture zone for the second Jefferson well field (Wells 7 and 8), located approximately 5,700 feet northwest of the Site, does not extend towards the Site. In addition, the study indicates that the Site is located on the westernmost edge of the Pleistocene Sand and Gravel Unit and appears to be 10 feet thick or less underlying the Site. According to the IDNR study, the Pleistocene Sand and Gravel Unit does not extend to the west of the Site but thickens to the east and south of the Site.

According to the Iowa Geological Survey, there are no potable water wells located within 0.75-miles of the Site. Golder did not observe any indication of residential or commercial wells during the drive-by well inventory performed in the surrounding neighborhoods in July 2016 (see Appendix A). Consistent with the lack of well observations, Golder observed blue water line markings (i.e., DigSafe utility locate markings) near several of the residential properties and observed fire hydrants throughout the neighborhoods north, west, and south of the Site (agricultural fields are located east of the Site). The blue water line marking and fire hydrants indicate that the neighboring properties obtain water from the City of Jefferson public water supply. Pictures of the fire hydrants and City of Jefferson wells are provided in Appendix A.

4.2.2 Site Hydrogeology

Golder performed hydraulic conductivity testing (slug tests) in 18 monitoring wells from 2012 through 2015. Hydraulic conductivity test results are summarized in Table 4 and hydraulic conductivity test data and calculations are provided in Appendix G. The following summarizes the average (geometric mean) horizontal hydraulic conductivity value for each lithologic unit:

- Oxidized brown till: 2.06×10^{-6} cm/sec (5.84×10^{-3} ft./day)
- Unoxidized gray till: 2.83×10^{-8} cm/sec (8.02×10^{-5} ft/day)
- Coarse-grained Yellow-brown till: 1.42×10^{-4} cm/sec (4.02×10^{-1} ft./day)
- Fine-grained Yellow-brown till: 4.90×10^{-6} cm/sec (1.39×10^{-2} ft./day)
- Fine-grained unoxidized dark gray till: 4.69×10^{-6} cm/sec (1.33×10^{-2} ft./day)
- Coarse-grained unoxidized dark gray till: 7.68×10^{-5} cm/sec (2.17×10^{-1} ft./day)

The calculated hydraulic conductivity values are generally consistent with Golder's lithologic observations. The finer-grained till material exhibit hydraulic conductivities ranging from approximately 3×10^{-8} cm/sec to 5×10^{-6} cm/sec. The coarser-grained tills and fill and/or reworked material exhibit hydraulic conductivities approximately one to two orders of magnitude higher.

All of the units, except the coarse-grained yellow-brown till and the Pleistocene Sand and Gravel are best characterized as aquitards. Many of the wells screened in the units are very slow to recover after purging and are typified by low horizontal hydraulic conductivity values. The rate and volume of groundwater flow in these units is very low and consistent with the observed limited horizontal migration of Site-related impacts. Vertical flow within and between these units is also expected to be very low. Vertical hydraulic conductivity in these types of materials is usually lower than horizontal hydraulic conductivity values. The findings from the Site assessments are consistent with regional descriptions of the tills as confining units.

The coarse-grained yellow brown till was found to be relatively more permeable than the other, finer-grained tills. Measured hydraulic conductivity values are consistent with the observed lithology. Horizontal groundwater flow in this unit is expected to be higher than the other till units. In addition, unlike the other units, a consistent potentiometric surface can be developed for the yellow-brown as illustrated in Figure 8, which illustrates a general groundwater flow direction towards the south/southeast. Golder calculated a horizontal hydraulic gradient based on the interpreted potentiometric surface at the locations illustrated in Figure 8. Calculated hydraulic gradients ranged from 0.003 ft./ft. to 0.03 ft./ft. and appears to steepen to the southeast.

Golder calculated a seepage flow velocity for the yellow-brown till based on the interpretation of the potentiometric surface presented in Figure 8 and an assumed effective porosity value of 25% (Fetter, 1988). Calculated horizontal seepage flow velocity values range from approximately 6.1×10^{-2} ft./yr. using the lowest calculated hydraulic conductivity and calculated hydraulic gradient to approximately 17 ft./yr. using the highest calculated hydraulic conductivity and calculated hydraulic gradient. The average calculated seepage velocity for the yellow-brown till was approximately 1.8 ft./yr. The seepage flow velocity calculations are provided in Appendix J.

The observed lithology of the Pleistocene Sand and Gravel is consistent with regional descriptions. Although relatively thin in the Site area (less than 10 feet) it is composed of predominantly medium-grained sand and is expected to have a much higher hydraulic conductivity than any of the other units encountered on Site.

4.3 Soil Sampling Results

Golder collected soil samples to confirm the results of the MIP/LIF results and to characterize soil conditions across the Site. Golder compared the detected concentrations to Iowa Department of Natural Resources (IDNR)'s Statewide Soil Standards and Environmental Protection Agency (EPA)'s Regional Screening Level (RSL).

4.3.1 March 2011 Soil Assessment Results

In March 2011, Golder collected 50 soil samples from 15 boring locations for analysis of one or more of the following parameters: VOC, TEH, TPH, RCRA-8 metals, and PCBs. The soil analytical results are provided in Table 1. Key findings from the March 2011 soil assessment included the following:

- No TEH, VOCs, or TPH gasoline constituents were detected in soil samples collected from the soil borings advanced along the southern manufacturing boundary of the Site (MW-10, MW-11, MW-12, MW-13, and MW-14) at concentrations above the laboratory reporting limits.
- Mercury was detected at concentrations just above the laboratory reporting limits in soil samples collected from MW-16, MW-20, MW-21, MW-21A, MW-22, and MW-23. Arsenic, barium, chromium, and lead were detected at concentrations above the laboratory reporting limits at concentrations consistent with background concentrations (i.e., well below the standards).
- TPH as gasoline was detected in soil samples collected from soil borings MW-19, MW-21, MW-21A, and MW-22 at concentrations above the laboratory reporting limits. The highest TPH gasoline concentrations were detected in samples collected from the five to ten foot depth interval. The TPH gasoline concentrations decreased with depth and were non-detect in samples collected below 10 ft bgs with the exception of MW-21 (15.3 mg/kg) at 10-12 ft bgs.
- Oil and grease were detected at concentrations above the laboratory reporting limits in most of the soil samples and detected at the highest concentrations (i.e., above 1,000 mg/kg) in soil samples collected from borings MW-17, MW-21, MW-21A, and MW-23.
- TEH was detected at concentrations above 1,000 mg/kg in soil samples collected from borings MW-17, MW-21, MW-21A, and MW-22. The TEH concentrations decreased with depth to below laboratory reporting limits or one to two orders of magnitude lower than the concentrations reported for the preceding interval.
- Certain CVOCs including TCE and 1,1,1-trichloroethane (TCA) were detected in all the soil borings located adjacent to the south side of the Site building. The highest detected concentrations of TCE and 1,1,1-TCA were located on the southeastern corner of the manufacturing building (i.e., MW-15, MW-16, MW-17, MW-18, and MW-19).
- PCBs were not detected in any of the analyzed soil samples at concentrations above the laboratory reporting limits.

4.3.2 April and May 2012 Confirmation Soil Sampling Results

In April and May 2012, Golder collected 44 soil samples from 17 soil borings to confirm the MIP and LIF results. The laboratory analyzed the soil samples for one or more of the following parameters: VOCs, TEH, oil and grease, metals, SVOCs, PCBs, and for waste characterization. A summary of detected parameters in soil is provided in Table 1 and the laboratory analytical reports are provided in Appendix E. The following summarizes key findings from the April and May 2012 soil assessment by compound class.

4.3.2.1 Total Extractable Hydrocarbons and Oil and Grease

Golder collected 32 TEH and oil and grease samples to assess the horizontal and vertical extent of petroleum impacts observed during the MIP and LIF investigations. Findings include:

- TEH and oil and grease concentrations decrease with depth to concentrations at or near the laboratory reporting limits at an approximate depth of 12 ft bgs at all soil boring locations.
- Soil boring SB-16 was advanced near monitoring well MW-21/MIP-5/LIF-17. The MIP and LIF investigations indicated that NAPL was present to a depth of approximately 12 ft bgs. Golder collected three soil samples at depths ranging from 12 to 26 ft bgs from below the area with the known NAPL impacts. The reported TEH and oil and grease concentrations in the three soil samples collected from SB-16 were at or below the laboratory reporting limits. The analytical data indicates that petroleum impacts do not extend below 12 ft bgs.
- Golder collected five soil samples from SB-13 ranging from just below the concrete slab to 28 ft bgs. SB-13 is located near the northern end of the former concrete and steel-lined trench located on eastern side of Building 1 where petroleum impacts were detected during the MIP and LIF investigations. TEH concentrations of the three samples collected within the NAPL interval (i.e., 0 to 15 ft bgs) ranged from 453 mg/kg to 20,300 mg/kg. Oil and grease concentrations were similar to the TEH concentrations with the highest concentrations from the soil sample collected from 4 to 6 ft bgs. The TEH and oil and grease concentrations decreased with depth and were at or near the laboratory reporting limits in the two deeper soil sampling intervals.
- Golder collected two soil samples from SB-12, which is located in the landscaped area on the eastern side property near Building 2. The MIP and LIF investigations detected NAPL at this location to a depth of 11 ft bgs. The highest TEH and oil and grease concentrations were detected in the 4 to 6 ft bgs interval. The soil samples collected from 10 to 12 ft bgs had only slightly elevated TEH and oil and grease concentrations indicating that the NAPL does not extend beyond 12 ft bgs at this location.
- Golder collected three soil samples from soil boring SB-04, which is located adjacent to former concrete and/or steel-lined pits and trenches in the southwestern corner of the former manufacturing building. NAPL near this location extends to a depth of approximately 19 ft bgs based on the LIF investigation. The highest %RE response (i.e., above 10 %RE) is located in soils above 11 ft bgs. Soil sample collected from 6 to 8 ft bgs had a TEH and oil and grease concentration of 9,830 mg/kg and 8,600 mg/kg, respectively. The intermediate soil sample interval collected from 10 to 12 ft bgs, or near the base of the highest LIF response, had a TEH and oil and grease concentration of 949 mg/kg and 1,300 mg/kg, respectively. The deepest interval, collected from below the NAPL, had TEH and oil and grease concentrations near the laboratory reporting limits. These data indicate that petroleum concentrations decrease with depth and do not extend below 12 ft bgs.
- Soil boring SB-03 was advanced near monitoring well MW-27, MIP-30, and LIF-15 to assess petroleum impacts in this area. The LIF investigation indicated that NAPL was present from approximately 1 to 9 ft bgs. Golder collected four soil samples ranging from 2 to 24 ft bgs. TEH and oil and grease concentrations from the two soil samples collected from within the NAPL interval ranged from 103 mg/kg to 3,810 mg/kg and 150 mg/kg to 8,700 mg/kg, respectively. The two deeper soil sample intervals had TEH and oil and grease concentrations at or below the laboratory reporting limits indicating that petroleum impacts do not extend vertically beyond approximately 12 ft bgs.

4.3.2.2 Volatile and Semi-Volatile Organic Compounds

Golder collected 41 VOC and four SVOC soil samples to assess the horizontal and vertical extent of VOC and SVOC impacts (see Table 1). A summary of the VOC and SVOC results include:

- TCE, the primary CVOC detected, was detected at concentrations above the laboratory reporting limits in 7 of the 41 soil samples analyzed for VOCs. The highest CVOC concentrations were detected in soil samples advanced on the eastern side of the former

manufacturing building including SB-02, SB-10, SB-13, SB-14, and SB-15. CVOCs were not detected in soil samples advanced on the western side of the former manufacturing building. These data are consistent with the results of the MIP survey.

- Soil Boring SB-01, located in Building 2, was advanced near MIP-15, which had elevated MIP responses from the base of the concrete slab to the end of the boring at 33 ft bgs. Golder collected four soil samples to profile the VOC concentrations with depth. The highest TCE concentration was detected in the 15 to 17 ft bgs sample interval. TCE was not detected in the samples collected from the two shallower intervals (2 to 4 ft bgs and 7 to 9 ft bgs) or the deeper interval (31 to 33 ft bgs). Cis-1,2-DCE was detected in the three shallower sample intervals. The presence of cis-1,2-DCE indicates that dechlorination of the TCE is occurring on Site. The laboratory did not detect any VOCs at concentrations above the laboratory reporting limits in the deep soil sample interval or any other VOCs (besides TCE and cis-1,2-DCE) in the shallower sample intervals. These soil data confirm that VOC impacts in soil attenuate before reaching the deeper portion of the unoxidized till.
- Soil Boring SB-02 was advanced on the eastern side of the eastern concrete and steel-lined trench to assess VOC and petroleum-impacted soils and groundwater. Golder collected two soil samples to assess the peak MIP response interval from 14 to 16 ft bgs and from a deeper interval (28 to 30 ft bgs) where the MIP responses were close to background levels. The 14 to 16 ft bgs sample interval had the highest total VOC concentrations of any soil sample, which included a combination of TCE, cis-1,2-DCE, and vinyl chloride. SB-02 (MIP-34) 14-16 was the only soil sample to have a detection of vinyl chloride above the laboratory reporting limit. The presence of cis-1,2-DCE and vinyl chloride indicate that dechlorination of TCE is occurring on Site. The laboratory did not detect any VOCs in the deeper soil sample interval.
- Soil boring SB-03 was advanced in the southwestern corner of the former manufacturing building to assess petroleum impacts and confirm the absence of CVOCs. Golder collected four soil samples from this soil boring. 1,2,4-trimethylbenzene was the only constituent detected in the shallow soil interval (2 to 4 ft bgs) at a concentration above the laboratory reporting limit. The next sample (6 to 8 ft bgs) corresponds with the depth of the highest FID and LIF responses. The 6 to 8 ft bgs sample had an elevated total VOC concentration comprised primarily of 1,2,4-trimethylbenze and 1,3,5-trimethylbezne. Eight other petroleum-related compounds were also detected at concentrations above the laboratory reporting limits. VOCs were not detected in the two deeper sample intervals at concentrations above the laboratory reporting limits and no CVOCs were detected in any of the four soil samples collected from SB-03. The soil samples confirm that CVOCs are not present on the western portion of the Site and that petroleum impacts are confined to depths of less than 16 ft bgs.
- CVOCs were not detected in the soil samples collected from SB-04, SB-05, SB-06, SB-08, SB-16, and SB-17 at concentrations above the laboratory reporting limits. These borings, with the exception of SB-17, are all located on the western side of the former manufacturing building.
- SB-10 (MIP-12) was advanced along the eastern wall of the former manufacturing building to delineate the vertical extent of CVOCs in soil near the concrete and steel-lined trench located on the eastern side of Building 1. The laboratory did not detect any VOCs at a concentration above the laboratory reporting limits in the shallow sample (5 to 7 ft bgs) collected across an interval with an elevated MIP FID peak. Soil sample 16 to 18 ft bgs, collected from an area with elevated MIP XSD response, had a TCE concentration above the RSL. No other VOCs were detected in these samples. The extent of CVOC impact in the area is anticipated to decrease with depth as documented in other borings on Site (e.g., SB-13).
- Soil boring SB-15 was advanced adjacent to MW-19, which had elevated CVOC impacts in soil and groundwater as documented in the 2011 assessment activities (Golder, 2011)

and from the MIP investigation. Golder collected two soil samples from SB-15 including one soil sample (13 to 15 ft bgs) from the interval with the highest MIP XSD response and one soil sample (19 to 21 ft bgs) from an interval with decreasing MIP XSD response (although not at background level). The laboratory detected TCE, TCA, and 1,1-dichloroethene (1,1-DCE) at concentrations above the laboratory reporting limits in the soil sample collected from the 13 to 15 ft bgs interval. 1,1,1-TCA was also detected in the soil sample collected from MW-19 in 2011 and appears to be limited in horizontal extent to the area near MW-19. The deeper soil sample, collected approximately six feet lower than the shallow sample interval, was non-detect for VOCs. Therefore, XSD responses below zones of high XSD response are considered representative of equipment/instrument carry-over and not representative of soil and/or groundwater impacts at depth.

- The only VOCs detected in soil samples SB-12 (4 to 8 ft bgs) and SB-13 (4 to 6 ft bgs) were low levels (near reporting limits) of 1,2,4-trimethylbenzene and sec-butylbenzene (SB-13 only). Both of these soil samples had elevated TEH and oil and grease concentrations. The low number of VOC constituents detected in these samples, the elevated TEH and oil and grease concentrations, and the LIF results indicate that the petroleum is likely a machine or cutting oil and not associated with diesel fuel or gasoline.
- Di-n-octyl phthalate was the only SVOC detected at a concentration above the laboratory reporting limit in the four soil samples analyzed for SVOCs. The lack of SVOCs detected in the soil samples confirms that the diesel fuel, kerosene, and motor oils used as LIF and TEH laboratory standards are not a match for petroleum impacts observed on Site.

4.3.2.3 Polychlorinated Biphenyls

Golder collected four soil samples for PCB analysis. All four soil samples were collected from intervals with NAPL. Consistent with the previous 10 soil samples analyzed for PCBs (Golder, 2011), PCBs were not detected at concentrations above the laboratory reporting limits in any of the 2012 soil samples. Based on these result, Golder concluded that PCBs are not Site-related compounds of concern.

4.3.2.4 Metals

Golder collected 15 soil samples for analysis of metals including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver from areas with elevated petroleum impacts as presented in Table 1. During previous soil sampling activities (Golder, 2011), Golder submitted 50 soil samples for metals analysis and the laboratory detected arsenic, barium, chromium, and lead at concentrations above the laboratory reporting limits but at concentrations consistent with area background concentrations. The 2012 metals soil sampling data are similar to the 2011 results. Based on these results. Golder concluded that although metals were detected at concentrations above the laboratory reporting limits, the reported concentrations are within area background levels and that metals do not represent Site-related compounds of concern.

4.3.3 November 2012 Soil Assessment Results

During the November 2012 assessment, Golder collected soil samples from the yellow-brown till from three soil borings (MW-43D, MW-46, and MW-47D) for VOC analysis and four soil samples for petroleum fingerprint analysis from areas with known NAPL impacts. Analytical results for the yellow-brown till are

summarized in Table 1 and the laboratory analytical reports are provided in Appendix E. The following summarizes key findings of the November 2012 soil assessment.

4.3.3.1 Volatile Organic Compounds

Golder collected six soil samples from the yellow-brown till (two per boring) for VOC analysis from the intervals with the highest PID readings (see boring logs in Appendix D). TCE, the only VOC detected in the yellow-brown till soil samples at concentrations above the laboratory reporting limits, was detected in three of the six soil samples. No VOCs were detected in the two soil samples collected from MW-43D. Comparison of the detected TCE concentrations to IDNR's Statewide Soil Standards and USEPA's RSLs indicated that the TCE detection in MW-46 and one of the two detections in MW-47D are below USEPA's TCE RSL for Industrial Soils of 6,400 ug/kg. The detected concentration of TCE in the deeper soil sample collected from MW-47D is equal to USEPA's TCE RSL for Industrial Soils.

The soil analytical results for samples collected from borings MW-46 and MW-47D indicate that TCE impacts extend into the yellow-brown till in areas of the highest TCE groundwater impact.

4.3.3.2 Petroleum Fingerprint Analysis

Golder submitted four soil samples from areas with known NAPL impacts (LIF-01, LIF-03, LIF-08, and LIF-12) to Alpha Analytical for fingerprint analyses as described in Section 3.4. The analytical data confirms the LIF waveform results that the petroleum observed at the facility is not gasoline or diesel fuel. The composition of the petroleum is consistent with lubricating or machining oils that do not contain the type of lower molecular weight aromatic hydrocarbons (e.g., benzene, toluene, ethylbenzene, polycyclic aromatic hydrocarbons, and C2-alkylbenzenes) that typically pose an environmental or human health risk. These results are similar to the soil analytical results from the April 2012 assessment. Fingerprint analysis of NAPL-impacted soils indicates that the oils have undergone significant weathering and degradation.

4.4 Groundwater Sampling Results

Groundwater analytical results are summarized in Tables 5 through 7 and the laboratory analytical reports are provided in Appendix I. Golder used USEPA MCLs and/or IDNR statewide groundwater standards to provide a frame-of-reference for data evaluation.

The most frequently detected compounds above USEPA's MCLs are TCE and its associated degradation product, cis-1,2-DCE. Other compounds detected above USEPA MCLs include PCE, vinyl chloride, 1,1-dichloroethene, trans-1,2-dichloroethene, and TCA. VOCs detected less frequently and/or at lower concentrations include additional breakdown products of TCE and TCA and 1,4-dioxane, a solvent stabilizer.

The distribution of VOCs in groundwater is illustrated in the following figures:

- Figure 9: TCE in the upper tills (i.e., oxidized brown and unoxidized gray tills), respectively
- Figure 10: cis-1,2-DCE in the upper tills
- Figure 11: 1,4-dioxane in the upper tills
- Figure 12: TCE in the yellow-brown till
- Figures 13 and 14: cross-sectional views of TCE
- Figure 15: TEH in the upper tills

Key findings include the following:

- The highest TCE concentrations in groundwater occur in the upper tills in the area around the former concrete steel-lined trench on the eastern portion of former Building 1 and just to the south of this area outside of the former building (see Figure 9). Detected concentrations attenuate rapidly horizontally downgradient of this area and generally reach non-detect levels along the southern facility boundary. TCE has not been detected above the MCL of 5 ug/L in samples from wells screened in the upper tills located along the facility boundary line.
- The horizontal distribution of cis-1,2-DCE impacted groundwater (see Figure 10) is similar to TCE except that it extends further to the west beneath former Building 1. At many sample locations (e.g., MW-25S, MW-28, MW-31, and MW-53) the concentration of cis-1,2-DCE is two or more times greater than the concentration of parent compound, TCE. This indicates that significant natural degradation of TCE is occurring within Site groundwater. The larger areal extent of cis-1,2-DCE suggests that some areas formerly impacted by TCE may have fully degraded to cis-1,2-DCE.
- The laboratory detected 1,4-dioxane in three (MW-25S, MW-28, and MW-53) of the 18 groundwater samples collected during the October 2013 sampling event. Detected concentrations ranged from 144 ug/L to 618 ug/L (see Figure 11). Laboratory reporting limits for 1,4-dioxane varied by sample depending on the concentration of other compounds (e.g., elevated TCE concentrations resulted in higher 1,4-dioxane reporting limits). EPA does not have an MCL for 1,4-dioxane. However, IDNR has 1,4-dioxane Statewide Standards for a Protected and Non-Protected Groundwater Source of 200 ug/L and 1,000 ug/L, respectively. The till units at the Site meet IDNR's definition of a Non-Protected Groundwater Source. All detected 1,4-dioxane concentrations and reporting limits for non-detect samples are below the Non-protected Groundwater Source Standard.
- TCE extends into the yellow-brown till beneath the area of highest TCE impact (see Figures 12 and 13). The downgradient extent of TCE impacts in the yellow-brown till extends to MW-64 and MW-66, a well pair screened in the yellow-brown till located south of the facility, but still on the Electrolux property. TCE in the groundwater samples collected from MW-64 decreased from 196 ug/l in October 2013 to non-detect in July and October 2014 (see Table 5). TCE concentrations in samples collected from MW-66 (screened below MW-64 in the yellow-brown till) ranged from 3.94 ug/l to 6.38 ug/l in November 2015 and July 2016, respectively. These data indicate that VOC concentrations attenuate downgradient and do not extend beyond the Electrolux property line located approximately 250 feet further downgradient of MW-64/MW-66 (see Figure 12).
- Except for one detection of TCE (1.1 ug/L) in a sample collected from MW-62, no Site-related VOCs have been detected at concentrations above the laboratory reporting limits in groundwater samples collected from monitoring wells MW-62 and MW-63 screened in the dark gray till.

- TCE concentrations in samples collected from monitoring well MW-65 (screened in the dark gray till) increased from non-detect in October 2013 to 2,370 ug/l in March, 2015. TCE was detected at a concentration of 2,420 ug/L in July 2016, indicating that TCE concentrations in MW-65 have appeared stabilized. Golder concluded that the initial MW-65 groundwater samples were likely influenced by drilling water used during installation of the well in 2013 and are not representative of groundwater conditions in the grey till or well installation. Golder considers the most recent sampling results (March 2015 and July 2016) to be representative of groundwater conditions in the grey till at this location and depth. Detected concentrations of other VOCs (i.e., cis-1,2-DCE and vinyl chloride) in all samples collected from MW-65 are below their respective MCLs. The stabilized concentration of TCE in MW-65 is an order of magnitude lower than samples collected from MW-47D (screened in the overlying yellow-brown till unit), indicating significant attenuation of VOCs with depth in the gray till beneath the source area (see Figures 13 and 14).
- No Site-related VOCs have been detected at concentrations above the laboratory reporting limit in groundwater samples collected from monitoring well MW-67 screened in the Pleistocene Sand and Gravel unit. Groundwater impacts from the Site do not extend to the Pleistocene Sand and Gravel Unit.
- The horizontal distribution of TEH includes three distinct areas of petroleum impacts as shown in Figure 15. This is consistent with LIF survey (see Figure 6). Based on the LIF survey and EPH/VPH analytical data (see Table 6), the petroleum is associated with a cutting or machining oils.

As indicated above, the presence of cis-1,2-DCE and other TCE degradation products (e.g., vinyl chloride) in groundwater suggests that natural attenuation of VOCs is occurring. From October 2013 to March 2015, Golder submitted groundwater samples for an expanded list of parameters to further confirm that natural degradation of CVOCs is occurring and to identify the conditions and processes responsible for the degradation (see Table 7).

Natural attenuation (commonly used interchangeably with “biodegradation” and the remediating effects of microbes) can generally be defined as the reduction of mass, toxicity, mobility, volume, flux or concentration of contaminants in soil or groundwater without human intervention, occurring by means of a number of physical, chemical and/or biological processes. The dominant attenuating process depends on the particular site conditions and on the interaction of the major contaminants with other co-existent constituents. The biodegradation of chlorinated solvents (such as PCE, TCE and cis-1,2-DCE present on Site) can occur in three ways:

- *The chlorinated hydrocarbon acts as electron acceptor:* In this process, known as reductive dechlorination, chlorine atoms are replaced sequentially with hydrogen atoms so that, for example, PCE degrades to TCE, which degrades further to cis-DCE. Reductive dechlorination is the most important process for the natural biodegradation of the highly chlorinated solvents (Wiedemeier et al., 1999), and occurs under reducing conditions.
- *The chlorinated hydrocarbon acts as electron donor:* Under aerobic and occasionally under ferric iron-reducing conditions, this is the primary mechanism for the biodegradation of the less chlorinated hydrocarbons. The oxidation of 1,2-dichloroethane (1,2-DCA) and VC are examples of less chlorinated solvents acting as electron donors under anaerobic conditions (Wiedemeier et al., 1999).

- *The chlorinated hydrocarbon is degraded fortuitously by an enzyme or co-factor produced during the microbial metabolism of another compound (co-metabolism):* The co-metabolic process is described as slow and incomplete (Gossett & Zinder, 1997), and very limited under natural conditions (Wiedemeier et al., 1999). However, VC has been noted as readily and very efficiently co-metabolized by methane, phenol or toluene oxidizers (McCarty, 1997).

Listed below are the geochemical parameters analyzed during this period and their significance in the natural attenuation evaluation:

- Dissolved oxygen (DO): must be broadly depleted (<0.5 mg/L) to permit reductive dechlorination, which requires anaerobic conditions.
- Oxidation/reduction potential (redox/ORP or Eh): indicates the possibility of reductive pathways and helps identify the terminal electron accepting processes (TEAP). For the biologically mediated transformations that represent the natural attenuation process, the following electron acceptor reactions illustrate the use of the terminal electron acceptor (e.g., oxygen, iron, sulfate) and production of various compounds involved in natural attenuation. For the electron acceptor reaction, the preferred oxidation-reduction potential (eH) is provided below:

  $1/4\ O_2 + H^+ + e^- = 1/2\ H_2O$ (aerobic) (Eh = +820 mV)

  $1/5\ NO_3^- + 6/5\ H^+ + e^- = 1/10\ N_2 + 3/5\ H_2O$ (anoxic) (Eh = +740 mV)

  $1/2\ FeOOH_{(s)} + 1/2\ HCO_3^- + H^+ + ½\ e^- = 1/2\ FeCO_3 + H_2O$ (anaerobic) (Eh = -50 mV)

  $1/8\ SO4^{-2} + 19/16\ H^+ + e^- = 1/16\ H_2S + 1/16\ HS^- + 1/2\ H_2O$ (anaerobic) (Eh = -220 mV)

  $1/8\ CO_2 + H^+ + e^- = 1/8\ CH_4 + 1/24\ H_2O$ (anaerobic) (Eh = -240 mV)
- Dissolved gases (methane, ethane, and ethene): methane is the ultimate daughter byproduct of reductive dechlorination; ethene is the ultimate daughter product of VC following a reductive dechlorination pathway; and ethane is the ultimate daughter product of 1,2-DCA/chloroethane following a reductive pathway.
- Nitrate/Nitrite: TEAP effected by nitrate-reducing bacteria
- Sulfate/Sulfite: TEAP effected by sulfate-reducing bacteria
- Ferric Iron/Ferrous Iron : TEAP effected by iron-reducing bacteria
- Manganese: TEAP effected by manganese-reducing bacteria
- Total organic carbon (TOC): a source of carbon and energy for intrinsic bioremediation

The relative abundance/concentration of each parameter can be compared to literature to further assess what processes are occurring. Table 8 provides a summary of key CVOC concentrations, dissolved gas concentrations, ORP, and DO concentrations in samples collected from upgradient, near source, and downgradient monitoring wells. Key findings from these data include the following:

- Sampling results indicate that DO concentrations in the areas most impacted with TCE in the upper till units are generally below 1 mg/l. DO concentrations in the yellow-brown till are also low, ranging from 0.0 mg/l to 0.58 mg/l. The low dissolved oxygen concentrations in the upper tills and yellow-brown till are conducive to anaerobic biological degradation of the more highly-chlorinated VOCs.
- Low ORP values (i.e., less than 100 mv) indicate that reducing (anaerobic) conditions, conducive to biologically-mediated reductive chlorination exist in groundwater over most of

the facility. In the most impacted areas, ORP values are typically negative, indicating strongly-reducing conditions.

- The laboratory detected dissolved gases (methane, ethane, and ethene) at concentrations above the laboratory reporting limits in all 18 groundwater samples collected in October 2013. The following summarizes the dissolved gases analytical results:
  - Methane concentrations ranged from 0. 3 ug/L (MW-24) to 2,900 ug/L (MW-25S). The highest concentrations of methane were detected in the groundwater samples collected from the upper till (oxidized brown and unoxidized gray) and yellow-brown till in the area of the former eastern steel-lined trench (MW-25S, MW-28, MW-31, MW-46, and MW-47D). The high concentrations of methane indicate a high level of biological reduction activity.
  - Ethene concentrations ranged from 0.026ug/L (MW-53) to 1,600 ug/L (MW-28). The highest concentrations of ethene were detected in the groundwater samples collected from the upper till (oxidized brown and unoxidized gray) and yellow-brown till in the former eastern steel-lined trench area (MW-19, MW-25S, MW-28, and MW-47D. The presence of ethene in groundwater indicates that the chlorinated ethenes (e.g., TCE, 1,2-DCE, vinyl chloride) are completely degrading to non-toxic byproducts.
  - Ethane concentrations ranged from 0.025 ug/L (MW-57) to 4 ug/L (MW-19). The presence of ethane in groundwater indicates that the chlorinated ethanes (e.g., 1,1,1-TCA, chloroethane, and 1,1-dichloroethane) are completely degrading to non-toxic byproducts.
- Nitrate (NO_3^-) and Nitrite (NO_2^-) concentrations were mostly non-detect (<0.1 milligrams per liter (mg/L)). Sulfate concentrations ranged <5 mg/L to 160 mg/L with most results in the 20 mg/l to 80 mg/l range. Iron concentrations were typically less than 1.0 mg/L in the groundwater monitoring wells screened in the upper till and yellow-brown till and near 20 mg/l in the groundwater samples collected from wells screened in the dark gray till. Manganese concentrations were typically less than 1 mg/L with a high of 1.84 mg/L.
- TOC concentrations ranged from 2 to 518 mg/L with most results in the 2 mg/l to 7 mg/l range. These concentrations are moderate to high indicating that sufficient substrate exists to support microbial activity. Additionally, petroleum-impacted soil and groundwater is present near the eastern steel-lined trench, which may provide a nutrient source for microbes to degrade VOCs in the most impacted area.

In summary, the analytical results for DO, ORP, and dissolved gases confirm that significant natural attenuation is occurring. TOC concentrations indicate that sufficient substrate exists to support microbial activity. Petroleum-impacted groundwater also increases TOC and may also support the natural degradation of CVOCs in groundwater by providing a nutrient source for the microbes. The available nitrate/nitrite, sulfate, iron, and manganese analytical results do not identify the specific TEAP supporting the natural attenuation. However, most ORP values range from 50 mV to -212 mV suggesting an iron to sulfate TEAP range.

4.5 Quality Assurance/Quality Control

A discussion of the project Quality Assurance/Quality Control is provided in Appendix K.

5.0 CONCEPTUAL SITE MODEL

Golder developed the Conceptual Site Model using assessment findings from 2011 through 2016, literature review, and information from IDNR databases. Key findings and conclusions include the following:

5.1 Geology/Hydrogeology

Golder has identified five till units and the Pleistocene Sand and Gravel Unit based on lithologic observations and grain size analysis. These units (shallow to deep) include the following:

- Oxidized brown till: from ground surface to approximately 13 to 17 ft. bgs - an oxidized, soft to stiff, mottled, brown to yellowish brown (10 YR 5/4) Silty Clay and fine to coarse Sand (CL).
- Unoxidized gray till: from the base of the oxidized brown till to approximately 29 to 33 ft. bgs - an unoxidized, firm to stiff, gray to dark gray (N4), Silty Clay and fine to coarse Sand, with trace fine to coarse gravel (CL). The unoxidized gray till is generally more plastic, has a greater clay content and has less coarse-grained material than the overlying oxidized brown till. Assessment results indicate that the grain size contrast between the oxidized brown till and unoxidized gray till reduces the potential for vertical migration of identified VOC and petroleum hydrocarbon constituents.
- Yellow-brown till: from approximately 29 to 33 ft. bgs to 42 to 49 ft. bgs – a loose to firm yellow-brown (10yr 6/2) fine to coarse Sand to Silt, trace fine to coarse gravel, moist to wet (SM to ML), hereafter referred to as “yellow-brown till”. The grain size of the yellow-brown till varies vertically across the facility. Golder observed a dry, hard, pale yellowish brown (10yr 6/2), sandy (fine to coarse) Silty Clay, trace fine to coarse gravel (CL) layer near MW-47D underlying the unoxidized gray till. This silty clay layer was not observed in other areas of the Site. The yellow-brown till grain size also varies horizontally across the Site.
- Dark gray till: from approximately 42 to 49 ft. bgs to approximately 89 ft. bgs – a dense olive brown to gray to dark gray to black Silty Clay (CL) to Silt/Clayey Silt (ML), moist to dry. The dark gray till appears to be dry and was more dense (i.e., typically very stiff to hard) than the overlying yellow-brown till.
- Pleistocene Sand and Gravel Unit: from approximately 89 to 97 ft bgs – a loose, wet, light brown fine to coarse sand with trace gravel (SP/SW) was observed in soil boring MW-67. This unit predominately consists of a medium sand with lesser amounts of fine and coarse sand and trace gravel that coarsened with depth. Fine sand lenses were present at 90 ft bgs and gravel was present at the base of the unit at 97 ft bgs.
- Lower dark gray till: Below the Pleistocene Sand and Gravel, from 97 ft bgs to 105 ft bgs (end of boring), very stiff silty clay with some sand.

The Site geology matches the information provide in the IDNR databases and literature review. All of the units, except the coarse-grained yellow-brown till and the Pleistocene Sand and Gravel Unit are best characterized as aquitards. The rate and volume of groundwater flow in the aquitards is low based on hydraulic conductivity values calculated for these units. Vertical hydraulic conductivity in these tills are usually lower than horizontal hydraulic conductivity values. Based on the low well yields, the till units are not suitable as a groundwater resource.

Groundwater flow direction across the Site in the yellow-brown till is towards the south/southeast. Groundwater flow direction in the upper tills is difficult to determine due to the low permeability and

heterogeneous nature of the till units. Hydraulic conductivity in the yellow-brown till coarse-grained materials is typically one to two orders of magnitude higher than the surrounding unoxidized and dark gray tills.

The IDNR GeoSam database indicates that the City of Jefferson uses the Pleistocene Sand and Gravel Unit for potable water. Boring logs indicate that the Pleistocene Sand and Gravel Unit is not present west of the Site. Consequently, the only wells installed west of the Site are three geothermal wells and one petroleum test boring. Golder did not observe any private wells within 0.3 miles of the Site during the well inventory study, which confirms the GeoSam database findings.

The capture zones of the two City of Jefferson municipal well fields screened within the Pleistocene Sand and Gravel Unit as delineated in the Jefferson Groundwater Investigation (IDNR, 2013) do not extend to the Site. The IDNR study indicates that the Site is located just beyond the 10-year capture zone (i.e., near the southwest corner of the Site) for the well field located within the city limits of Jefferson (i.e., approximately 4,200 southwest of the Site). The capture zone of a second Jefferson well field, located approximately 5,700 feet northwest of the Site, did not extend towards the Site.

5.2 Soil Conditions

Golder delineated soil impacts using MIP and/or LIF as screening tools and collecting confirmation soil samples. Shallow soils are primarily impacted by petroleum constituents, which were encountered below the base of the concrete slab floor or approximately two to three ft bgs in landscaped areas. The risk posed by the petroleum-impacted soil is low as analysis of the samples indicates the absence of typical risk-driving VOCs (e.g., benzene, ethylbenzene, toluene, xylene, etc.) and SVOCs (e.g., benzo-a-pyrene, benzo-a-anthracene, anthracene). Fingerprint analysis of NAPL-impacted soils indicates that the oils have undergone significant weathering and degradation.

Golder identified CVOC-impacted soils at depths ranging from approximately one to three feet below the base of the concrete floor slab to approximately five to seven ft bgs in the landscaped areas. In one of the most highly CVOC-impacted groundwater areas near monitoring wells MW-19, CVOCs were detected in MIP-3 at approximately six ft bgs. Based on the depth of the impacted soils, presence of the concrete slab floor, secure perimeter fence, the potential for direct exposure to impacted soils is limited.

Golder did not detect PCBs or metals at concentrations above the laboratory reporting limits and/or soil standards. Therefore, these constituents are no longer a concern on Site.

5.3 Groundwater Conditions

A summary of the groundwater conditions at the Site includes the following:

- TEH-impacted groundwater is present in NAPL areas, but attenuates rapidly both horizontally and vertically. Petroleum-impacted soil may provide a benefit to CVOC degradation by providing a nutrient source for the microbes.
- Groundwater within the oxidized brown and unoxidized gray till aquitard is impacted by CVOCs, primarily TCE and its breakdown products in the area of the former concrete steel-lined trench located on the eastern portion of former Building 1.
- The vertical extent of CVOC impact in groundwater is limited to approximately 30 ft. bgs except in the area of the former concrete steel-lined trench located on the eastern portion of former Building 1 and downgradient (i.e., southeast) of the former concrete steel-lined trench. Groundwater samples collected from six monitoring wells installed within the yellow-brown till and one monitoring well in the dark grey till indicate presence of CVOCs, primarily TCE. An approximately 100-foot wide area of VOC-impacted groundwater is present from the area near the eastern concrete steel-lined trench and extends to the south/southeast towards MW-64 and MW-66. An analysis of TCE concentration trends (i.e., TCE concentrations <6 ug/l) indicates that TCE-impacted groundwater does not extend off Electrolux-owned property.
- Groundwater samples collected from the MW-62 and MW-63 screened within the dark gray till indicate that VOCs have not migrated vertically into this unit outside of the area near the eastern concrete steel-lined trench.
- Groundwater samples collected from MW-67 screened in the Pleistocene Sand and Gravel unit, indicate that Site impacts have not migrated to this unit.
- Previous groundwater sampling results indicated that 1,1,1-TCA was present in Site groundwater. Therefore, EPA requested that Electrolux screen groundwater for 1,4-dioxane; a solvent used as a stabilizer during the manufacture of 1,1,1-TCA. 1,4-dioxane was detected in a limited number of groundwater samples collected from wells screened in the upper till unit (oxidized brown and unoxidized gray). 1,4-dioxane has not migrated horizontally off of the facility or vertically to the yellow-brown till. There is no MCL for 1,4-dioxane. All detected 1,4-dioxane concentrations are below the Iowa Non-protected Groundwater Source Standard.
- Evidence of reductive dechlorination occurring on Site includes the following:
  - CVOC impacts, primarily TCE and its breakdown products including cis-1,2-DCE and vinyl chloride are present in the upper tills, and to a lesser extent the yellow-brown till. The concentration of daughter products is significantly higher than TCE in multiple well locations (e.g., MW-25S, MW-28, MW-31, MW-47S, MW-47D, and MW-53) indicating the reductive dechlorination of TCE is occurring.
  - Dissolved oxygen concentrations in the areas most highly-impacted with TCE in the upper till units are typically below 1 mg/l. Overall, the DO concentrations suggest that anaerobic conditions exist within the CVOC-impacted groundwater area.
  - Low ORP values (i.e., less than 100 mv) indicate that anaerobic conditions, conducive to biologically-mediated reductive dechlorination exist in groundwater over most of the facility. In the most-highly impacted areas, ORP values are typically less than zero, indicating strongly-reducing conditions.
  - The laboratory detected dissolved gases (ethene, ethane, and methane) at concentrations above the laboratory reporting limits in all 18 groundwater samples collected from the Site in October 2013. The detection of elevated concentrations of these gases within and downgradient of the most highly-impacted groundwater area supports evidence that TCE and other CVOCs are fully degrading to ethene, ethane, and methane.

CVOC impacts, primarily TCE and its breakdown products including cis-1,2-DCE and vinyl chloride are present in the upper tills, and to a lesser extent the yellow-brown till. MIP profiling indicates that the highest CVOC concentrations occur at the interface between the oxidized brown and unoxidized gray till, which is coincident with, and consistent with, a contrast in hydraulic conductivity between these two units. The unoxidized gray till is characterized by a very low hydraulic conductivity. Migration of CVOCs into the unoxidized gray till and yellow-brown till likely occurs through diffusion, rather than advection (groundwater) flow. Site data indicate that significant anaerobic biological reductive dechlorination is occurring in soils and groundwater which, along with the generally low transmissivity of the till materials, limits the horizontal and vertical extent and potential migration of CVOC impacts.

The recent assessment results confirm the March 2013 results that overall, the petroleum and CVOC-impacted soil and groundwater is confined primarily to the facility (i.e., former developed portion of the Site) boundaries. Golder did not detect any VOCs or petroleum compounds above the MCLs and/or laboratory reporting limits in the groundwater samples collected from the monitoring wells screened within the oxidized brown and unoxidized gray tills along the southern manufacturing boundary of the Site. VOC impacts to the yellow-brown till also attenuate near the southern facility boundary of the Site. Undeveloped fields, owned by Electrolux, are located south and east of the developed portion of the Site. The area of impacted groundwater is confined to the Electrolux-owned property.

The suspected source of the petroleum-impacted soils and groundwater is the historical use of cutting/machining oils associated with metal working operations within the former manufacturing buildings. A specific source of the CVOCs has not been identified. However, CVOCs in soil and groundwater are suspected to be associated with former manufacturing operations located within the eastern portion of former Building 1 and in former Building 2.

Assessment activities conducted at the former Electrolux facility in Jefferson, Iowa have systematically and adequately delineated the nature and extent of impacts to soil and groundwater at the Site. There are no receptors such as public drinking water supply wells, streams or rivers, public use areas, or occupied buildings (i.e., vapor intrusion concerns) near the Site. Most of the impacted soil and groundwater areas are located beneath the concrete slab of the former buildings or concrete-paved driveways. Impacted soils in the landscaped areas are typically encountered below two to three ft bgs. The former manufacturing facility is surrounded by a secure perimeter chain-link fence to deter trespassers. Electrolux has no current plans to develop the Site. Consequently, the potential exposure risks to human health and the environment at this Site are minimal and controlled.

6.0 FRAMEWORK FOR FUTURE SITE MANAGEMENT

Site soil and groundwater impacts have been assessed and confirmed not to extend off Electrolux-owned property. Electrolux intends to maintain control of the property and implement appropriate land use restrictions, if necessary. Although Electrolux has no immediate plans for redevelopment of the Jefferson property, future use of the property would be restricted to industrial use until such time it is determined to be suitable for other potential uses. As a next step toward moving the Site to a resolution of remedial actions, Electrolux asked Golder to prepare a document outlining the proposed plan for future management of Site-related impacts. The proposed plan will be supported by an evaluation of Site-related risks and is envisioned to include the following:

- Development and implementation of a long-term groundwater monitoring program as part of proposed approved MNA remedy
- Development and implementation of a well decommissioning program for wells not included in the long-term monitoring program
- Implementation of appropriate land use restrictions including securing and maintaining areas inside the fenced portion of the Site

7.0 REFERENCES

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TABLES

Table 1: Summary of Analytical Parameters in Soil
Former Electrolux Manufacturing Facility
Jefferson, Iowa

			Volatile Organic Compounds EPA Method 8260B																
Date	Location ID	Sample Depth (ft bgs)	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,2-Dibromoethane
Iowa DNR Statewide Standard for Soil			230,000	150,000,000	15,000	54,000	1,500,000	380,000	NS	NS	100	760,000	3,800,000	2,600	1,500	5,500,000	34,000	53,000	1,500
		Reporting Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Nov-2012	MW-43D	29.5	< 211	< 211	< 211	< 211	< 211	< 211	< 211	< 1060	< 211	< 1060	< 211	< 2110	< 2110	< 211	< 211	< 211	< 211
		41.5	< 233	< 233	< 233	< 233	< 233	< 233	< 233	< 1170	< 233	< 1170	< 233	< 2330	< 2330	< 233	< 233	< 233	< 233
	MW-46	31.5	< 233	< 233	< 233	< 233	< 233	< 233	< 233	< 1160	< 233	< 1160	< 233	< 2330	< 2330	< 233	< 233	< 233	< 233
		41.5	< 259	< 259	< 259	< 259	< 259	< 259	< 259	< 1290	< 259	< 1290	< 259	< 2590	< 2590	< 259	< 259	< 259	< 259
	MW-47D	31.5	< 224	< 224	< 224	< 224	< 224	< 224	< 224	< 1120	< 224	< 1120	< 224	< 2240	< 2240	< 224	< 224	< 224	< 224
		34.5	< 268	< 268	< 268	< 268	< 268	< 268	< 268	< 1340	< 268	< 1340	< 268	< 2680	< 2680	< 268	< 268	< 268	< 268

Date	Location ID	Sample Depth (ft bgs)	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Cymene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	Methyl tert-Butyl Ether	Methylene Chloride	Naphthalene
			44,000	1,500,000	30,000,000	NS	NS	150,000	NS	NS	150,000	760,000	15,000,000	7,600,000	40,000	7,600,000	2,300,000	1,500,000	1,100,000
		Reporting Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Nov-2012	MW-43D	29.5	< 211	< 211	< 846	< 211	< 846	< 211	< 211	< 211	< 211	< 211	< 634	< 211	< 1060	< 211	< 211	< 2110	< 1060
		41.5	< 233	< 233	< 934	< 233	< 934	< 233	< 233	< 233	< 233	< 233	< 700	< 233	< 1170	< 233	< 233	< 2330	< 1170
	MW-46	31.5	< 233	< 233	< 931	< 233	< 931	< 233	< 233	< 233	< 233	< 233	< 698	< 233	< 1160	< 233	< 233	< 2330	< 1160
		41.5	< 259	< 259	< 1030	< 259	< 1030	< 259	< 259	< 259	< 259	< 259	< 776	< 259	< 1290	< 259	< 259	< 2590	< 1290
	MW-47D	31.5	< 224	< 224	< 895	< 224	< 895	< 224	< 224	< 224	< 224	< 224	< 671	< 224	< 1120	< 224	< 224	< 2240	< 1120
		34.5	< 268	< 268	< 1070	< 268	< 1070	< 268	< 268	< 268	< 268	< 268	< 804	< 268	< 1340	< 268	< 268	< 2680	< 1340

Notes:
( ) = dilution factors - no parentheses indicate a laboratory dilution factor of 1
Bold = Compound exceeds MCL
ft bgs = feet below ground surface
MCL = Environmental Protection Agency's Maximum Contaminant Level
mg/kg = milligrams per kilogram
mg/l = milligrams per liter
NA = Not analyzed
TEH= Total Extractable Petroleum Hydrocarbons - TEH is the combination of motor oil, gasoline and diesel range organics.
ug/kg = micrograms per kilogram
NS = No Standard
Iowa Soil standard source: https://programs.iowadnr.gov/riskcalc/pages/standards.aspx

Table 1: Summary of Analytical Parameters in Soil
Former Electrolux Manufacturing Facility
Jefferson, Iowa

			Volatile Organic Compounds EPA Method 8260B														
Date	Location ID	Sample Depth (ft bgs)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	4-Chlorotoluene	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide
		Iowa DNR Statewide Standard for Soil	6,800,000	NS	760,000	NS	46,000,000	1,500,000	1,500,000	68,000,000	56,000	NS	760,000	50,000	390,000	110,000	7,600,000
		Reporting Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Nov-2012	MW-43D	29.5	< 211	< 211	< 211	< 846	< 2110	< 211	< 211	< 2110	< 211	< 211	< 211	< 211	< 423	< 846	< 211
		41.5	< 233	< 233	< 233	< 934	< 2330	< 233	< 233	< 2330	< 233	< 233	< 233	< 233	< 467	< 934	< 233
	MW-46	31.5	< 233	< 233	< 233	< 931	< 2330	< 233	< 233	< 2330	< 233	< 233	< 233	< 233	< 465	< 931	< 233
		41.5	< 259	< 259	< 259	< 1030	< 2590	< 259	< 259	< 2590	< 259	< 259	< 259	< 259	< 517	< 1030	< 259
	MW-47D	31.5	< 224	< 224	< 224	< 895	< 2240	< 224	< 224	< 2240	< 224	< 224	< 224	< 224	< 448	< 895	< 224
		34.5	< 268	< 268	< 268	< 1070	< 2680	< 268	< 268	< 2680	< 268	< 268	< 268	< 268	< 536	< 1070	< 268

Date	Location ID	Sample Depth (ft bgs)	n-Butylbenzene	n-Hexane	n-Propylbenzene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
			3,800,000	4,600,000	7,600,000	NS	15,000,000	NS	1,500,000	6,100,000	1,500,000	NS	67,000	23,000,000	2,100	15,000,000
		Reporting Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Nov-2012	MW-43D	29.5	< 211	< 1060	< 211	< 211	< 211	< 211	< 211	< 211	< 211	< 211	< 211	< 846	< 634	< 634
		41.5	< 233	< 1170	< 233	< 233	< 233	< 233	< 233	< 233	< 233	< 233	< 233	< 934	< 700	< 700
	MW-46	31.5	< 233	< 1160	< 233	< 233	< 233	< 233	< 233	< 233	< 233	< 233	< 233	< 931	< 698	< 698
		41.5	< 259	< 1290	< 259	< 259	< 259	< 259	< 259	< 259	< 259	< 259	1,880	< 1030	< 776	< 776
	MW-47D	31.5	< 224	< 1120	< 224	< 224	< 224	< 224	< 224	< 224	< 224	< 224	1,300	< 895	< 671	< 671
		34.5	< 268	< 1340	< 268	< 268	< 268	< 268	< 268	< 268	< 268	< 268	6,400	< 1070	< 804	< 804

Prepared by: JMR
Checked by: ATK
Reviewed by: APTM

Table 2: Summary of Monitoring Well Construction Details
Former Electrolux Manufacturing Facility
Jefferson, Iowa

		Survey Data [1]						Well Construction									
Well ID	Date of Well Installation	Northing (ft)	Easting (ft)	Ground Surface Elevation (NAVD 88)	TOC Elevation (NAVD 88)	Boring Method	Geologic Unit Screened	Well Material	Well Casing	Top of Sand Pack (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Bottom of Sand Pack (ft bgs)	Top of Sand Pack (NAVD 88)	Top of Screen (NAVD 88)	Bottom of Screen (NAVD 88)	Middle of Screen (NAVD 88)
MW-1	11/20/10	3473727.53	4685877.23	1,052.80	1,052.56	DPT	Oxidized Till	1.5" PVC	Standard	4.0	5.0	10.0	10.0	1,048.80	1,047.80	1,042.80	1,045.30
MW-2	11/20/10	3473471.97	4685903.39	1,050.81	1,050.49	DPT	Oxidized Till	1.5" PVC	Standard	4.0	5.0	10.0	10.0	1,046.81	1,045.81	1,040.81	1,043.31
MW-3	11/20/10	3473712.19	4685345.59	1,050.94	1,050.70	DPT	Oxidized Till	1.5" PVC	Standard	3.0	4.0	9.0	10.0	1,047.94	1,046.94	1,041.94	1,044.44
MW-4	11/20/10	3473471.13	4685362.38	1,049.90	1,049.63	DPT	Oxidized Till	1.5" PVC	Standard	3.0	4.0	9.0	10.0	1,046.90	1,045.90	1,040.90	1,043.40
MW-5	11/20/10	3473144.28	4685429.86	1,051.53	1,051.23	DPT	Oxidized Till	1.5" PVC	Standard	3.0	4.0	9.0	10.0	1,048.53	1,047.53	1,042.53	1,045.03
MW-6	11/20/10	3473155.05	4685603.48	1,049.44	1,049.19	DPT	Oxidized Till	1.5" PVC	Standard	4.0	5.0	10.0	10.0	1,045.44	1,044.44	1,039.44	1,041.94
MW-7	11/20/10	3473151.23	4685908.05	1,049.64	1,049.36	DPT	Oxidized Till	1.5" PVC	Standard	9.0	10.0	15.0	15.0	1,040.64	1,039.64	1,034.64	1,037.14
MW-8[6]	11/21/10	3473628.72	4685640.84	1,049.68	1,049.39	DPT	Oxidized Till	1.5" PVC	Standard	3.0	4.0	9.0	10.0	1,046.68	1,045.68	1,040.68	1,043.18
MW-9[6]	11/21/10	3473181.47	4685490.06	1,049.51	1,049.14	DPT	Oxidized Till	1.5" PVC	Standard	3.0	7.0	12.0	12.0	1,046.51	1,042.51	1,037.51	1,040.01
MW-10	3/29/11	3473208.66	4685430.75	1,049.24	1,049.04	DPT	Oxidized Till	1.5" PVC	Standard	1.5	2.0	12.0	12.0	1,047.74	1,047.24	1,037.24	1,042.24
MW-11[6]	3/29/11	3473158.33	4685534.04	1,049.82	1,049.53	DPT	Oxidized Till	1.5" PVC	Standard	2.5	3.0	13.0	13.5	1,047.32	1,046.82	1,036.82	1,041.82
MW-12	3/29/11	3473148.59	4685712.93	1,048.76	1,048.45	DPT	Oxidized Till	1.5" PVC	Standard	2.5	3.0	13.0	13.0	1,046.26	1,045.76	1,035.76	1,040.76
MW-13	3/29/11	3473150.08	4685780.62	1,048.55	1,048.26	DPT	Oxidized Till	1.5" PVC	Standard	2.5	3.0	13.0	13.0	1,046.05	1,045.55	1,035.55	1,040.55
MW-14	3/29/11	3473151.65	4685836.52	1,048.24	1,048.00	DPT	Oxidized Till	1.5" PVC	Standard	3.0	3.0	13.0	13.0	1,045.24	1,045.24	1,035.24	1,040.24
MW-15	3/29/11	3473346.30	4685811.61	1,050.66	1,050.44	DPT	Oxidized Till	1.5" PVC	Standard	2.5	3.0	13.0	13.0	1,048.16	1,047.66	1,037.66	1,042.66
MW-16	3/30/11	3473313.72	4685811.66	1,050.64	1,050.36	DPT	Oxidized Till	1.5" PVC	Standard	2.5	3.0	13.0	13.0	1,048.14	1,047.64	1,037.64	1,042.64
MW-17	3/30/11	3473291.78	4685808.33	1,050.59	1,050.25	DPT	Oxidized Till	1.5" PVC	Standard	2.5	3.0	13.0	13.0	1,048.09	1,047.59	1,037.59	1,042.59
MW-18	3/30/11	3473227.53	4685850.88	1,049.61	1,049.35	DPT	Oxidized Till	1.5" PVC	Standard	1.5	2.0	12.0	12.0	1,048.11	1,047.61	1,037.61	1,042.61
MW-19	3/30/11	3473290.59	4685723.36	1,050.73	1,050.55	DPT	Oxidized Till	1.5" PVC	Standard	1.5	2.0	12.0	12.0	1,049.23	1,048.73	1,038.73	1,043.73
MW-20[6]	3/30/11	3473246.39	4685691.87	1,050.48	1,050.18	DPT	Oxidized Till	1.5" PVC	Standard	1.5	2.0	12.0	12.0	1,048.98	1,048.48	1,038.48	1,043.48
MW-21	3/30/11	3473266.47	4685590.13	1,050.37	1,050.15	DPT	Oxidized Till	1.5" PVC	Standard	1.5	2.0	12.0	12.0	1,048.87	1,048.37	1,038.37	1,043.37
MW-22	3/30/11	3473266.30	4685566.65	1,050.83	1,050.55	DPT	Oxidized Till	1.5" PVC	Standard	1.5	2.0	12.0	12.0	1,049.33	1,048.83	1,038.83	1,043.83
MW-23	3/30/11	3473265.78	4685542.41	1,050.79	1,050.57	DPT	Oxidized Till	1.5" PVC	Standard	1.5	2.0	12.0	12.0	1,049.29	1,048.79	1,038.79	1,043.79
MW-24	5/2/12	3473483.34	4685720.81	1,050.72	1,050.49	DPT	Oxidized Till	1.5" PVC	Standard	12.0	13.0	18.0	18.0	1,038.72	1,037.72	1,032.72	1,035.22
MW-25S	5/2/12	3473438.13	4685731.44	1,050.78	1,050.55	DPT	Oxidized Till	1.5" PVC	Standard	13.0	14.0	19.0	19.0	1,037.78	1,036.78	1,031.78	1,034.28
MW-25D	5/2/12	3473437.68	4685727.64	1,050.76	1,050.56	DPT	Unoxidized Till	1.5" PVC	Standard	23.0	24.0	29.0	29.0	1,027.76	1,026.76	1,021.76	1,024.26
MW-26S	5/2/12	3473381.54	4685687.58	1,050.78	1,050.57	DPT	Oxidized Till	1.5" PVC	Standard	10.0	11.0	16.0	16.0	1,040.78	1,039.78	1,034.78	1,037.28
MW-26D	5/2/12	3473379.38	4685687.74	1,050.77	1,050.57	DPT	Unoxidized Till	1.5" PVC	Standard	19.0	20.0	25.0	25.0	1,031.77	1,030.77	1,025.77	1,028.27
MW-27	5/3/12	3473322.73	4685551.90	1,050.72	1,050.44	DPT	Unoxidized Till	1.5" PVC	Standard	9.0	10.0	15.0	15.0	1,041.72	1,040.72	1,035.72	1,038.22
MW-28	5/3/12	3473352.03	4685743.00	1,050.80	1,050.58	DPT	Unoxidized Till	1.5" PVC	Standard	12.0	13.0	18.0	18.0	1,038.80	1,037.80	1,032.80	1,035.30
MW-29	5/3/12	3473290.58	4685720.39	1,050.61	1,050.30	DPT	Unoxidized Till	1.5" PVC	Standard	15.0	16.0	21.0	21.0	1,035.61	1,034.61	1,029.61	1,032.11
MW-30[6]	5/3/12	3473267.57	4685592.17	1,050.20	1,050.01	DPT	Unoxidized Till	1.5" PVC	Standard	20.0	21.0	26.0	26.0	1,030.20	1,029.20	1,024.20	1,026.70
MW-31[6]	5/3/12	3473267.48	4685852.29	1,050.52	1,050.53	DPT	Unoxidized Till	1.5" PVC	Standard	12.0	13.0	18.0	18.0	1,038.52	1,037.52	1,032.52	1,035.02
MW-32	11/10/12	3473470.41	4685562.21	1,050.80	1,050.46	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,048.80	1,047.80	1,037.80	1,042.80
MW-33	11/10/12	3473370.18	4685559.08	1,050.77	1,050.52	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,048.77	1,047.77	1,037.77	1,042.77
MW-34	11/13/12	3473462.12	4685627.74	1,050.84	1,050.53	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,048.84	1,047.84	1,037.84	1,042.84
MW-35	11/10/12	3473323.61	4685603.22	1,050.76	1,050.45	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,048.76	1,047.76	1,037.76	1,042.76
MW-36D	11/10/12	3473298.22	4685631.45	1,050.79	1,050.50	DPT	Unoxidized Till	1.5" PVC	Standard	13.5	15.0	20.0	20.0	1,037.29	1,035.79	1,030.79	1,033.29
MW-36S	11/10/12	3473298.34	4685634.17	1,050.77	1,050.46	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,048.77	1,047.77	1,037.77	1,042.77
MW-37	11/13/12	3473321.97	4685497.68	1,050.33	1,050.09	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,048.33	1,047.33	1,037.33	1,042.33
MW-38	11/13/12	3473260.07	4685460.75	1,050.01	1,049.78	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,048.01	1,047.01	1,037.01	1,042.01
MW-39	11/10/12	3473224.81	4685542.24	1,049.82	1,049.59	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,047.82	1,046.82	1,036.82	1,041.82
MW-40	11/14/12	3473151.98	4685516.00	1,050.38	1,050.20	DPT	Unoxidized Till	1.5" PVC	Standard	13.0	15.0	20.0	20.0	1,037.38	1,035.38	1,030.38	1,032.88
MW-41	11/13/12	3473242.68	4685657.91	1,047.09	1,046.90	DPT	Oxidized Till	1.5" PVC	Standard	1.0	2.0	12.0	12.0	1,046.09	1,045.09	1,035.09	1,040.09
MW-42	11/10/12	3473212.97	4685629.19	1,049.47	1,049.14	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,047.47	1,046.47	1,036.47	1,041.47
MW-43D	11/14/12	3473176.37	4685723.58	1,048.93	1,048.52	Roto-Sonic	Yellow-Brown Till	2" PVC	Double	34.0	36.0	41.0	42.0	1,014.93	1,012.93	1,007.93	1,010.43
MW-43I	11/10/12	3473181.87	4685723.40	1,049.04	1,048.70	DPT	Unoxidized Till	1.5" PVC	Standard	21.4	24.5	29.5	29.5	1,027.64	1,024.54	1,019.54	1,022.04
MW-43S	11/10/12	3473184.15	4685723.36	1,049.13	1,048.85	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,047.13	1,046.13	1,036.13	1,041.13
MW-44	11/10/12	3473164.35	4685836.07	1,048.38	1,048.03	DPT	Unoxidized Till	1.5" PVC	Standard	14.8	17.0	22.0	22.0	1,033.58	1,031.38	1,026.38	1,028.88
MW-45	11/13/12	3473286.98	4685718.68	1,050.68	1,050.35	Roto-Sonic	Unoxidized Till	2" PVC	Double	21.5	23.5	28.5	29.5	1,029.18	1,027.18	1,022.18	1,024.68
MW-46	11/13/12	3473280.80	4685718.58	1,050.68	1,050.26	Roto-Sonic	Yellow-Brown Till	2" PVC	MD	34.0	36.0	41.0	42.0	1,016.68	1,014.68	1,009.68	1,012.18
MW-47D	11/14/12	3473365.95	4685731.20	1,050.78	1,050.52	Roto-Sonic	Yellow-Brown Till	2" PVC	MD	35.0	37.0	42.0	43.0	1,015.78	1,013.78	1,008.78	1,011.28

Table 2: Summary of Monitoring Well Construction Details
Former Electrolux Manufacturing Facility
Jefferson, Iowa

		Survey Data [1]						Well Construction									
Well ID	Date of Well Installation	Northing (ft)	Easting (ft)	Ground Surface Elevation (NAVD 88)	TOC Elevation (NAVD 88)	Boring Method	Geologic Unit Screened	Well Material	Well Casing	Top of Sand Pack (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Bottom of Sand Pack (ft bgs)	Top of Sand Pack (NAVD 88)	Top of Screen (NAVD 88)	Bottom of Screen (NAVD 88)	Middle of Screen (NAVD 88)
MW-47S	11/10/12	3473378.14	4685731.50	1,050.83	1,050.53	DPT	Oxidized Till	1.5" PVC	Standard	11.0	13.0	18.0	18.0	1,039.83	1,037.83	1,032.83	1,035.33
MW-48	11/12/12	3473387.28	4685793.87	1,050.26	1,049.99	DPT	Unoxidized Till	1.5" PVC	Standard	13.0	15.0	20.0	20.0	1,037.26	1,035.26	1,030.26	1,032.76
MW-49	11/12/12	3473292.61	4685862.32	1,050.49	1,050.22	DPT	Unoxidized Till	1.5" PVC	Standard	10.0	12.0	17.0	17.0	1,040.49	1,038.49	1,033.49	1,035.99
MW-50	11/13/12	3473292.49	4685890.28	1,048.97	1,048.71	DPT	Oxidized Till	1.5" PVC	Standard	1.0	2.0	12.0	12.0	1,047.97	1,046.97	1,036.97	1,041.97
MW-51	11/12/12	3473267.08	4685937.93	1,047.89	1,047.66	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,045.89	1,044.89	1,034.89	1,039.89
MW-52	11/12/12	3473266.72	4685892.37	1,048.77	1,048.54	DPT	Oxidized Till	1.5" PVC	Standard	1.5	2.0	12.0	12.0	1,047.27	1,046.77	1,036.77	1,041.77
MW-53	11/13/12	3473214.02	4685894.38	1,049.37	1,049.13	DPT	Oxidized Till	1.5" PVC	Standard	1.0	2.0	12.0	12.0	1,048.37	1,047.37	1,037.37	1,042.37
MW-54	11/16/12	3473488.99	4685626.45	1,050.81	1,050.55	DPT	Unoxidized Till	1.5" PVC	Standard	22.0	24.0	29.0	29.0	1,028.81	1,026.81	1,021.81	1,024.31
MW-55D	11/13/12	3473518.94	4685622.68	1,050.59	1,050.61	DPT	Unoxidized Till	1.5" PVC	Standard	22.0	24.0	29.0	29.0	1,028.59	1,026.59	1,021.59	1,024.09
MW-55S	11/13/12	3473519.08	4685625.36	1,050.87	1,050.88	DPT	Oxidized Till	1.5" PVC	Standard	2.0	3.0	13.0	13.0	1,048.87	1,047.87	1,037.87	1,042.87
MW-56D	2/27/13	3473198.60	4685938.54	1,047.76	1,049.77	Roto-Sonic	Yellow-Brown Till	2" PVC	Double	31.0	33.0	38.0	39.0	1,016.76	1,014.76	1,009.76	1,012.26
MW-56S	2/27/13	3473203.94	4685937.19	1,047.82	1,050.39	Roto-Sonic	Oxidized Till	2" PVC	Standard	4.0	5.0	15.0	15.0	1,043.82	1,042.82	1,032.82	1,037.82
MW-57	2/26/13	3473169.91	4685827.39	1,048.59	1,048.01	Roto-Sonic	Yellow-Brown Till	2" PVC	Double	30.5	32.0	37.0	38.0	1,018.09	1,016.59	1,011.59	1,014.09
MW-58	2/26/13	3473158.37	4685672.68	1,049.04	1,048.79	Roto-Sonic	Yellow-Brown Till	2" PVC	Double	32.0	34.0	39.0	40.0	1,017.04	1,015.04	1,010.04	1,012.54
MW-59	2/27/13	3473157.08	4685536.73	1,050.19	1,049.94	Roto-Sonic	Yellow-Brown Till	2" PVC	Double	33.0	35.0	40.0	41.0	1,017.19	1,015.19	1,010.19	1,012.69
MW-60	2/27/13	3473101.18	4685520.00	1,052.84	1,055.41	Roto-Sonic	Unoxidized Till	2" PVC	Standard	13.0	15.0	20.0	20.0	1,039.84	1,037.84	1,032.84	1,035.34
MW-61	2/26/13	3473628.29	4685657.98	1,049.84	1,049.42	Roto-Sonic	Yellow-Brown Till	2" PVC	Double	32.0	34.0	39.0	40.0	1,017.84	1,015.84	1,010.84	1,013.34
MW-62	9/16/13	3473166.18	4685646.18	1,049.15	1,048.85	Roto-Sonic	Dark Gray Till	2" PVC	Double	65.0	67.0	72.0	73.0	984.15	982.15	977.15	979.65
MW-63	9/16/13	3473322.68	4685890.42	1,049.14	1,048.65	Roto-Sonic	Dark Gray Till	2" PVC	Double	64.5	67.0	72.0	73.0	984.64	982.14	977.14	979.64
MW-64	9/19/13	3473101.32	4685852.25	1,051.88	1,054.29	Roto-Sonic	Yellow-Brown Till	2" PVC	Double	30.5	33.0	38.0	40.0	1,021.38	1,018.88	1,013.88	1,016.38
MW-65	9/16/13	3473358.90	4685730.21	1,050.81	1,050.54	Roto-Sonic	Dark Gray Till	2" PVC	Triple	65.0	68.0	73.0	74.0	985.81	982.81	977.81	980.31
MW-66	10/23/15	3473092.22	4685848.08	1,052.24	1,054.49	Roto-Sonic	Yellow-Brown Till	2" PVC	Double	42.5	45.0	55.0	60.0	1,009.74	1,007.24	997.24	1,002.24
MW-67	10/22/15	3472943.53	4685646.72	1,055.08	1,057.31	Roto-Sonic	Pleistocene	2" PVC	Double	85.0	87.0	97.0	105.0	970.08	968.08	958.08	963.08

Notes:
1. JEO Consulting Group, Inc. provided survey data in Iowa State Plane North 1401 coordinates.
2. DPT = Direct Push Technology rig
3. ft bgs = feet below ground surface
4. NAVD 88 = North American Vertical Datum 1988
5. PVC = polyvinyl chloride
6. Original survey data updated with data from 12/12 JEO survey.
7. NA = Not applicable
8. MD = modified double-cased well
9. Pleistocene = Pleistocene Sand and Gravel Unit

Prepared by: TGB
Checked by: JMR
Reviewed by: APTM

Golder Associates

Table 3: Groundwater Elevation Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Environmental Monitoring Point	Total Depth (feet)	Elev. Top of Casing (feet NGVD)	12/3/2010		3/28/2011		4/18/2011		5/21/2012		11/7/2012		12/10/2012		3/26/2013		10/8/2013		4/22/2014	
			DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)
MW-1	9.45	1,052.56	4.86	1,047.70	4.90	1,047.66	4.89	1,047.67	5.03	1,047.53	8.03	1,044.53	8.43	1,044.13	3.14	1,049.42	7.69	1,044.87	-	-
MW-2	9.48	1,050.49	4.77	1,045.72	4.38	1,046.11	4.14	1,046.35	3.96	1,046.53	6.65	1,043.84	7.07	1,043.42	NM(4)	NA	7.94	1,042.55	-	-
MW-3	9.45	1,050.70	2.92	1,047.78	2.13	1,048.57	2.15	1,048.55	2.68	1,048.02	5.45	1,045.25	5.51	1,045.19	4.86	1,045.84	5.60	1,045.10	-	-
MW-4	8.51	1,049.63	3.48	1,046.15	3.10	1,046.53	3.06	1,046.57	3.39	1,046.24	4.43	1,045.20	5.03	1,044.60	3.36	1,046.27	5.31	1,044.32	-	-
MW-5	8.40	1,051.23	7.71	1,043.52	6.29	1,044.94	5.99	1,045.24	6.51	1,044.72	dry	NA	dry	NA	6.14	1,045.09	dry	NA	-	-
MW-6	9.55	1,049.19	6.95	1,042.24	4.90	1,044.29	5.58	1,043.61	5.73	1,043.46	dry	NA	dry	NA	4.41	1,044.78	dry	NA	-	-
MW-7	14.46	1,049.36	5.95	1,043.41	5.84	1,043.52	5.32	1,044.04	5.03	1,044.33	6.07	1,043.29	6.94	1,042.42	4.60	1,044.76	13.30	1,036.06	-	-
MW-8	8.49	1,049.39	1.83	1,047.53	1.14	1,048.22	1.29	1,048.07	2.39	1,046.97	5.44	1,043.95	5.25	1,044.14	2.91	1,046.48	6.65	1,042.74	3.33	1,046.06
MW-9	11.49	1,049.14	8.52	1,040.59	1.61	1,047.50	1.55	1,047.56	5.12	1,043.99	3.82	1,045.32	5.02	1,044.12	NM(4)	NA	NM	NA	-	-
MW-10	11.94	1,049.04	NI	NA	NI	NA	0.2	1,048.84	3.49	1,045.55	1.22	1,047.82	5.67	1,043.37	NM(4)	NA	2.65	1,046.39	-	-
MW-11	12.62	1,049.53	NI	NA	NI	NA	0.5	1,049.11	4.69	1,044.92	11.17	1,038.36	11.63	1,037.90	3.48	1,046.05	dry	NA	-	-
MW-12	12.45	1,048.45	NI	NA	NI	NA	8.25	1,040.20	5.69	1,042.76	6.19	1,042.26	5.55	1,042.90	NM(4)	NA	4.21	1,044.24	-	-
MW-13	12.62	1,048.26	NI	NA	NI	NA	7.26	1,041.00	5.39	1,042.87	6.35	1,041.91	6.95	1,041.31	4.79	1,043.47	7.02	1,041.24	-	-
MW-14	12.61	1,048.00	NI	NA	NI	NA	NM	NA	2.63	1,045.37	<1	NA	2.19	1,045.81	NM(4)	NA	1.11	1,046.89	-	-
MW-15	12.70	1,050.44	NI	NA	NI	NA	5.11	1,045.33	5.42	1,045.02	6.01	1,044.43	7.09	1,043.35	5.50	1,044.94	6.30	1,044.14	5.11	1,045.33
MW-16	12.67	1,050.36	NI	NA	NI	NA	4.85	1,045.51	5.31	1,045.05	5.63	1,044.73	6.86	1,043.50	5.36	1,045.00	5.77	1,044.59	-	-
MW-17	12.41	1,050.25	NI	NA	NI	NA	1.59	1,048.66	5.10	1,045.15	3.54	1,046.71	5.59	1,044.66	2.08	1,048.17	1.89	1,048.36	-	-
MW-18	11.68	1,049.35	NI	NA	NI	NA	1.07	1,048.28	3.47	1,045.88	3.93	1,045.42	5.56	1,043.79	NM(4)	NA	5.30	1,044.05	-	-
MW-19	11.81	1,050.55	NI	NA	NI	NA	4.54	1,046.01	4.89	1,045.66	4.84	1,045.71	6.34	1,044.21	4.30	1,046.25	6.26	1,044.29	2.73	1,047.82
MW-20	11.51	1,050.18	NI	NA	NI	NA	3.88	1,046.28	4.67	1,045.49	4.64	1,045.54	6.12	1,044.06	3.90	1,046.28	6.80	1,043.38	-	-
MW-21	11.64	1,050.15	NI	NA	NI	NA	3.82	1,046.33	3.99 to NAPL 4.99 to water	NA	4.44 to NAPL 4.59 to water	NA	5.68 to NAPL 5.89 to water	NA	3.91	1,046.24	5.07 to NAPL 5.11 to water	NA	-	-
MW-22	11.73	1,050.55	NI	NA	NI	NA	4.33	1,046.22	4.50	1,046.05	4.95	1,045.60	6.13	1,044.42	4.35	1,046.20	NM	NA	-	-
MW-23	11.73	1,050.57	NI	NA	NI	NA	4.43	1,046.14	4.62	1,045.95	5.04	1,045.53	6.23	1,044.34	4.45	1,046.12	5.70	1,044.87	-	-
MW-24	17.62	1,050.49	NI	NA	NI	NA	NI	NA	10.48	1,040.01	8.57	1,041.92	6.44	1,044.05	4.93	1,045.56	6.02	1,044.47	4.84	1,045.65
MW-25S	18.46	1,050.55	NI	NA	NI	NA	NI	NA	9.79	1,040.76	5.79	1,044.76	6.47	1,044.08	5.55	1,045.00	6.09	1,044.46	5.44	1,045.11
MW-25D	28.71	1,050.56	NI	NA	NI	NA	NI	NA	16.83	1,033.73	7.84	1,042.72	8.01	1,042.55	7.66	1,042.90	7.53	1,043.03	7.78	1,042.78
MW-26S	15.62	1,050.57	NI	NA	NI	NA	NI	NA	10.86	1,039.71	6.77	1,043.80	7.43	1,043.14	6.46	1,044.11	6.86	1,043.71	6.45	1,044.12
MW-26D	24.54	1,050.57	NI	NA	NI	NA	NI	NA	13.31	1,037.26	8.03	1,042.54	8.58	1,041.99	7.29	1,043.28	8.03	1,042.54	8.23	1,042.34
MW-27	14.51	1,050.44	NI	NA	NI	NA	NI	NA	7.25	1,043.19	5.26	1,045.18	6.34	1,044.10	5.00	1,045.44	5.67	1,044.77	-	-
MW-28	17.67	1,050.58	NI	NA	NI	NA	NI	NA	8.78	1,041.80	6.01	1,044.57	7.23	1,043.35	6.26	1,044.32	6.57	1,044.01	5.70	1,044.88
MW-29	20.35	1,050.30	NI	NA	NI	NA	NI	NA	11.36	1,038.94	5.46	1,044.84	6.57	1,043.73	2.61	1,047.69	6.96	1,043.34	1.62	1,048.68
MW-30	25.45	1,050.01	NI	NA	NI	NA	NI	NA	17.86	1,032.31	5.47	1,044.54	5.48	1,044.53	6.64	1,043.37	5.26	1,044.75	-	-
MW-31	17.78	1,050.53	NI	NA	NI	NA	NI	NA	13.68	1,036.93	6.61	1,043.92	6.99	1,043.54	7.05	1,043.48	7.16	1,043.37	6.21	1,044.32
MW-32	12.63	1,050.46	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	6.38	1,044.08	1.31	1,049.15	4.66	1,045.80	-	-
MW-33	12.55	1,050.52	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	7.45	1,043.07	5.84	1,044.68	6.42	1,044.10	-	-
MW-34	12.83	1,050.53	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	6.22	1,044.31	3.98	1,046.55	5.44	1,045.09	-	-
MW-35	13.00	1,050.45	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	5.99 to NAPL 6.08 to water	NA	4.46 to NAPL 4.55 to water	NA	5.45 to NAPL 5.56 to water	NA	-	-
MW-36S	12.68	1,050.46	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	5.15	1,045.31	3.92	1,046.54	4.11	1,046.35	-	-
MW-36D	19.74	1,050.50	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	7.00	1,043.50	4.88	1,045.62	4.84	1,045.66	-	-
MW-37	12.57	1,050.09	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	6.69	1,043.40	5.02	1,045.07	6.03	1,044.06	-	-
MW-38	12.59	1,049.78	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	7.42	1,042.36	5.91	1,043.87	7.10	1,042.68	-	-
MW-39	12.74	1,049.59	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	5.81	1,043.78	4.11	1,045.48	6.38	1,043.21	-	-
MW-40	19.98	1,050.20	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	15.71	1,034.49	7.94	1,042.26	15.43	1,034.77	-	-

Table 3: Groundwater Elevation Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Environmental Monitoring Point	Total Depth (feet)	Elev. Top of Casing (feet NGVD)	12/3/2010		3/28/2011		4/18/2011		5/21/2012		11/7/2012		12/10/2012		3/26/2013		10/8/2013		4/22/2014	
			DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)
MW-41	10.91	1,046.90	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	2.10	1,044.80	0.51	1,046.39	1.73	1,045.17	-	-
MW-42	11.45	1,049.14	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	4.69	1,044.45	2.09	1,047.05	4.50	1,044.64	-	-
MW-43S	12.77	1,048.85	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	5.92	1,042.93	2.89	1,045.96	6.17	1,042.68	-	-
MW-43I	29.10	1,048.70	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	9.66	1,039.04	8.57	1,040.13	10.04	1,038.66	-	-
MW-43D	40.75	1,048.52	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	11.20	1,037.32	10.20	1,038.32	11.43	1,037.09	11.29	1,037.23
MW-44	22.52	1,048.03	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	6.66	1,041.37	4.22	1,043.81	5.45	1,042.58	-	-
MW-45	29.50	1,050.35	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	8.76	1,041.59	6.92	1,043.43	8.35	1,042.00	5.70	1,044.65
MW-46	41.17	1,050.26	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	12.68	1,037.58	10.65	1,039.61	11.78	1,038.48	11.45	1,038.81
MW-47S	17.77	1,050.53	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	8.47	1,042.06	6.42	1,044.11	7.34	1,043.19	-	-
MW-47D	42.02	1,050.52	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	11.85	1,038.67	10.73	1,039.79	12.03	1,038.49	11.64	1,038.88
MW-48	19.72	1,049.99	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	11.86	1,038.13	8.48	1,041.51	5.78	1,044.21	-	-
MW-49	17.03	1,050.22	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	10.06	1,040.16	6.10	1,044.12	6.45	1,043.77	-	-
MW-50	11.87	1,048.71	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	5.21	1,043.50	4.01	1,044.70	4.93	1,043.78	-	-
MW-51	13.38	1,047.66	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	4.65	1,043.01	3.13	1,044.53	4.65	1,043.01	-	-
MW-52	12.02	1,048.54	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	5.02	1,043.52	3.42	1,045.12	4.68	1,043.86	-	-
MW-53	11.84	1,049.13	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	6.07	1,043.06	3.97	1,045.16	6.40	1,042.73	3.02	1,046.11
MW-54	28.83	1,050.55	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	18.73	1,031.82	3.65	1,046.90	5.04	1,045.51	-	-
MW-55S	12.82	1,050.88	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	6.23	1,044.65	4.05	1,046.83	6.11	1,044.77	-	-
MW-55D	28.86	1,050.61	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	12.66	1,037.95	6.91	1,043.70	7.75	1,042.86	-	-
MW-56S	17.64	1,050.39	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	6.31	1,044.08	10.88	1,039.51	-	-
MW-56D	39.75	1,049.77	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	12.86	1,036.91	14.19	1,035.58	-	-
MW-57	35.40	1,048.01	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	9.95(7)	1,038.06	10.71	1,037.30	11.01	1,037.00
MW-58	38.30	1,048.79	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	11.15(7)	1,037.64	11.02	1,037.77	-	-
MW-59	39.95	1,049.94	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	13.81	1,036.13	14.15	1,035.79	-	-
MW-60	22.12	1,055.41	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	11.98	1,043.43	14.98	1,040.43	-	-
MW-61	38.38	1,049.42	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	7.64	1,041.78	9.75	1,039.67	8.39	1,041.03
MW-62	71.65	1,048.85	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	44.63	1,004.22	44.28	1,004.57
MW-63	71.89	1,048.65	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	48.72	999.93	48.05	1,000.60
MW-64	40.97	1,054.29	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	18.48	1,035.81	18.34	1,035.95
MW-65	72.89	1,050.54	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	29.33	1,021.21	29.73	1,020.81
MW-66	55.00	1,054.49	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
MW-67	97.00	1,057.31	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA

Notes:

1. NGVD = National Geodetic Vertical Datum of 1929
2. DTW = Depth to water
3. NI = Not installed
4. NM = Not measured - covered with snow and/or water
5. NA = Not applicable
6. NAPL = Non-aqueous phase liquid

5. NA = Not applicable
7. Wells were measured on 3/27/2013

Table 3: Groundwater Elevation Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Environmental Monitoring Point	Total Depth (feet)	Elev. Top of Casing (feet NGVD)	7/14/2014		10/6/2014		12/18/2014		3/24/2015		11/9/2015		7/1/2016	
			DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)
MW-1	9.45	1,052.56	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	9.48	1,050.49	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	9.45	1,050.70	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	8.51	1,049.63	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	8.40	1,051.23	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	9.55	1,049.19	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	14.46	1,049.36	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	8.49	1,049.39	0.93	1,048.46	0.44	1,048.95	-	-	-	-	-	-	-	-
MW-9	11.49	1,049.14	-	-	-	-	-	-	-	-	-	-	-	-
MW-10	11.94	1,049.04	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	12.62	1,049.53	-	-	-	-	-	-	-	-	-	-	-	-
MW-12	12.45	1,048.45	-	-	-	-	-	-	-	-	-	-	-	-
MW-13	12.62	1,048.26	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	12.61	1,048.00	-	-	-	-	-	-	-	-	-	-	-	-
MW-15	12.70	1,050.44	4.86	1,045.58	5.07	1,045.37	-	-	-	-	-	-	-	-
MW-16	12.67	1,050.36	-	-	-	-	-	-	-	-	-	-	-	-
MW-17	12.41	1,050.25	-	-	-	-	-	-	-	-	-	-	-	-
MW-18	11.68	1,049.35	-	-	-	-	-	-	-	-	-	-	-	-
MW-19	11.81	1,050.55	2.30	1,048.25	2.93	1,047.62	-	-	-	-	-	-	-	-
MW-20	11.51	1,050.18	-	-	-	-	-	-	-	-	-	-	-	-
MW-21	11.64	1,050.15	-	-	-	-	-	-	-	-	-	-	-	-
MW-22	11.73	1,050.55	-	-	-	-	-	-	-	-	-	-	-	-
MW-23	11.73	1,050.57	-	-	-	-	-	-	-	-	-	-	-	-
MW-24	17.62	1,050.49	2.50	1,047.99	3.74	1,046.75	-	-	-	-	-	-	-	-
MW-25S	18.46	1,050.55	6.14	1,044.41	3.27	1,047.28	-	-	-	-	-	-	-	-
MW-25D	28.71	1,050.56	4.91	1,045.65	5.42	1,045.14	-	-	-	-	-	-	-	-
MW-26S	15.62	1,050.57	4.81	1,045.76	4.81	1,045.76	-	-	-	-	-	-	-	-
MW-26D	24.54	1,050.57	5.90	1,044.67	5.51	1,045.06	-	-	-	-	-	-	-	-
MW-27	14.51	1,050.44	-	-	-	-	-	-	-	-	-	-	-	-
MW-28	17.67	1,050.58	3.91	1,046.67	4.21	1,046.37	-	-	-	-	-	-	5.63	1044.95
MW-29	20.35	1,050.30	3.11	1,047.19	1.84	1,048.46	-	-	-	-	-	-	-	-
MW-30	25.45	1,050.01	-	-	-	-	-	-	-	-	-	-	-	-
MW-31	17.78	1,050.53	5.50	1,045.03	6.28	1,044.25	-	-	-	-	-	-	-	-
MW-32	12.63	1,050.46	-	-	-	-	-	-	-	-	-	-	-	-
MW-33	12.55	1,050.52	-	-	-	-	-	-	-	-	-	-	-	-
MW-34	12.83	1,050.53	-	-	-	-	-	-	-	-	-	-	-	-
MW-35	13.00	1,050.45	-	-	-	-	-	-	-	-	-	-	-	-
MW-36S	12.68	1,050.46	-	-	-	-	-	-	-	-	-	-	-	-
MW-36D	19.74	1,050.50	-	-	-	-	-	-	-	-	-	-	-	-
MW-37	12.57	1,050.09	-	-	-	-	-	-	-	-	-	-	-	-
MW-38	12.59	1,049.78	-	-	-	-	-	-	-	-	-	-	-	-
MW-39	12.74	1,049.59	-	-	-	-	-	-	-	-	-	-	-	-
MW-40	19.98	1,050.20	-	-	-	-	-	-	-	-	-	-	-	-

Table 3: Groundwater Elevation Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Environmental Monitoring Point	Total Depth (feet)	Elev. Top of Casing (feet NGVD)	7/14/2014		10/6/2014		12/18/2014		3/24/2015		11/9/2015		7/1/2016	
			DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)	DTW (feet)	Elevation (feet NGVD)
MW-41	10.91	1,046.90	-	-	-	-	-	-	-	-	-	-	-	-
MW-42	11.45	1,049.14	-	-	-	-	-	-	-	-	-	-	-	-
MW-43S	12.77	1,048.85	-	-	-	-	-	-	-	-	-	-	-	-
MW-43I	29.10	1,048.70	-	-	-	-	-	-	-	-	-	-	-	-
MW-43D	40.75	1,048.52	7.56	1,040.96	6.98	1,041.54	-	-	-	-	-	-	7.07	1041.45
MW-44	22.52	1,048.03	-	-	-	-	-	-	-	-	-	-	-	-
MW-45	29.50	1,050.35	-	-	-	-	-	-	-	-	-	-	-	-
MW-46	41.17	1,050.26	8.30	1,041.96	7.47	1,042.79	-	-	-	-	-	-	7.56	1042.70
MW-47S	17.77	1,050.53	-	-	-	-	-	-	-	-	-	-	5.09	1045.44
MW-47D	42.02	1,050.52	8.27	1,042.25	7.42	1,043.10	8.50	1,042.02	8.62	1,041.90	-	-	8.32	1,042.20
MW-48	19.72	1,049.99	-	-	-	-	-	-	-	-	-	-	-	-
MW-49	17.03	1,050.22	-	-	-	-	-	-	-	-	-	-	-	-
MW-50	11.87	1,048.71	-	-	-	-	-	-	-	-	-	-	-	-
MW-51	13.38	1,047.66	-	-	-	-	-	-	-	-	-	-	-	-
MW-52	12.02	1,048.54	-	-	-	-	-	-	-	-	-	-	-	-
MW-53	11.84	1,049.13	2.61	1,046.52	3.21	1,045.92	-	-	-	-	-	-	-	-
MW-54	28.83	1,050.55	-	-	-	-	-	-	-	-	-	-	-	-
MW-55S	12.82	1,050.88	-	-	-	-	-	-	-	-	-	-	-	-
MW-55D	28.86	1,050.61	-	-	-	-	-	-	-	-	-	-	-	-
MW-56S	17.64	1,050.39	-	-	-	-	-	-	-	-	-	-	-	-
MW-56D	39.75	1,049.77	-	-	-	-	-	-	-	-	-	-	9.21	1040.56
MW-57	35.40	1,048.01	6.97	1,041.04	6.48	1,041.53	-	-	-	-	6.10	1041.91	5.71	1042.30
MW-58	38.30	1,048.79	-	-	-	-	-	-	-	-	-	-	7.22	1041.57
MW-59	39.95	1,049.94	-	-	-	-	-	-	-	-	-	-	9.41	1040.53
MW-60	22.12	1,055.41	-	-	-	-	-	-	-	-	-	-	10.08	1045.33
MW-61	38.38	1,049.42	4.85	1,044.57	4.19	1,045.23	-	-	-	-	-	-	5.39	1044.03
MW-62	71.65	1,048.85	44.92	1,003.93	44.19	1,004.66	-	-	-	-	42.11	1006.74	40.86	1007.99
MW-63	71.89	1,048.65	49.63	999.02	48.49	1,000.16	-	-	-	-	-	-	45.02	1003.63
MW-64	40.97	1,054.29	13.49	1,040.80	12.64	1,041.65	-	-	-	-	-	-	13.28	1041.01
MW-65	72.89	1,050.54	28.2	1,022.34	27.74	1,022.80	27.42	1,023.12	27.93	1,022.61	-	-	26.49	1,024.05
MW-66	55.00	1,054.49	NI	NA	NI	NA	NI	NA	NI	NA	13.46	1,041.03	14.03	1,040.46
MW-67	97.00	1,057.31	NI	NA	NI	NA	NI	NA	NI	NA	54.95	1,002.36	54.04	1,003.27

Notes:

1. NGVD = National Geodetic Vertical Datum of 1929
2. DTW = Depth to water
3. NI = Not installed
4. NM = Not measured - covered with snow and/or water
5. NA = Not applicable
6. NAPL = Non-aqueous phase liquid

Prepared By: TGB
Checked By: JMR
Reviewed By: APTM

Golder Associates

Table 4: Summary of Slug Test Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Unit	Well	Date	Screened Interval (ft bgs)	Type	Test Duration	Hvorslev Method		Bouwer and Rice Method		Hvorslev/Bouwer and Rice Geometric Mean	
						cm/sec	ft/day	cm/sec	ft/day	cm/sec	ft/day
Oxidized Brown Till	MW-05	5/2/2012	4 to 9	Manual	7 hours	1.00E-05	2.84E-02	6.73E-06	1.91E-02		
	MW-06	5/1/2012	5 to 10	Manual	30 hours	1.80E-07	5.11E-04	1.37E-07	3.89E-04		
	MW-09	5/1/2012	7 to 12	Manual	30 hours	9.03E-08	2.56E-04	8.18E-08	2.32E-04		
	MW-11	4/30/2012	3 to 13	Manual	24 hours	1.17E-07	3.32E-04	8.89E-08	2.52E-04		
	MW-15	4/30/2012	3 to 13	Manual	21 hours	2.12E-06	6.01E-03	1.42E-06	4.03E-03		
	Average - Undisturbed Upper Till:					**2.51E-06**	**7.11E-03**	**1.69E-06**	**4.80E-03**	**2.06E-06**	**5.84E-03**
	MW-22	5/24/2012	2 to 12	Transducer	10 minutes	1.55E-03	4.38E+00	9.86E-04	2.80E+00		
		5/24/2012		Transducer	10 minutes	1.76E-03	4.99E+00	1.13E-03	3.19E+00		
		Average - Disturbed Till MW-22:				**1.65E-03**	**4.69E+00**	**1.06E-03**	**2.99E+00**	**1.32E-03**	**3.75E+00**
	MW-23	5/24/2012	2 to 12	Manual	1 hour	3.07E-04	8.70E-01	9.88E-05	2.80E-01		
		5/24/2012		Transducer	30 minutes	6.64E-04	1.88E+00	4.82E-04	1.37E+00		
		5/24/2012		Transducer	30 minutes	6.35E-04	1.80E+00	4.52E-04	1.28E+00		
		Average - Disturbed Till MW-23:				**5.35E-04**	**1.52E+00**	**3.44E-04**	**9.76E-01**	**4.29E-04**	**1.22E+00**
Unoxidized Gray Till	MW-25D	12/11/2012	24 to 29	Manual	48 hours	3.88E-08	1.10E-04	3.50E-08	9.91E-05		
	MW-30	12/11/2012	21 to 26	Manual	48 hours	2.12E-08	6.00E-05	1.85E-08	5.25E-05		
	Average - Gray Till:					**3.00E-08**	**8.49E-05**	**2.67E-08**	**7.58E-05**	**2.83E-08**	**8.02E-05**
Yellow-Brown Till	MW-43D	12/10/2012	36 to 41	Transducer	24 hours	2.92E-05	8.26E-02	3.01E-05	8.53E-02		
	MW-46	12/11/2012	36 to 41	Transducer	1 hour	1.80E-04	5.09E-01	1.75E-04	4.97E-01		
	MW-57	10/9/2013	32 to 37	Transducer	2.5 hours	5.15E-04	1.46E+00	4.73E-04	1.34E+00		
		10/9/2013	32 to 37	Transducer	2.5 hours	1.86E-04	5.27E-01	1.53E-04	4.33E-01		
	MW-58	10/9/2013	34 to 39	Transducer	3 hours	5.14E-05	1.46E-01	4.68E-05	1.33E-01		
		10/9/2013	34 to 39	Transducer	3 hours	5.77E-05	1.64E-01	5.37E-05	1.52E-01		
	MW-66	11/10/2015	45 to 55	Manual	45 minutes	2.21E-05	6.27E-02	1.67E-05	4.73E-02		
	Average - Yellow Brown Till (coarse grained)					**1.49E-04**	**4.21E-01**	**1.35E-04**	**3.84E-01**	**1.42E-04**	**4.02E-01**
	MW-56D	10/11/2013	33 to 38	Transducer	7 hours	4.18E-06	1.19E-02	3.66E-06	1.04E-02		
		10/11/2013	33 to 38	Transducer	7 hours	7.18E-06	2.04E-02	6.34E-06	1.80E-02		
	MW-61	10/11/2013	34 to 39	Transducer	5 hours	3.86E-06	1.09E-02	4.20E-06	1.19E-02		
	Average - Yellow Brown Till (fine grained)					**5.07E-06**	**1.44E-02**	**4.73E-06**	**1.34E-02**	**4.90E-06**	**1.39E-02**
Dark Gray Till	MW-62 (fine-grained)	10/8/2013	67 to 72	Transducer	20 hours	4.86E-06	1.38E-02	4.69E-06	1.33E-02		
	MW-63 (coarse-grained)	10/8/2013	67 to 72	Transducer	2 hours	8.26E-05	2.34E-01	6.86E-05	1.94E-01		
		10/8/2013	67 to 72	Transducer	2 hours	8.36E-05	2.37E-01	7.24E-05	2.05E-01		
	Average - Dark Gray Till					**5.70E-05**	**1.62E-01**	**4.86E-05**	**1.37E-01**	**5.26E-05**	**1.49E-01**

Notes:
ft/day = feet per day
cm/sec = centimeters per second
ft bgs = feet below ground surface

Prepared by: ATK
Checked by: TGB
Reviewed by: APTM

Golder Associates

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-5	MW-6	MW-7		MW-8			MW-9		MW-10		MW-11		MW-12		MW-13		MW-14	
				Apr 2011	Apr 2011	Apr 2011	Dec 2012	Apr 2014	Jul 2014	Oct 2014	Apr 2011	Dec 2012	May 2012	Dec 2012	Apr 2011	Dec 2012	Apr 2011	Dec 2012	Apr 2011	Dec 2012	May 2012	Dec 2012
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Extractable Petroleum Hydrocarbons (ug/L)																						
Diesel (C12-C22)	-	NS	NS	< 300	< 300	< 300	-	-	-	-	1,390	< 300	< 300	-	359	-	360	< 300	< 300	-	790	< 300
Gasoline	-	NS	NS	< 300	< 300	< 300	-	-	-	-	< 300	< 300	< 300	-	< 300	-	< 300	< 300	< 300	-	< 300	< 300
Motor Oil	-	NS	NS	< 300	< 300	< 300	-	-	-	-	514	1,440	< 300	-	< 300	-	< 300	< 300	< 300	-	478	< 300
Total Extractable Petroleum Hydrocarbon	-	NS	NS	< 300	< 300	< 300	-	-	-	-	1,910	1,440	< 300	-	359	-	360	< 300	< 300	-	1,270	< 300
Volatile Organic Compounds (ug/L)																						
Tetrachloroethene	127-18-4	**5**	**1,700**	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Trichloroethene	79-01-6	**5**	**76**	< 1.00	< 1.00	< 1.00	2.37	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.43	< 1.00
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	2.57	< 1.00	1.49	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Vinyl Chloride	75-01-4	**2**	**10**	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,1-Trichloroethane	71-55-6	**200**	70,000	< 1.00	< 1.00	3.61	2.16	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	79-00-5	**5**	61	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	75-34-3	NS	700	< 1.00	< 1.00	5.22	4.85	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 4.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 4.00	< 1.00
1,1-Dichloroethene	75-35-4	**7**	**180**	< 2.00	< 2.00	< 2.00	< 2.00	<2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00
1,2,4-Trimethylbenzene	95-63-6	NS	350	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	107-06-2	**5**	38	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,3,5-Trimethylbenzene	108-67-8	NS	350	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
2-Butanone	78-93-3	NS	21,000	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Acetone	67-64-1	NS	32,000	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	11.6	< 10.0	< 10.0	< 10.0	< 10.0	26.9	< 10.0
Benzene	71-43-2	**5**	64	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	< 0.500	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide	75-15-0	NS	3,500	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloroethane	75-00-3	NS	14,000	< 4.00	< 4.00	< 4.00	< 4.00	<4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00
Chloroform	67-66-3	**80**	NS	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloromethane	74-87-3	NS	NS	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Cymene	99-87-6	NS	NS	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Ethylbenzene	100-41-4	**700**	3,500	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Isopropylbenzene	98-82-8	NS	3,500	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Naphthalene	91-20-3	NS	700	< 5.00	< 5.00	< 5.00	< 5.00	<5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
n-Butylbenzene	104-51-8	NS	1,800	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
n-Propylbenzene	103-65-1	NS	17,000	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
sec-Butylbenzene	135-98-8	NS	NS	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
tert-Butylbenzene	98-06-6	NS	NS	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	108-88-3	1,000	5,000	< 1.00	< 1.00	< 1.00	1.69	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.05	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Xylenes, Total	1330-20-7	10,000	50,000	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
1,4-Dioxane	123-91-1	NS	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																						
pH	-	NS	NS	7.39	7.15	7.33	7.15	7.51	7.31	6.89	7.16	7.09	10.32	9.38	7.52	6.97	9.2	7.85	7.93	7.72	7.43	8.01
Specific conductance (mS/cm)	-	NS	NS	0.722	0.858	0.795	0.767	0.703	1.159	1.154	0.98	0.983	0.274	0.304	0.571	0.896	0.964	0.749	0.733	0.648	1.092	0.35
Temperature (Degrees Celsius)	-	NS	NS	7.14	6.82	7.98	12.75	9.46	19.15	16.1	6.62	10.38	15.33	11.58	7.15	9.32	7.76	10.58	7.91	11.92	13.41	10.41
ORP (millivolts)	-	NS	NS	NR	NR	NR	NR	142.9	60.9	-173.2	NR	100.5	-65.3	81.2	NR	86.3	NR	77.5	NR	47.9	-86.4	67.6
DO (mg/L)	-	NS	NS	9.86	7.34	3.69	1.54	5.87	0.27	0.16	2.13	1.72	0.61	2.74	6.87	3.31	7.52	4.41	7.35	6.53	0.97	5.01

Notes:
All Results are in micrograms per liter (ug/L).
mS/cm = milliSiemens per centimeter
mg/L = milligrams per liter
MCL = Environmental Protection Agency's Maximum Contaminant Level
Bold = Compound exceeds MCL
Total Extractable Petroleum Hydrocarbons are a sum of the three petroleum ranges: diesel, gasoline, and motor oil.

NS = No standard
NA = Not analyzed
NR = Not recorded
N = normal sample
FD = field duplicate sample

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-15								MW-16			MW-17			MW-18		
				Apr 2011	May 2012	Dec 2012	Oct 2013	Apr 2014	Jul 2014		Oct 2014	Apr 2011	May 2012	Dec 2012	Apr 2011	May 2012	Dec 2012	Apr 2011	May 2012	Dec 2012
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Extractable Petroleum Hydrocarbons (ug/L)																				
Diesel (C12-C22)	-	NS	NS	< 375	< 300	-	-	-	-	-	-	< 300	< 300	-	< 300	< 300	-	< 300	< 300	-
Gasoline	-	NS	NS	< 375	< 300	-	-	-	-	-	-	< 300	< 300	-	< 300	< 300	-	< 300	< 300	-
Motor Oil	-	NS	NS	< 375	< 300	-	-	-	-	-	-	< 300	< 300	-	< 300	< 300	-	< 300	< 300	-
Total Extractable Petroleum Hydrocarbon	-	NS	NS	< 375	< 300	-	-	-	-	-	-	< 300	< 300	-	< 300	< 300	-	< 300	< 300	-
Volatile Organic Compounds (ug/L)																				
Tetrachloroethene	127-18-4	**5**	**1,700**	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	2.49	3.15	1.73	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Trichloroethene	79-01-6	**5**	**76**	**122**	**115**	**224**	**90.9**	**49.6**	**59**	**77.8**	**97.6**	**223**	**281**	**269**	**11.2**	**13**	**37**	**76.3**	**142**	**139**
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	4.52	16.5	28.2	13.7	4.89	11	12.3	19.2	17.3	19.8	39.8	2.30	2.87	11.4	39.9	33.6	62.8
Vinyl Chloride	75-01-4	**2**	**10**	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,1-Trichloroethane	71-55-6	**200**	70,000	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	79-00-5	**5**	61	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	75-34-3	NS	700	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	3.01	4.36	9.78
1,1-Dichloroethene	75-35-4	**7**	**180**	< 2.00	< 2.00	< 2.00	<2.00	<2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	2.14
1,2,4-Trimethylbenzene	95-63-6	NS	350	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	107-06-2	**5**	38	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,3,5-Trimethylbenzene	108-67-8	NS	350	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
2-Butanone	78-93-3	NS	21,000	< 10.0	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Acetone	67-64-1	NS	32,000	59.8	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	51	< 10.0	< 10.0
Benzene	71-43-2	**5**	64	< 0.50	< 0.50	< 0.50	<0.50	<0.50	< 0.500	< 0.500	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide	75-15-0	NS	3,500	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloroethane	75-00-3	NS	14,000	< 4.00	< 4.00	< 4.00	<4.00	<4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00
Chloroform	67-66-3	**80**	NS	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloromethane	74-87-3	NS	NS	< 3.00	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Cymene	99-87-6	NS	NS	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Ethylbenzene	100-41-4	**700**	3,500	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Isopropylbenzene	98-82-8	NS	3,500	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Naphthalene	91-20-3	NS	700	< 5.00	< 5.00	< 5.00	<5.00	<5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
n-Butylbenzene	104-51-8	NS	1,800	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
n-Propylbenzene	103-65-1	NS	17,000	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
sec-Butylbenzene	135-98-8	NS	NS	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
tert-Butylbenzene	98-06-6	NS	NS	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	108-88-3	1,000	5,000	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.36	< 1.00	< 1.00	1.78	< 1.00	< 1.00	< 1.00
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Xylenes, Total	1330-20-7	10,000	50,000	< 3.00	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
1,4-Dioxane	123-91-1	NS	1,000	NA	NA	NA	<2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																				
pH	-	NS	NS	7.28	7.08	7.18	6.67	7.28	7.21	-	7.06	7.48	NR	7.34	7.22	7.22	7.21	10.29	8	7.99
Specific conductance (mS/cm)	-	NS	NS	0.624	0.711	0.587	0.757	0.712	0.912	-	0.802	0.392	NR	0.451	0.494	0.662	0.511	0.288	0.609	0.673
Temperature (Degrees Celsius)	-	NS	NS	11.82	14.39	13.19	18.97	8.47	16.67	-	16.6	10.88	NR	13.59	9.75	16.11	13.15	8.67	15.37	9.77
ORP (millivolts)	-	NS	NS	NR	116.9	NR	-63.4	201.4	44.6	-	-141.1	NR	NR	NR	NR	102.5	NR	NR	25.5	95.7
DO (mg/L)	-	NS	NS	2.56	6.66	1.63	0.43	4.63	5.84	-	0.48	4.87	NR	2.43	3.07	4.82	3.58	8.09	3.54	3.93

Notes:
Method OA-2 and SW8260B results are in micrograms per liter (ug/L).
mS/cm = milliSiemens per centimeter
mg/L = milligrams per liter
MCL = Environmental Protection Agency's Maximum Contaminant Leve
Bold = Compound exceeds MCL
Total Extractable Petroleum Hydrocarbons are a sum of the three petroleum ranges: diesel, gasoline, and motor oil.

NS = No standard
NA = Not analyzed
NR = Not recorded
N = normal sample
FD = field duplicate sample

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-19							MW-20			MW-21		MW-22			MW-23				
				Apr 2011	May 2012	Dec 2012	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Apr 2011	May 2012	Dec 2012	Apr 2011	Dec 2012	Apr 2011	May 2012	Dec 2012	Apr 2011	May 2012		Dec 2012	
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	FD
Extractable Petroleum Hydrocarbons (ug/L)																							
Diesel (C12-C22)	-	NS	NS	< 300	< 390	< 300	-	-	-	-	< 300	< 300	-	36,000	23,500	10,300	24,300	32,900	3,120	9,240	7,860	11,200	14,500
Gasoline	-	NS	NS	13,000	< 390	< 300	-	-	-	-	< 300	< 300	-	17,000	8,230	3,760	6,540	6,540	763	1,780	1,460	1,540	1,920
Motor Oil	-	NS	NS	< 300	< 390	467	-	-	-	-	< 300	< 300	-	65,700	28,900	1,240	1,670	1,580	440	839	822	852	883
Total Extractable Petroleum Hydrocarbon	-	NS	NS	13,000	< 390	467	-	-	-	-	< 300	< 300	-	119,000	60,600	15,300	32,500	41,100	4,320	11,900	10,100	13,600	17,300
Volatile Organic Compounds (ug/L)																							
Tetrachloroethene	127-18-4	**5**	**1,700**	**548**	**< 10.0**	**< 1000**	**756**	**2,100**	**285**	**< 100**	< 1.00	< 1.00	< 1.00	2.22	1.79	1.94	**< 10.0**	< 5.00	< 1.00	< 1.00	< 5.00	< 1.00	< 10.0
Trichloroethene	79-01-6	**5**	**76**	**189,000**	**133,000**	**84,600**	**302,000**	**614,000**	**124,000**	**26,300**	**13.3**	**5.16**	**10.6**	3.08	1.94	1.19	**< 10.0**	< 5.00	< 1.00	< 1.00	< 5.00	< 1.00	< 10.0
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	**120**	**107**	**< 1000**	**696**	**4,750**	**372**	**637**	< 1.00	< 1.00	1.14	8.65	12.2	7.58	< 10.0	24	< 1.00	< 1.00	< 5.00	< 1.00	< 10.0
Vinyl Chloride	75-01-4	**2**	**10**	1.84	**< 10.0**	**< 1000**	**6.99**	**<2000**	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	1.18	**2.28**	**3.64**	**< 10.0**	**< 5.00**	< 1.00	< 1.00	< 5.00	< 1.00	< 10.0
1,1,1-Trichloroethane	71-55-6	**200**	70,000	**4,590**	12.6	**2,330**	**10,400**	**13,400**	**3,510**	**660**	< 1.00	< 1.00	< 1.00	**483**	86.3	90.3	< 10.0	32.4	< 1.00	< 1.00	< 5.00	< 1.00	< 10.0
1,1,2-Trichloroethane	79-00-5	**5**	61	**35.1**	**< 10.0**	**< 1000**	<1.00	**<2000**	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	**< 10.0**	< 5.00	< 1.00	< 1.00	< 5.00	< 1.00	< 10.0
1,1-Dichloroethane	75-34-3	NS	700	85	< 10.0	< 1000	212	<2000	< 100	< 100	< 1.00	< 1.00	< 1.00	37.6	42.8	292	334	515	13.3	4.85	8.70	6.58	< 10.0
1,1-Dichloroethene	75-35-4	**7**	**180**	**3,750**	**< 20.0**	**< 2000**	**6,140**	**7,310**	**1,800**	**444**	< 2.00	< 2.00	< 2.00	5.37	2.63	5.79	**< 20.0**	**< 10.0**	< 2.00	< 2.00	< 10.0	< 2.00	< 20.0
1,2,4-Trimethylbenzene	95-63-6	NS	350	< 1.00	< 10.0	< 1000	<1.00	**<2000**	< 100	< 100	< 1.00	< 1.00	< 1.00	285	171	246	260	143	31.9	65.5	27.8	33.9	31.1
1,2-Dichloroethane	107-06-2	**5**	38	**8.91**	**< 10.0**	**< 1000**	**28.5**	**<2000**	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	**< 10.0**	< 5.00	< 1.00	< 1.00	< 5.00	< 1.00	< 10.0
1,3,5-Trimethylbenzene	108-67-8	NS	350	< 1.00	< 10.0	< 1000	<1.00	<2000	< 100	< 100	< 1.00	< 1.00	< 1.00	104	68.1	71.6	72.8	42.8	9.44	6.73	< 5.00	4.54	< 10.0
2-Butanone	78-93-3	NS	21,000	< 10.0	< 100	< 10000	<10.0	<20000	< 1000	< 1000	< 10.0	< 10.0	< 10.0	25.6	15.3	< 10.0	< 100	59.2	< 10.0	< 10.0	< 50.0	< 10.0	< 100
Acetone	67-64-1	NS	32,000	< 10.0	< 100	< 10000	26.8	<20000	< 1000	< 1000	< 10.0	< 10.0	< 10.0	447	218	74.6	140	490	12.4	11.3	< 50.0	< 10.0	< 100
Benzene	71-43-2	**5**	64	1.76	**< 5.00**	**< 500**	<0.5	**<1000**	**< 50.0**	**< 50.0**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**< 5.00**	< 2.50	< 0.50	< 0.50	< 2.50	< 0.50	< 5.00
Carbon Disulfide	75-15-0	NS	3,500	< 1.00	< 10.0	< 1000	2.22	<2000	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	7.76	< 1.00	< 10.0	< 5.00	< 1.00	< 1.00	< 5.00	< 1.00	< 10.0
Chloroethane	75-00-3	NS	14,000	< 4.00	< 40.0	< 4000	<4.00	<8000	< 400	< 400	< 4.00	< 4.00	< 4.00	7.51	30.4	112	1,230	364	104	418	327	529	563
Chloroform	67-66-3	**80**	NS	4.03	< 10.0	**< 1000**	10.7	**<2000**	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	10.4	< 5.00	< 1.00	< 1.00	< 5.00	< 1.00	< 10.0
Chloromethane	74-87-3	NS	NS	11.7	< 30.0	< 3000	<3.00	<6000	< 300	< 300	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 30.0	< 15.0	< 3.00	< 3.00	< 15.0	< 3.00	< 30.0
Cymene	99-87-6	NS	NS	< 1.00	< 10.0	< 1000	<1.00	<2000	< 100	< 100	< 1.00	< 1.00	< 1.00	12	12	8.55	11.8	5.85	< 1.00	< 1.00	< 5.00	< 1.00	< 10.0
Ethylbenzene	100-41-4	**700**	3,500	33	< 10.0	**< 1000**	31.7	**<2000**	< 100	< 100	< 1.00	< 1.00	< 1.00	17.5	7.21	11.7	14	7.80	1.59	3.63	< 5.00	3.45	< 10.0
Isopropylbenzene	98-82-8	NS	3,500	< 1.00	< 10.0	< 1000	<1.00	<2000	< 100	< 100	< 1.00	< 1.00	< 1.00	27.8	13.7	30	30.7	15.6	5.07	12.8	8.00	10.9	10.0
Naphthalene	91-20-3	NS	700	< 5.00	< 50.0	< 5000	<5.00	<10000	< 500	< 500	< 5.00	< 5.00	< 5.00	38.4	20.9	36.8	< 50.0	< 25.0	5.80	9.85	< 25.0	< 5.00	< 50.0
n-Butylbenzene	104-51-8	NS	1,800	< 1.00	< 10.0	< 1000	<1.00	<2000	< 100	< 100	< 1.00	< 1.00	< 1.00	15.8	9.75	10.7	11.8	6.65	2.15	4.77	< 5.00	2.74	< 10.0
n-Propylbenzene	103-65-1	NS	17,000	< 1.00	< 10.0	< 1000	<1.00	<2000	< 100	< 100	< 1.00	< 1.00	< 1.00	52	25.4	49.2	55	27.3	7.68	17.7	11	13.9	13.0
sec-Butylbenzene	135-98-8	NS	NS	< 1.00	< 10.0	< 1000	<1.00	<2000	< 100	< 100	< 1.00	< 1.00	< 1.00	13.8	8.76	12.5	12.7	6.15	3.04	7.15	5.15	5.56	< 10.0
tert-Butylbenzene	98-06-6	NS	NS	< 1.00	< 10.0	< 1000	<1.00	<2000	< 100	< 100	< 1.00	< 1.00	< 1.00	3.06	2.06	2.75	< 10.0	< 5.00	< 1.00	1.78	< 5.00	1.71	< 10.0
Toluene	108-88-3	1,000	5,000	41.1	< 10.0	< 1000	74.6	**<2000**	< 100	< 100	< 1.00	< 1.00	1.83	6.64	3.46	12.5	15	12.2	< 1.00	< 1.00	< 5.00	1.05	< 10.0
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	2.25	< 10.0	**< 1000**	40.3	**<2000**	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	< 1.00	1.41	2.62	10	5.45	< 1.00	2.25	< 5.00	3.47	< 10.0
Xylenes, Total	1330-20-7	10,000	50,000	160	< 30.0	< 3000	178	<6000	< 300	< 300	< 3.00	< 3.00	< 3.00	226	116	130	161	91	11	3.43	< 15.0	4.25	< 30.0
1,4-Dioxane	123-91-1	NS	1,000	NA	NA	NA	<1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																							
pH	-	NS	NS	7.47	7.32	7.33	7.48	7.42	7.14	7.01	7.39	7.15	7.25	7.01	NR	6.89	6.81	6.83	7.3	6.84	-	6.93	-
Specific conductance (mS/cm)	-	NS	NS	0.703	0.745	0.732	0.734	0.578	0.644	0.672	0.619	0.669	0.646	0.773	NR	0.924	1.862	1.735	0.477	1.369	-	1.21	-
Temperature (Degrees Celsius)	-	NS	NS	9.89	15.84	11.56	18.72	8.29	17.29	19	9.04	15.14	13.05	9.37	NR	9.87	15.25	11.45	9.05	14.79	-	12.02	-
ORP (millivolts)	-	NS	NS	NR	-4.1	NR	-44	19	-77.5	-122	NR	64.6	42.6	NR	NR	NR	-134.2	-123	NR	-131.9	-	-77.5	-
DO (mg/L)	-	NS	NS	5.25	0.71	5.47	1.66	2.70	1.48	0.51	4.75	3.68	3.19	2.11	NR	2.06	0.18	0.5	2.54	0.34	-	0.34	-

Notes:
Method OA-2 and SW8260B results are in micrograms per liter (ug/L).
mS/cm = milliSiemens per centimeter
mg/L = milligrams per liter
MCL = Environmental Protection Agency's Maximum Contaminant Level
Bold = Compound exceeds MCL
Total Extractable Petroleum Hydrocarbons are a sum of the three petroleum ranges: diesel, gasoline, and motor oil.

NS = No standard
NA = Not analyzed
NR = Not recorded
N = normal sample
FD = field duplicate sample

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-24						MW-25D								MW-25S					
				May 2012	Dec 2012	Oct 2013	Apr 2014	Jul 2014	Oct 2014	May 2012		Dec 2012	Oct 2013	Apr 2014	Jul 2014	Oct 2014		May 2012	Dec 2012	Oct 2013	Apr 2014	Jul 2014	Oct 2014
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N	N
Extractable Petroleum Hydrocarbons (ug/L)																							
Diesel (C12-C22)	-	NS	NS	< 300	-	-	-	-	-	< 300	< 300	-	-	-	-	-	-	98,000	43,700	-	-	-	-
Gasoline	-	NS	NS	< 300	-	-	-	-	-	< 300	< 300	-	-	-	-	-	-	38,100	16,400	-	-	-	-
Motor Oil	-	NS	NS	< 300	-	-	-	-	-	< 300	< 300	-	-	-	-	-	-	597	1,070	-	-	-	-
Total Extractable Petroleum Hydrocarbon	-	NS	NS	< 300	-	-	-	-	-	< 300	< 300	-	-	-	-	-	-	137,000	61,200	-	-	-	-
Volatile Organic Compounds (ug/L)																							
Tetrachloroethene	127-18-4	**5**	**1,700**	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	**< 100**	**<10.0**	**<10.0**	**< 100**	**< 100**
Trichloroethene	79-01-6	**5**	**76**	3.58	< 1.00	<1.00	<1.00	2.43	**64.1**	**61**	**61.6**	**21.1**	**10.5**	**5.08**	**10.2**	**9.1**	**9.11**	**13,700**	**185**	**<200**	**1,320**	**< 100**	**< 100**
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	< 1.00	< 1.00	4.35	<1.00	< 1.00	4.79	28.3	29.6	6.64	2.5	<1.00	< 1.00	< 1.00	< 1.00	**29,800**	**59,000**	**38,900**	**45,900**	**33,400**	**30,400**
Vinyl Chloride	75-01-4	**2**	**10**	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	**15.1**	**15.6**	1.10	<1.00	<1.00	< 1.00	< 1.00	< 1.00	**16.1**	**2,810**	**2,180**	**6,060**	**3,030**	**2,890**
1,1,1-Trichloroethane	71-55-6	**200**	70,000	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
1,1,2-Trichloroethane	79-00-5	**5**	61	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	1.15	**< 100**	**<10.0**	**<10.0**	**< 100**	**< 100**
1,1-Dichloroethane	75-34-3	NS	700	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
1,1-Dichloroethene	75-35-4	**7**	**180**	< 2.00	< 2.00	<2.00	<2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	<2.00	<2.00	< 2.00	< 2.00	< 2.00	2.91	**< 200**	**50.6**	**88.6**	**< 200**	**< 200**
1,2,4-Trimethylbenzene	95-63-6	NS	350	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
1,2-Dichloroethane	107-06-2	**5**	38	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	**< 100**	**<10.0**	**<10.0**	**< 100**	**< 100**
1,3,5-Trimethylbenzene	108-67-8	NS	350	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
2-Butanone	78-93-3	NS	21,000	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 1000	264	<100	< 1000	< 1000
Acetone	67-64-1	NS	32,000	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	26.5	25.6	< 10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	45.2	2,840	4,250	7,590	9,790	4,710
Benzene	71-43-2	**5**	64	< 0.50	< 0.50	<0.50	<0.50	< 0.500	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	<0.50	< 0.50	< 0.50	< 0.50	< 0.50	**< 50.0**	<5.00	<5.00	**< 50.0**	**< 50.0**
Carbon Disulfide	75-15-0	NS	3,500	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	11.9	<10.0	< 100	< 100
Chloroethane	75-00-3	NS	14,000	< 4.00	< 4.00	<4.00	<4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	<4.00	<4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 400	<40	<40	< 400	< 400
Chloroform	67-66-3	**80**	NS	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
Chloromethane	74-87-3	NS	NS	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 300	<30	<30	< 300	< 300
Cymene	99-87-6	NS	NS	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
Ethylbenzene	100-41-4	**700**	3,500	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
Isopropylbenzene	98-82-8	NS	3,500	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
Naphthalene	91-20-3	NS	700	< 5.00	< 5.00	<5.00	<5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	<5.00	<5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 500	<50	<50	< 500	< 500
n-Butylbenzene	104-51-8	NS	1,800	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
n-Propylbenzene	103-65-1	NS	17,000	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
sec-Butylbenzene	135-98-8	NS	NS	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
tert-Butylbenzene	98-06-6	NS	NS	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
Toluene	108-88-3	1,000	5,000	1.23	1.08	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 100	<10.0	<10.0	< 100	< 100
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	1.63	**230**	**205**	**686**	**137**	**110**
Xylenes, Total	1330-20-7	10,000	50,000	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 300	<30	<30	< 300	< 300
1,4-Dioxane	123-91-1	NS	1,000	NA	NA	<2.00	NA	NA	NA	NA	NA	NA	<2.00	NA	NA	NA	NA	NA	NA	144	NA	NA	NA
Field Parameters																							
pH	-	NS	NS	6.96	7.14	6.96	6.99	6.94	6.92	7.12	-	7.07	6.97	7.25	7.14	7.05	-	6.88	7.06	6.93	7.00	6.78	6.85
Specific conductance (mS/cm)	-	NS	NS	1.056	0.983	0.973	0.866	0.95	0.916	0.897	-	0.899	0.892	0.832	0.864	0.84	-	2.001	1.784	1.809	1.997	1.961	2.076
Temperature (Degrees Celsius)	-	NS	NS	16.78	15.18	20.91	14.18	18.34	19.1	19.04	-	12.72	19.69	11.82	20.07	19.3	-	17.11	15.16	21.79	10.86	17.96	19.9
ORP (millivolts)	-	NS	NS	11.1	NR	-20.6	162.1	40.3	-112.8	-2.7	-	-8.9	-32.4	51.7	52.3	-108.1	-	-33.6	-79.2	-110.1	-124.6	-87.3	-143.7
DO (mg/L)	-	NS	NS	1.43	3.54	0.52	2.81	1.9	2.33	0.98	-	0.4	0.18	1.78	0.57	0.21	-	2.43	1.49	0.29	0.41	0.57	0.13

Notes:
Method OA-2 and SW8260B results are in micrograms per liter (ug/L).
mS/cm = milliSiemens per centimeter
mg/L = milligrams per liter
MCL = Environmental Protection Agency's Maximum Contaminant Level
Bold = Compound exceeds MCL
Total Extractable Petroleum Hydrocarbons are a sum of the three petroleum ranges: diesel, gasoline, and motor oil.

NS = No standard
NA = Not analyzed
NR = Not recorded
N = normal sample
FD = field duplicate sample

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-26D						MW-26S						MW-27		MW-28					
				May 2012	Dec 2012	Oct 2013	Apr 2014	Jul 2014	Oct 2014	May 2012	Dec 2012	Oct 2013	Apr 2014	Jul 2014	Oct 2014	May 2012	Dec 2012	May 2012	Dec 2012	Oct 2013	Apr 2014	Jul 2014	Oct 2014
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Extractable Petroleum Hydrocarbons (ug/L)																							
Diesel (C12-C22)	-	NS	NS	< 429	-	-	-	-	-	< 300	< 300	-	-	-	-	7,440	-	7,140	3,360	-	-	-	-
Gasoline	-	NS	NS	< 429	-	-	-	-	-	472	< 300	-	-	-	-	2,270	-	3,430	6,530	-	-	-	-
Motor Oil	-	NS	NS	< 429	-	-	-	-	-	< 300	520	-	-	-	-	< 341	-	< 380	< 300	-	-	-	-
Total Extractable Petroleum Hydrocarbon	-	NS	NS	< 429	-	-	-	-	-	472	520	-	-	-	-	9,710	-	10,600	9,890	-	-	-	-
Volatile Organic Compounds (ug/L)																							
Tetrachloroethene	127-18-4	**5**	**1,700**	**< 10.0**	**< 10.0**	<1.00	<1.00	< 1.00	< 1.00	**< 10.0**	**< 1000**	**<50**	**<100**	**< 100**	**< 100**	< 1.00	< 1.00	**< 100**	**< 100**	**39.9**	**42.6**	**< 100**	**< 100**
Trichloroethene	79-01-6	**5**	**76**	**637**	**338**	**76.2**	**123**	**51.5**	**133**	**43,300**	**19,000**	**27,900**	**43,200**	**67,200**	**56,000**	**8.13**	1.67	**28,400**	**33,400**	**38,800**	**48,600**	**31,300**	**32,700**
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	26.6	13.3	5.18	6.68	13.7	12	**778**	**< 1000**	**545**	**518**	**792**	**959**	1.73	62.8	**81,400**	**82,800**	**91,400**	**102,000**	**85,500**	**66,600**
Vinyl Chloride	75-01-4	**2**	**10**	**< 10.0**	**< 10.0**	<1.00	<1.00	< 1.00	< 1.00	**32.1**	**< 1000**	**5.29**	<1.00	**< 100**	**< 100**	1.33	< 1.00	**5,630**	**6,360**	**6,040**	**10,500**	**7,620**	**8,540**
1,1,1-Trichloroethane	71-55-6	**200**	70,000	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 100	< 100	<1.00	<1.00	< 100	< 100
1,1,2-Trichloroethane	79-00-5	**5**	61	**< 10.0**	**< 10.0**	<1.00	<1.00	< 1.00	< 1.00	**< 10.0**	**< 1000**	<1.00	<1.00	**< 100**	**< 100**	< 1.00	< 1.00	**< 100**	**< 100**	<1.00	<1.00	**< 100**	**< 100**
1,1-Dichloroethane	75-34-3	NS	700	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	1.8	<100	< 100	< 100	40	31.4	< 100	< 100	5.2	5.57	< 100	< 100
1,1-Dichloroethene	75-35-4	**7**	**180**	**< 20.0**	**< 20.0**	<2.00	<2.00	< 2.00	< 2.00	**51.4**	**< 2000**	**<100**	**36.3**	**< 200**	**< 200**	< 2.00	< 2.00	**361**	**< 200**	**164**	**157**	**< 200**	**< 200**
1,2,4-Trimethylbenzene	95-63-6	NS	350	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	18.9	1.15	< 100	< 100	<1.00	<1.00	< 100	< 100
1,2-Dichloroethane	107-06-2	**5**	38	**< 10.0**	**< 10.0**	<1.00	<1.00	< 1.00	< 1.00	**< 10.0**	**< 1000**	<1.00	<1.00	**< 100**	**< 100**	< 1.00	< 1.00	**< 100**	**< 100**	2.09	2.1	**< 100**	**< 100**
1,3,5-Trimethylbenzene	108-67-8	NS	350	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	18.3	< 1.00	< 100	< 100	<1.00	<1.00	< 100	< 100
2-Butanone	78-93-3	NS	21,000	< 100	< 100	<10.0	<10.0	< 10.0	< 10.0	< 100	< 10000	<10.0	<10.0	< 1000	< 1000	< 10.0	< 10.0	< 1000	< 1000	<10.0	<10.0	< 1000	< 1000
Acetone	67-64-1	NS	32,000	< 100	< 100	<10.0	<10.0	< 10.0	< 10.0	< 100	< 10000	<10.0	<10.0	< 1000	< 1000	23.1	< 10.0	< 1000	< 1000	24.7	<10.0	< 1000	< 1000
Benzene	71-43-2	**5**	64	< 5.00	< 5.00	<0.50	<0.50	< 0.500	< 0.50	< 5.00	**< 500**	<0.50	<0.50	**< 50.0**	**< 50.0**	< 0.50	< 0.50	**< 50.0**	**< 50.0**	0.894	0.832	**< 50.0**	**< 50.0**
Carbon Disulfide	75-15-0	NS	3,500	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	1.04	< 1.00	< 100	< 100	5.97	<1.00	< 100	< 100
Chloroethane	75-00-3	NS	14,000	< 40.0	< 40.0	<4.00	<4.00	< 4.00	< 4.00	< 40.0	< 4000	<4.00	<4.00	< 400	< 400	56	6.48	< 400	< 400	<4.00	<4.00	< 400	< 400
Chloroform	67-66-3	**80**	NS	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	**< 1000**	<1.00	<1.00	**< 100**	**< 100**	< 1.00	< 1.00	**< 100**	**< 100**	<1.00	<1.00	**< 100**	**< 100**
Chloromethane	74-87-3	NS	NS	< 30.0	< 30.0	<3.00	<3.00	< 3.00	< 3.00	< 30.0	< 3000	<3.00	<3.00	< 300	< 300	< 3.00	< 3.00	< 300	< 300	<3.00	<3.00	< 300	< 300
Cymene	99-87-6	NS	NS	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	2.56	< 1.00	< 100	< 100	<1.00	<1.00	< 100	< 100
Ethylbenzene	100-41-4	**700**	3,500	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	**< 1000**	<1.00	<1.00	< 100	< 100	1.25	< 1.00	< 100	< 100	<1.00	<1.00	< 100	< 100
Isopropylbenzene	98-82-8	NS	3,500	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	4.19	< 1.00	< 100	< 100	<1.00	<1.00	< 100	< 100
Naphthalene	91-20-3	NS	700	< 50.0	< 50.0	<5.00	<5.00	< 5.00	< 5.00	< 50.0	< 5000	<5.00	<5.00	< 500	< 500	< 5.00	< 5.00	< 500	< 500	<5.00	<5.00	< 500	< 500
n-Butylbenzene	104-51-8	NS	1,800	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	3.08	< 1.00	< 100	< 100	<1.00	<1.00	< 100	< 100
n-Propylbenzene	103-65-1	NS	17,000	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	7.00	< 1.00	< 100	< 100	<1.00	<1.00	< 100	< 100
sec-Butylbenzene	135-98-8	NS	NS	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	2.51	< 1.00	< 100	< 100	<1.00	<1.00	< 100	< 100
tert-Butylbenzene	98-06-6	NS	NS	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 100	< 100	<1.00	<1.00	< 100	< 100
Toluene	108-88-3	1,000	5,000	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	< 10.0	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 100	< 100	2.3	2.37	< 100	< 100
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	< 10.0	< 10.0	<1.00	<1.00	< 1.00	< 1.00	13.3	**< 1000**	9.86	10.9	< 100	< 100	1.23	< 1.00	**581**	**605**	**660**	**895**	**842**	**621**
Xylenes, Total	1330-20-7	10,000	50,000	< 30.0	< 30.0	<3.00	<3.00	< 3.00	< 3.00	< 30.0	< 3000	<3.00	<3.00	< 300	< 300	< 3.00	< 3.00	< 300	< 300	3.72	3.33	< 300	< 300
1,4-Dioxane	123-91-1	NS	1,000	NA	NA	<2.00	NA	NA	NA	NA	NA	<100	NA	NA	NA	NA	NA	NA	NA	618	NA	NA	NA
Field Parameters																							
pH	-	NS	NS	7.18	7.34	7.08	7.07	6.95	6.92	7.11	7.17	7.28	7.24	7.15	7.05	6.82	6.93	7.02	6.99	6.91	6.85	6.96	6.72
Specific conductance (mS/cm)	-	NS	NS	0.85	0.828	0.835	0.813	0.798	0.86	0.958	0.963	0.889	0.873	0.966	0.92	1.599	1.338	14.82	1.08	1.537	1.477	1.457	1.46
Temperature (Degrees Celsius)	-	NS	NS	18.88	15.97	19.63	11.72	20.6	18.6	18.51	17.06	22.29	10.82	21.59	19.7	15.75	15.44	17.32	9.46	21.78	10.74	19.11	19.5
ORP (millivolts)	-	NS	NS	30	NR	-46.1	39.1	51.4	-72.7	29.8	NR	-43	49.5	147.6	-122.7	-44.1	27.5	-38.7	-1.9	-83.8	30.3	-59.2	-100.6
DO (mg/L)	-	NS	NS	0.87	3.4	0.57	2.47	1.46	1.1	4.35	3.44	0.61	3.27	2.12	1.66	0.91	0.56	1.39	0.58	0.21	0.38	0.28	0.35

Notes:
Method OA-2 and SW8260B results are in micrograms per liter (ug/L).
mS/cm = milliSiemens per centimeter
mg/L = milligrams per liter
MCL = Environmental Protection Agency's Maximum Contaminant Level
Bold = Compound exceeds MCL
NS = No standard
NA = Not analyzed
NR = Not recorded
N = normal sample
FD = field duplicate sample
Total Extractable Petroleum Hydrocarbons are a sum of the three petroleum ranges: diesel, gasoline, and motor oil.

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-29						MW-30		MW-31						MW-32	MW-33	MW-34	MW-35	MW-36D	MW-36S
				May 2012	Dec 2012	Oct 2013	Apr 2014	Jul 2014	Oct 2014	May 2012	Dec 2012	May 2012	Dec 2012	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Dec 2012	Dec 2012	Dec 2012	Dec 2012	Dec 2012	Dec 2012
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Extractable Petroleum Hydrocarbons (ug/L)																							
Diesel (C12-C22)	-	NS	NS	< 300	< 300	-	-	-	-	< 333	-	< 300	< 300	-	-	-	-	< 300	< 300	718	19,100	< 300	44,200
Gasoline	-	NS	NS	6,480	< 300	-	-	-	-	< 333	-	403	< 300	-	-	-	-	< 300	< 300	< 300	2,270	< 300	5,220
Motor Oil	-	NS	NS	< 300	< 300	-	-	-	-	< 333	-	< 300	< 300	-	-	-	-	< 300	< 300	411	4,390	443	2,390
Total Extractable Petroleum Hydrocarbon	-	NS	NS	6,480	< 300	-	-	-	-	< 333	-	403	< 300	-	-	-	-	< 300	< 300	1,130	25,800	443	51,900
Volatile Organic Compounds (ug/L)																							
Tetrachloroethene	127-18-4	**5**	**1,700**	**103**	**< 1000**	**6.68**	**20.2**	**< 100**	**< 100**	< 1.00	< 1.00	**8.05**	2.97	**7.02**	**<100**	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	3.13	< 1.00	1.83
Trichloroethene	79-01-6	**5**	**76**	**190,000**	**53,500**	**32,900**	**70,500**	**98,000**	**63,000**	**18.1**	3.45	**1,620**	**1,060**	**2,290**	**5,580**	**2,710**	**4,130**	< 1.00	1.69	< 1.00	**8.64**	**10.4**	**30.3**
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	**976**	**< 1000**	**1,490**	**745**	**759**	**989**	1.02	1.52	**4,690**	**4,410**	**7,170**	**12,600**	**6,780**	**9,720**	< 1.00	< 1.00	< 1.00	**399**	43.4	**490**
Vinyl Chloride	75-01-4	**2**	**10**	**27.6**	**< 1000**	**<50**	**9.95**	**< 100**	**< 100**	< 1.00	< 1.00	**113**	**91.4**	**55.1**	**<100**	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	**40.4**	< 1.00	**18**
1,1,1-Trichloroethane	71-55-6	**200**	70,000	103	**< 1000**	1.62	16.6	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	23.1	< 1.00	< 1.00
1,1,2-Trichloroethane	79-00-5	**5**	61	**24**	**< 1000**	1.03	4.99	**< 100**	**< 100**	< 1.00	< 1.00	1.37	1.75	2.64	**<100**	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	75-34-3	NS	700	133	< 1000	21.4	48.8	< 100	< 100	< 4.00	< 1.00	< 4.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	474	< 1.00	76.7
1,1-Dichloroethene	75-35-4	**7**	**180**	**988**	**< 2000**	**251**	**475**	**404**	**647**	< 2.00	< 2.00	2.29	< 2.00	3.42	**<200**	**< 200**	**< 200**	< 2.00	< 2.00	< 2.00	5.99	< 2.00	2.24
1,2,4-Trimethylbenzene	95-63-6	NS	350	< 1.00	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	286	< 1.00	31.4
1,2-Dichloroethane	107-06-2	**5**	38	**22.7**	**< 1000**	4.82	**11.5**	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	**<100**	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	4.29	< 1.00	1.26
1,3,5-Trimethylbenzene	108-67-8	NS	350	< 1.00	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	95.3	< 1.00	15.4
2-Butanone	78-93-3	NS	21,000	23.5	< 10000	<10.0	<10.0	< 1000	< 1000	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	<1000	< 1000	< 1000	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Acetone	67-64-1	NS	32,000	169	< 10000	<10.0	<10.0	< 1000	< 1000	28.7	< 10.0	35.5	< 10.0	<10.0	<1000	< 1000	< 1000	< 10.0	< 10.0	< 10.0	26.1	< 10.0	63.8
Benzene	71-43-2	**5**	64	3.37	**< 500**	0.827	<0.50	**< 50.0**	**< 50.0**	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	**<50.0**	**< 50.0**	**< 50.0**	< 0.50	< 0.50	< 0.50	0.52	< 0.50	< 0.50
Carbon Disulfide	75-15-0	NS	3,500	1.90	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	1.24	< 1.00	< 1.00
Chloroethane	75-00-3	NS	14,000	< 4.00	< 4000	<4.00	<4.00	< 400	< 400	< 4.00	< 4.00	< 4.00	< 4.00	<4.00	<400	< 400	< 400	< 4.00	< 4.00	< 4.00	109	< 4.00	28.2
Chloroform	67-66-3	**80**	NS	2.07	**< 1000**	<1.00	<1.00	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	**<100**	**< 100**	**< 100**	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloromethane	74-87-3	NS	NS	< 3.00	< 3000	<3.00	<3.00	< 300	< 300	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	<300	< 300	< 300	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Cymene	99-87-6	NS	NS	< 1.00	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	10.2	< 1.00	1.92
Ethylbenzene	100-41-4	**700**	3,500	3.09	**< 1000**	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	12.7	< 1.00	1.65
Isopropylbenzene	98-82-8	NS	3,500	< 1.00	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	25.9	< 1.00	2.48
Naphthalene	91-20-3	NS	700	< 5.00	< 5000	<5.00	<5.00	< 500	< 500	< 5.00	< 5.00	< 5.00	< 5.00	<5.00	<500	< 500	< 500	< 5.00	< 5.00	< 5.00	35.4	< 5.00	< 5.00
n-Butylbenzene	104-51-8	NS	1,800	< 1.00	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	14.6	< 1.00	1.66
n-Propylbenzene	103-65-1	NS	17,000	< 1.00	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	50	< 1.00	3.21
sec-Butylbenzene	135-98-8	NS	NS	< 1.00	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	12.6	< 1.00	1.19
tert-Butylbenzene	98-06-6	NS	NS	< 1.00	< 1000	<1.00	<1.00	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	2.17	< 1.00	< 1.00
Toluene	108-88-3	1,000	5,000	7.93	< 1000	<1.00	1.45	< 100	< 100	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<100	< 100	< 100	< 1.00	< 1.00	< 1.00	14.6	< 1.00	4.25
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	13.5	**< 1000**	<50	12	< 100	< 100	< 1.00	< 1.00	59.7	65	**193**	**112**	< 100	< 100	< 1.00	< 1.00	< 1.00	48.9	2.58	34.8
Xylenes, Total	1330-20-7	10,000	50,000	20.3	< 3000	<3.00	<3.00	< 300	< 300	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	<300	< 300	< 300	< 3.00	< 3.00	< 3.00	170	< 3.00	30.7
1,4-Dioxane	123-91-1	NS	1,000	NA	NA	<200	NA	NA	NA	NA	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																							
pH	-	NS	NS	7.19	7.29	7.41	7.22	6.95	6.78	7.13	7.33	7.08	7.2	7.07	7.17	7.29	7.14	8.8	6.88	7	NR	7.14	7
Specific conductance (mS/cm)	-	NS	NS	1.328	0.848	0.612	0.882	1.134	1.07	0.979	0.836	1.132	1.094	1.121	1.097	1.091	1.022	0.583	0.963	0.971	NR	1.094	1.435
Temperature (Degrees Celsius)	-	NS	NS	15.33	8.39	18.46	10.61	15.92	16.8	16.24	9.1	13.93	10.54	20.19	9.37	20.49	16.2	15.71	16.51	16.05	NR	13.54	14.73
ORP (millivolts)	-	NS	NS	-58.4	32	-64	74.2	-4.2	-103	-60.8	53.7	232.2	83.5	0.4	-24.8	123	-83	NR	NR	NR	NR	140.2	-27.7
DO (mg/L)	-	NS	NS	0.96	3.05	1.27	4.65	0.84	2.17	1.37	4.81	2.93	2.03	0.48	2.30	2.31	2.78	0.66	0.46	0.84	NR	1.52	0.5

Notes:
Method OA-2 and SW8260B results are in micrograms per liter (ug/L).
mS/cm = milliSiemens per centimeter
mg/L = milligrams per liter
MCL = Environmental Protection Agency's Maximum Contaminant Level
Bold = Compound exceeds MCL
Total Extractable Petroleum Hydrocarbons are a sum of the three petroleum ranges: diesel, gasoline, and motor oil.

NS = No standard
NA = Not analyzed
NR = Not recorded
N = normal sample
FD = field duplicate sample

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-37	MW-38	MW-39	MW-40	MW-41	MW-42	MW-43D							MW-43I	MW-43S	MW-44	MW-45	
				Dec 2012	Dec 2012	Dec 2012	Dec 2012	Dec 2012	Dec 2012	Dec 2012	Mar 2013		Oct 2013	Apr 2014	Jul 2014	Oct 2014	Dec 2012	Dec 2012	Dec 2012	Dec 2012	
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	FD
Extractable Petroleum Hydrocarbons (ug/L)																					
Diesel (C12-C22)	-	NS	NS	< 300	< 300	395	383	< 300	< 300	< 300	< 288	-	-	-	-	-	< 300	< 300	< 300	< 300	< 300
Gasoline	-	NS	NS	< 300	< 300	< 300	< 300	< 300	< 300	< 300	< 288	-	-	-	-	-	< 300	< 300	< 300	< 300	430
Motor Oil	-	NS	NS	< 300	< 300	890	726	< 300	410	< 300	< 288	-	-	-	-	-	< 300	< 300	477	< 300	< 300
Total Extractable Petroleum Hydrocarbon	-	NS	NS	< 300	< 300	1,280	1,110	< 300	410	< 300	< 288	-	-	-	-	-	< 300	< 300	477	< 300	430
Volatile Organic Compounds (ug/L)																					
Tetrachloroethene	127-18-4	**5**	**1,700**	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	1.51	< 1.00	**70.3**	**92.0**
Trichloroethene	79-01-6	**5**	**76**	1.42	< 1.00	< 1.00	< 1.00	1.03	< 1.00	**9.13**	4.70	4.65	2.28	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	**32,500**	**29,000**
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	4.14	< 1.00	1.92	8.20	5.09	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	**1,040**	**1,070**
Vinyl Chloride	75-01-4	**2**	**10**	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	**6.15**	**6.27**
1,1,1-Trichloroethane	71-55-6	**200**	70,000	1.64	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	1.26	< 1.00	2.89	3.05
1,1,2-Trichloroethane	79-00-5	**5**	61	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.60	1.75
1,1-Dichloroethane	75-34-3	NS	700	28.1	2.16	314	< 1.00	67.9	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	2.61	2.47
1,1-Dichloroethene	75-35-4	**7**	**180**	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	<2.00	<2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	**27.7**	**26.7**
1,2,4-Trimethylbenzene	95-63-6	NS	350	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	107-06-2	**5**	38	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.41	1.29
1,3,5-Trimethylbenzene	108-67-8	NS	350	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
2-Butanone	78-93-3	NS	21,000	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Acetone	67-64-1	NS	32,000	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	11.4	< 10.0
Benzene	71-43-2	**5**	64	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	<0.50	< 0.500	< 0.50	< 0.50	< 0.50	< 0.50	0.88	0.85
Carbon Disulfide	75-15-0	NS	3,500	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloroethane	75-00-3	NS	14,000	< 4.00	< 4.00	7.08	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	<4.00	<4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00
Chloroform	67-66-3	**80**	NS	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	7.99	3.56	3.41	1.81	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	4.38	4.32
Chloromethane	74-87-3	NS	NS	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Cymene	99-87-6	NS	NS	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Ethylbenzene	100-41-4	**700**	3,500	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.22	1.43
Isopropylbenzene	98-82-8	NS	3,500	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Naphthalene	91-20-3	NS	700	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	<5.00	<5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
n-Butylbenzene	104-51-8	NS	1,800	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
n-Propylbenzene	103-65-1	NS	17,000	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
sec-Butylbenzene	135-98-8	NS	NS	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
tert-Butylbenzene	98-06-6	NS	NS	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	108-88-3	1,000	5,000	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	2.23	2.36
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	15.4	18.7
Xylenes, Total	1330-20-7	10,000	50,000	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	6.90	8.65
1,4-Dioxane	123-91-1	NS	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.00	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																					
pH	-	NS	NS	7.15	7.29	7.15	7.17	7.27	7.31	7.34	7.09	-	7.06	7.34	6.92	7.03	7.39	7.26	7.36	7.05	-
Specific conductance (mS/cm)	-	NS	NS	0.819	0.78	0.998	1.438	0.915	0.973	0.87	0.79	-	0.782	0.715	0.721	0.741	0.709	0.915	0.961	0.607	-
Temperature (Degrees Celsius)	-	NS	NS	11.72	11.33	9.61	11.24	12.41	10.4	12	10.2	-	15.07	12.25	13.86	14.2	10.96	9.06	10.74	9.76	-
ORP (millivolts)	-	NS	NS	96.2	94.8	87.5	96.6	40.1	14.3	56.1	51.7	-	-76	56.2	191.5	-81.4	-50.9	195.1	8	5.3	-
DO (mg/L)	-	NS	NS	3.62	5.44	1.82	0.66	2.31	2.78	2.68	1.77	-	0.26	2.35	0.72	0.24	1.6	4.26	1.47	0.48	-

Notes:
Method OA-2 and SW8260B results are in micrograms per liter (ug/L).
mS/cm = milliSiemens per centimeter
mg/L = milligrams per liter
MCL = Environmental Protection Agency's Maximum Contaminant Level
Bold = Compound exceeds MCL
NS = No standard
NA = Not analyzed
NR = Not recorded
N = normal sample
FD = field duplicate sample
Total Extractable Petroleum Hydrocarbons are a sum of the three petroleum ranges: diesel, gasoline, and motor oil.

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-46							MW-47D										MW-47S	MW-48	MW-49	MW-50
				Dec 2012		Mar 2013	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Dec 2012		Mar 2013	Oct 2013	Apr 2014		Jul 2014	Oct 2014	Dec 2014	Mar 2015	Dec 2012	Dec 2012	Dec 2012	Dec 2012
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	FD	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N
Extractable Petroleum Hydrocarbons (ug/L)																								
Diesel (C12-C22)	-	NS	NS	< 300	< 300	< 288	-		-	-	< 300	< 300	< 288	-	-	-	-	-	-	-	1,630	< 300	627	375
Gasoline	-	NS	NS	< 300	967	< 288	-		-	-	< 300	< 300	< 288	-	-	-	-	-	-	-	7,920	< 300	< 375	< 300
Motor Oil	-	NS	NS	< 300	< 300	360	-		-	-	733	955	347	-	-	-	-	-	-	-	409	< 300	1,760	523
Total Extractable Petroleum Hydrocarbon	-	NS	NS	< 300	967	360	-		-	-	733	955	347	-	-	-	-	-	-	-	9,950	< 300	2,380	898
Volatile Organic Compounds (ug/L)																								
Tetrachloroethene	127-18-4	**5**	**1,700**	**10.5**	**13.2**	**< 10.0**	**14.7**	1.23	**11.5**	**< 100**	**< 1000**	**< 1000**	**< 100**	**6.98**	3.47	3.56	< 100	**4.04**	<100	**4.84**	**23.9**	< 1.00	< 1.00	< 1.00
Trichloroethene	79-01-6	**5**	**76**	**15,400**	**16,100**	**2,140**	**15,900**	**1,640**	**21,000**	**14,700**	**42,700**	**43,300**	**32,000**	**10,200**	**43,200**	**43,100**	**25,300**	**26,700**	**25,500**	**28,800**	**54,400**	**47.7**	**12.7**	**5.40**
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	**< 100**	38.7	**290**	**1,950**	**424**	**359**	**883**	**4,900**	**5,480**	**7,340**	**5,500**	**19,500**	**21,900**	**20,900**	**28,800**	**35,700**	**37,000**	**100,000**	52.4	**445**	1.80
Vinyl Chloride	75-01-4	**2**	**10**	< 1.00	< 1.00	**< 10.0**	1.05	<1.00	< 10.0	< 100	**< 1000**	**< 1000**	**< 100**	**134**	**388**	**392**	**492**	**567**	**503**	**491**	**4,800**	1.07	**15**	< 1.00
1,1,1-Trichloroethane	71-55-6	**200**	70,000	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	**< 1000**	**< 1000**	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	79-00-5	**5**	61	< 1.00	< 1.00	**< 10.0**	<1.00	<1.00	< 10.0	< 100	**< 1000**	**< 1000**	**< 100**	<1.00	<1.00	<1.00	**< 100**	< 1.00	**<100**	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	75-34-3	NS	700	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene	75-35-4	**7**	**180**	6.44	5.85	**< 20.0**	**10.4**	**2.61**	**< 20.0**	**< 200**	**< 2000**	**< 2000**	**< 200**	**116**	**176**	**175**	**< 200**	**123**	**<200**	**110**	**140**	< 2.00	< 2.00	< 2.00
1,2,4-Trimethylbenzene	95-63-6	NS	350	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	107-06-2	**5**	38	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	**< 1000**	**< 1000**	**< 100**	<1.00	<1.00	<1.00	**< 100**	< 1.00	**<100**	< 1.00	2.52	< 1.00	< 1.00	< 1.00
1,3,5-Trimethylbenzene	108-67-8	NS	350	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
2-Butanone	78-93-3	NS	21,000	< 10.0	< 10.0	< 100	<10.0	<10.0	< 100	< 1000	< 10000	< 10000	< 1000	<10.0	<10.0	<10.0	< 1000	< 10.0	<1000	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Acetone	67-64-1	NS	32,000	< 10.0	< 10.0	< 100	<10.0	<10.0	< 100	< 1000	< 10000	< 10000	< 1000	<10.0	<10.0	<10.0	< 1000	< 10.0	<1000	< 10.0	375	18.8	< 10.0	< 10.0
Benzene	71-43-2	**5**	64	< 0.50	< 0.50	< 5.00	<0.50	<0.50	< 5.00	**< 50.0**	**< 500**	**< 500**	**< 50.0**	<0.50	<0.50	<0.50	**< 50.0**	< 0.50	**<50.0**	< 0.50	0.96	< 0.50	< 0.50	< 0.50
Carbon Disulfide	75-15-0	NS	3,500	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloroethane	75-00-3	NS	14,000	< 4.00	< 4.00	< 40.0	<4.00	<4.00	< 40.0	< 400	< 4000	< 4000	< 400	<4.00	<4.00	<4.00	< 400	< 4.00	<400	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00
Chloroform	67-66-3	**80**	NS	1.88	1.72	< 10.0	<1.00	<1.00	< 10.0	< 100	**< 1000**	**< 1000**	**< 100**	<1.00	<1.00	<1.00	**< 100**	< 1.00	**<100**	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloromethane	74-87-3	NS	NS	< 3.00	< 3.00	< 30.0	<3.00	<3.00	< 30.0	< 300	< 3000	< 3000	< 300	<3.00	<3.00	<3.00	< 300	< 3.00	<300	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Cymene	99-87-6	NS	NS	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Ethylbenzene	100-41-4	**700**	3,500	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	**< 1000**	**< 1000**	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Isopropylbenzene	98-82-8	NS	3,500	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Naphthalene	91-20-3	NS	700	< 5.00	< 5.00	< 50.0	<5.00	<5.00	< 50.0	< 500	< 5000	< 5000	< 500	<5.00	<5.00	<5.00	< 500	< 5.00	<500	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
n-Butylbenzene	104-51-8	NS	1,800	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
n-Propylbenzene	103-65-1	NS	17,000	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
sec-Butylbenzene	135-98-8	NS	NS	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
tert-Butylbenzene	98-06-6	NS	NS	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	108-88-3	1,000	5,000	< 1.00	< 1.00	< 10.0	<1.00	<1.00	< 10.0	< 100	< 1000	< 1000	< 100	<1.00	<1.00	<1.00	< 100	< 1.00	<100	< 1.00	4.38	1.01	1.36	< 1.00
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	4.09	3.11	< 10.0	23.7	3.71	< 10.0	< 100	**< 1000**	**< 1000**	< 100	**183**	**161**	**343**	< 100	**577**	**124**	**321**	**708**	< 1.00	45.8	< 1.00
Xylenes, Total	1330-20-7	10,000	50,000	< 3.00	< 3.00	< 30.0	<3.00	<3.00	< 30.0	< 300	< 3000	< 3000	< 300	<3.00	<3.00	<3.00	< 300	< 3.00	<300	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
1,4-Dioxane	123-91-1	NS	1,000	NA	NA	NA	<40	NA	NA	NA	NA	NA	NA	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																								
pH	-	NS	NS	6.97	-	7.04	6.81	7.11	6.93	6.93	7.2	-	7.11	7.06	6.98	-	7.02	6.89	7.25	6.74	6.88	7.27	7.3	6.91
Specific conductance (mS/cm)	-	NS	NS	0.563	-	0.771	0.719	0.692	0.762	0.77	0.74	-	0.982	1.462	1.238	-	1.119	1.33	1.34	1.31	1.697	0.64	0.701	1.004
Temperature (Degrees Celsius)	-	NS	NS	8.4	-	10.97	17.2	12.6	14.98	15.3	14.56	-	12.6	19.58	13.62	-	19.04	16.8	12.47	12.38	15.81	19.34	11.27	12.54
ORP (millivolts)	-	NS	NS	40.2	-	-36.0	-94.5	-3.1	-24.4	-79.2	-155	-	-19.5	-25.7	-26.3	-	50.4	-122.9	-26	-41	NR	5.2	22.8	NR
DO (mg/L)	-	NS	NS	0.5	-	0.49	0.2	0.02	0.33	0.14	0.29	-	0.45	0.24	0.40	-	0.32	0.17	0	0	0.95	1.53	4.21	0.93

Notes:
Method OA-2 and SW8260B results are in micrograms per liter (ug/L).
mS/cm = milliSiemens per centimeter
mg/L = milligrams per liter
MCL = Environmental Protection Agency's Maximum Contaminant Level
Bold = Compound exceeds MCL
NS = No standard
NA = Not analyzed
NR = Not recorded
N = normal sample
FD = field duplicate sample
Total Extractable Petroleum Hydrocarbons are a sum of the three petroleum ranges: diesel, gasoline, and motor oil.

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-51	MW-52		MW-53					MW-54	MW-55D		MW-55S	MW-56D	MW-56S	MW-57					MW-58	MW-59
				Dec 2012	Dec 2012		Dec 2012	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Dec 2012	Dec 2012		Dec 2012	Mar 2013	Mar 2013	Mar 2013	Apr 2014		Jul 2014	Oct 2014	Mar 2013	Mar 2013
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	N	FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Extractable Petroleum Hydrocarbons (ug/L)																								
Diesel (C12-C22)	-	NS	NS	909	1,890	-	< 300	-	-	-	-	< 300	< 300	-	< 300	< 313	< 288	< 278	-	-	-	-	< 288	< 288
Gasoline	-	NS	NS	< 300	< 300	-	< 300	-	-	-	-	< 300	< 300	-	< 300	< 313	< 288	< 278	-	-	-	-	< 288	431
Motor Oil	-	NS	NS	1,440	1,780	-	461	-	-	-	-	396	482	-	2,050	499	< 288	< 278	-	-	-	-	< 288	365
Total Extractable Petroleum Hydrocarbon	-	NS	NS	2,350	3,670	-	461	-	-	-	-	396	482	-	2,050	499	< 288	< 278	-	-	-	-	< 288	796
Volatile Organic Compounds (ug/L)																								
Tetrachloroethene	127-18-4	**5**	**1,700**	< 1.00	< 1.00	< 1.00	**7.34**	3.8	**9.21**	**7.32**	**10.8**	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
Trichloroethene	79-01-6	**5**	**76**	2.86	< 1.00	< 1.00	**52.3**	**10.5**	**10.9**	**13.8**	**12.7**	< 1.00	1.67	1.36	< 1.00	< 1.00	< 1.00	**672**	**953**	**865**	**1,100**	**853**	< 1.00	< 1.00
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	1.15	1.09	1.11	**116**	**108**	**76.8**	**93.8**	69.9	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	4.34	7.91	8.11	< 10.0	8.78	< 1.00	< 1.00
Vinyl Chloride	75-01-4	**2**	**10**	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
1,1,1-Trichloroethane	71-55-6	**200**	70,000	< 1.00	< 1.00	< 1.00	24.2	22.2	15.4	19.2	10.4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.22	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	79-00-5	**5**	61	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	75-34-3	NS	700	< 1.00	< 1.00	< 1.00	21.8	29.5	18.7	16.7	8.71	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	4.41	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene	75-35-4	**7**	**180**	< 2.00	< 2.00	< 2.00	**7.32**	**7.56**	5.36	5.52	2.49	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	2.64	2.97	< 20.0	< 2.00	< 2.00	< 2.00
1,2,4-Trimethylbenzene	95-63-6	NS	350	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	107-06-2	**5**	38	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
1,3,5-Trimethylbenzene	108-67-8	NS	350	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
2-Butanone	78-93-3	NS	21,000	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	<10.0	< 100	< 10.0	< 10.0	< 10.0
Acetone	67-64-1	NS	32,000	< 10.0	< 10.0	< 10.0	57.1	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	<10.0	< 100	< 10.0	< 10.0	< 10.0
Benzene	71-43-2	**5**	64	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	<0.50	< 0.500	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	<0.50	< 5.00	< 0.50	< 0.50	< 0.50
Carbon Disulfide	75-15-0	NS	3,500	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
Chloroethane	75-00-3	NS	14,000	< 4.00	< 4.00	< 4.00	< 4.00	<4.00	<4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	<4.00	<4.00	< 40.0	< 4.00	< 4.00	< 4.00
Chloroform	67-66-3	**80**	NS	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.86	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	1.33
Chloromethane	74-87-3	NS	NS	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	<3.00	< 30.0	< 3.00	< 3.00	< 3.00
Cymene	99-87-6	NS	NS	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
Ethylbenzene	100-41-4	**700**	3,500	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
Isopropylbenzene	98-82-8	NS	3,500	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
Naphthalene	91-20-3	NS	700	< 5.00	< 5.00	< 5.00	< 5.00	<5.00	<5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	<5.00	<5.00	< 50.0	< 5.00	< 5.00	< 5.00
n-Butylbenzene	104-51-8	NS	1,800	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
n-Propylbenzene	103-65-1	NS	17,000	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
sec-Butylbenzene	135-98-8	NS	NS	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
tert-Butylbenzene	98-06-6	NS	NS	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
Toluene	108-88-3	1,000	5,000	1.21	3.90	3.44	2.03	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	< 1.00	< 1.00	< 1.00	5.21	6.5	4.71	4.99	3.06	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	<1.00	< 10.0	< 1.00	< 1.00	< 1.00
Xylenes, Total	1330-20-7	10,000	50,000	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	<3.00	<3.00	< 30.0	< 3.00	< 3.00	< 3.00
1,4-Dioxane	123-91-1	NS	1,000	NA	NA	NA	NA	216	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																								
pH	-	NS	NS	6.89	6.83	-	7.09	6.2	7.15	7.15	7.04	7.16	7.07	-	7.1	7.91	7.17	7.1	7.07	-	6.97	6.93	7.19	7.15
Specific conductance (mS/cm)	-	NS	NS	0.704	0.938	-	1.255	0.902	0.768	0.87	0.762	1.205	0.963	-	0.699	0.685	0.671	0.819	0.792	-	0.821	0.792	0.673	0.888
Temperature (Degrees Celsius)	-	NS	NS	10.06	12.18	-	12.97	17.26	8.00	15.78	16.90	14.44	12.54	-	10.71	9.49	6.07	11.95	12.06	-	14.11	15.2	12.06	10.83
ORP (millivolts)	-	NS	NS	-11.5	-62	-	NR	73.8	-137.4	206.5	-78	NR	NR	-	NR	26.1	110.1	21.0	11.3	-	12.8	-74	29.3	2.4
DO (mg/L)	-	NS	NS	0.91	0.38	-	4.39	1.96	0.18	2.39	1.08	0.52	0.8	-	2.59	0.64	6.29	0.34	0.38	-	0.42	0.16	0.71	0.5

Notes:
Method OA-2 and SW8260B results are in micrograms per liter (ug/L).
mS/cm = milliSiemens per centimeter
mg/L = milligrams per liter
MCL = Environmental Protection Agency's Maximum Contaminant Level
Bold = Compound exceeds MCL
NS = No standard
NA = Not analyzed
NR = Not recorded
N = normal sample
FD = field duplicate sample
Total Extractable Petroleum Hydrocarbons are a sum of the three petroleum ranges: diesel, gasoline, and motor oil.

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-60		MW-61				MW-62				MW-63					MW-64				
				Mar 2013		Mar 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013		Apr 2014	Jul 2014	Oct 2014	Oct 2013		Apr 2014	Jul 2014	Oct 2014
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N
Extractable Petroleum Hydrocarbons (ug/L)																							
Diesel (C12-C22)	-	NS	NS	< 313	< 288	< 278	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gasoline	-	NS	NS	< 313	360	< 278	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Motor Oil	-	NS	NS	342	< 288	337	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Extractable Petroleum Hydrocarbon	-	NS	NS	342	360	337	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)																							
Tetrachloroethene	127-18-4	**5**	**1,700**	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
Trichloroethene	79-01-6	**5**	**76**	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	1.1	<1.00	<1.00	<1.00	< 1.00	< 1.00	**196**	**175**	**32.9**	< 1.00	< 1.00
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	1.24	1.06	<1.00	< 1.00	< 1.00
Vinyl Chloride	75-01-4	**2**	**10**	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
1,1,1-Trichloroethane	71-55-6	**200**	70,000	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	79-00-5	**5**	61	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
1,1-Dichloroethane	75-34-3	NS	700	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
1,1-Dichloroethene	75-35-4	**7**	**180**	< 2.00	-	< 2.00	<2.00	< 2.00	< 2.00	<2.00	<2.00	< 2.00	< 2.00	<2.00	<2.00	<2.00	< 2.00	< 2.00	<2.00	<2.00	<2.00	< 2.00	< 2.00
1,2,4-Trimethylbenzene	95-63-6	NS	350	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
1,2-Dichloroethane	107-06-2	**5**	38	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
1,3,5-Trimethylbenzene	108-67-8	NS	350	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
2-Butanone	78-93-3	NS	21,000	< 10.0	-	< 10.0	<10.0	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	<10.0	<10.0	<10.0	< 10.0	< 10.0	<10.0	<10.0	<10.0	< 10.0	< 10.0
Acetone	67-64-1	NS	32,000	< 10.0	-	< 10.0	<10.0	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	<10.0	<10.0	<10.0	< 10.0	< 10.0	<10.0	<10.0	<10.0	< 10.0	< 10.0
Benzene	71-43-2	**5**	64	< 0.50	-	< 0.50	<0.50	< 0.500	< 0.50	<0.50	<0.50	< 0.500	< 0.50	<0.50	<0.50	<0.50	< 0.500	< 0.50	<0.50	<0.50	<0.50	< 0.500	< 0.50
Carbon Disulfide	75-15-0	NS	3,500	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	1.05	< 1.00	< 1.00	1.08	1.08	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
Chloroethane	75-00-3	NS	14,000	< 4.00	-	< 4.00	<4.00	< 4.00	< 4.00	<4.00	<4.00	< 4.00	< 4.00	<4.00	<4.00	<4.00	< 4.00	< 4.00	<4.00	<4.00	<4.00	< 4.00	< 4.00
Chloroform	67-66-3	**80**	NS	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
Chloromethane	74-87-3	NS	NS	< 3.00	-	< 3.00	<3.00	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	<3.00	<3.00	<3.00	< 3.00	< 3.00	<3.00	<3.00	<3.00	< 3.00	< 3.00
Cymene	99-87-6	NS	NS	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
Ethylbenzene	100-41-4	**700**	3,500	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
Isopropylbenzene	98-82-8	NS	3,500	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
Naphthalene	91-20-3	NS	700	< 5.00	-	< 5.00	<5.00	< 5.00	< 5.00	<5.00	<5.00	< 5.00	< 5.00	<5.00	<5.00	<5.00	< 5.00	< 5.00	<5.00	<5.00	<5.00	< 5.00	< 5.00
n-Butylbenzene	104-51-8	NS	1,800	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
n-Propylbenzene	103-65-1	NS	17,000	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
sec-Butylbenzene	135-98-8	NS	NS	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
tert-Butylbenzene	98-06-6	NS	NS	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
Toluene	108-88-3	1,000	5,000	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	< 1.00	-	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	< 1.00	< 1.00
Xylenes, Total	1330-20-7	10,000	50,000	< 3.00	-	< 3.00	<3.00	< 3.00	< 3.00	<3.00	<3.00	< 3.00	< 3.00	<3.00	<3.00	<3.00	< 3.00	< 3.00	<3.00	<3.00	<3.00	< 3.00	< 3.00
1,4-Dioxane	123-91-1	NS	1,000	NA	NA	NA	NA	NA	NA	<2.00	NA	NA	NA	<2.00	<2.00	NA	NA	NA	<2.00	<2.00	NA	NA	NA
Field Parameters																							
pH	-	NS	NS	7.22	-	7.83	8.63	7.79	7.24	7.37	7.17	6.69	6.88	7.19	-	6.97	6.8	6.8	6.53	-	7.17	7.14	6.98
Specific conductance (mS/cm)	-	NS	NS	0.809	-	0.547	0.549	0.701	0.821	1.062	0.657	0.757	0.692	1.084	-	1.087	1.073	1.074	0.852	-	0.838	0.871	0.839
Temperature (Degrees Celsius)	-	NS	NS	8.75	-	11.33	12.33	14.74	14.2	12.7	15.64	15.3	13.5	15.86	-	11.89	12.66	12.6	13.04	-	10.38	12.69	14.8
ORP (millivolts)	-	NS	NS	105.5	-	-43.6	34.9	25.8	-97.5	44.4	62.9	-53.9	-115.3	156.3	-	15.6	45.4	-64.7	-27.1	-	63.2	-26.8	-86.9
DO (mg/L)	-	NS	NS	4.75	-	0.66	5.37	0.47	0.2	3.39	1.33	0.64	0.3	7.46	-	0.31	0.3	0.13	0.29	-	1.02	0.31	0.31

Notes:
Method OA-2 and SW8260B results are in micrograms per liter (ug/L).
mS/cm = milliSiemens per centimeter
mg/L = milligrams per liter
MCL = Environmental Protection Agency's Maximum Contaminant Level
Bold = Compound exceeds MCL
Total Extractable Petroleum Hydrocarbons are a sum of the three petroleum ranges: diesel, gasoline, and motor oil.

NS = No standard
NA = Not analyzed
NR = Not recorded
N = normal sample
FD = field duplicate sample

Table 5: Summary of Detected Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

				MW-65										MW-66			MW-67		
				Oct 2013	Apr 2014	Jul 2014	Oct 2014		Dec 2014		Mar 2015		Jul 2016	Nov 2015	Jul 2016		Nov 2015		Jul 2016
Analyte	**CAS-RN**	**MCL**	**Iowa DNR**	N	N	N	N	FD	N	FD	N	FD	N	N	N	FD	N	FD	N
Extractable Petroleum Hydrocarbons (ug/L)																			
Diesel (C12-C22)	-	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gasoline	-	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Motor Oil	-	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Extractable Petroleum Hydrocarbon	-	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/L)																			
Tetrachloroethene	127-18-4	**5**	**1,700**	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
Trichloroethene	79-01-6	**5**	**76**	<1.00	2.42	**44.7**	**826**	**799**	**1,730**	**1,530**	**2,370**	**2,360**	**2,420**	3.94	**6.38**	**5.79**	< 1.00	< 1.00	<1.00
cis-1,2-Dichloroethene	156-59-2	**70**	**350**	<1.00	1.27	2.17	17.1	14.5	22.9	20.8	29.7	28.1	61.3	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
Vinyl Chloride	75-01-4	**2**	**10**	<1.00	<1.00	< 1.00	< 1.00	< 1.00	1.41	1.32	1.89	1.9	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
1,1,1-Trichloroethane	71-55-6	**200**	70,000	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
1,1,2-Trichloroethane	79-00-5	**5**	61	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
1,1-Dichloroethane	75-34-3	NS	700	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
1,1-Dichloroethene	75-35-4	**7**	**180**	<2.00	<2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	<2.00	< 2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,2,4-Trimethylbenzene	95-63-6	NS	350	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
1,2-Dichloroethane	107-06-2	**5**	38	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
1,3,5-Trimethylbenzene	108-67-8	NS	350	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
2-Butanone	78-93-3	NS	21,000	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	<10.0
Acetone	67-64-1	NS	32,000	<10.0	<10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	<10.0	<10.0	< 10.0	< 10.0	<10.0
Benzene	71-43-2	**5**	64	<0.50	<0.50	< 0.500	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.736	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50
Carbon Disulfide	75-15-0	NS	3,500	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
Chloroethane	75-00-3	NS	14,000	<4.00	<4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	<4.00	<4.00	< 4.00	< 4.00	<4.00
Chloroform	67-66-3	**80**	NS	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	2.16	2.05	<1.00
Chloromethane	74-87-3	NS	NS	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Cymene	99-87-6	NS	NS	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00
Ethylbenzene	100-41-4	**700**	3,500	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
Isopropylbenzene	98-82-8	NS	3,500	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
Naphthalene	91-20-3	NS	700	<5.00	<5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
n-Butylbenzene	104-51-8	NS	1,800	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
n-Propylbenzene	103-65-1	NS	17,000	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
sec-Butylbenzene	135-98-8	NS	NS	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
tert-Butylbenzene	98-06-6	NS	NS	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
Toluene	108-88-3	1,000	5,000	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	<1.00	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
trans-1,2-Dichloroethene	156-60-5	**100**	**700**	<1.00	<1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.99	< 1.00	<1.00	<1.00	< 1.00	< 1.00	<1.00
Xylenes, Total	1330-20-7	10,000	50,000	<3.00	<3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
1,4-Dioxane	123-91-1	NS	1,000	<2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																			
pH	-	NS	NS	7.15	6.98	6.92	7.02	-	7.20	-	6.69	-	6.87	6.58	6.79	-	7.11	-	6.88
Specific conductance (mS/cm)	-	NS	NS	1.288	0.777	0.912	0.94	-	0.951	-	0.998	-	0.955	0.755	0.845	-	0.891	-	0.96
Temperature (Degrees Celsius)	-	NS	NS	16.27	15.9	17.73	16.3	-	5.63	-	3.58	-	19.71	12.13	13.91	-	12.56	-	13.81
ORP (millivolts)	-	NS	NS	-50.1	-212.4	-65.5	-67.2	-	-4	-	-67	-	-32.8	-92.3	62.7	-	-287	-	4.4
DO (mg/L)	-	NS	NS	2.47	0.23	1.57	NA	-	0.0	-	0.0	-	0.63	3.46	0.58	-	4.71	-	0.47

Prepared by: TG B
Checked by: JMR
Reviewed by: APTM

Table 6: Summary of EPH/VPH Constituents in Groundwater
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Analyte	MCP GW-1	MCL	MW-21	MW-35	MW-36S	MW-51	MW-52	
			12/12/2012	12/12/2012	12/12/2012	12/12/2012	12/12/2012	
			N	N	N	N	N	FD
EPH								
2-Methylnaphthalene	10	NS	<10	<10	<11	<10	<10	<10
Acenaphthene	20	NS	<10	<10	<11	<10	<10	<10
Acenaphthylene	30	NS	<10	<10	11	<10	<10	<10
Anthracene	60	NS	<10	<10	<11	<10	<10	<10
Benzo[a]anthracene	1	NS	**<10**	**<10**	**<11**	**<10**	**<10**	**<10**
Benzo[a]pyrene	0.2	0.2	**<10**	**<10**	**<11**	**<10**	**<10**	**<10**
Benzo[b]fluoranthene	1	NS	**<10**	**<10**	**<11**	**<10**	**<10**	**<10**
Benzo[g,h,i]perylene	50	NS	<10	<10	<11	<10	<10	<10
Benzo[k]fluoranthene	1	NS	**<10**	**<10**	**<11**	**<10**	**<10**	**<10**
C11-C22 Aromatics (Adjusted)	200	NS	**1200**	110	<100	<100	<100	<100
C11-C22 Aromatics (Unadjusted)	200	NS	**1200**	140	<110	<100	<100	<100
C19-C36 Aliphatics (Unadjusted)	14,000	NS	5000	1500	<110	240	180	150
C9-C18 Aliphatics (Unadjusted)	700	NS	**1300**	330	<110	<100	<100	<100
Chrysene	2	NS	<10	<10	<11	<10	<10	<10
Dibenzo[a,h]anthracene	0.5	NS	**<10**	**<10**	**<11**	**<10**	**<10**	**<10**
Fluoranthene	90	NS	<10	<10	<11	<10	<10	<10
Fluorene	30	NS	<10	<10	<11	<10	<10	<10
Indeno[1,2,3-cd]pyrene	0.5	NS	**<10**	**<10**	**<11**	**<10**	**<10**	**<10**
Naphthalene	140	NS	26	29	<11	17	<10	<10
Phenanthrene	40	NS	<10	<10	<11	<10	<10	<10
Pyrene	80	NS	11	<10	<11	<10	<10	<10
VPH								
Benzene	5	5	**<50**	**<50**	**<10**	**<5**	**<10**	**<10**
C5-C8 Aliphatics (Adjusted)	300	NS	<10	<10	<10	<10	<10	<10
C5-C8 Aliphatics (Unadjusted)	300	NS	**<500**	**<500**	<100	<50	<100	<100
C9-C10 Aromatics (Unadjusted)	200	NS	**760**	**790**	140	<50	<100	<100
C9-C12 Aliphatics (Adjusted)	700	NS	<10	<10	<10	<10	<10	<10
C9-C12 Aliphatics (Unadjusted)	700	NS	<500	<500	<100	<50	<100	<100
Ethylbenzene	700	700	<50	<50	<10	<5	<10	<10
m,p-Xylenes	10,000	10,000	<100	<100	<20	<10	<20	<20
Methyl tert-Butyl Ether	70	NS	<50	<50	<10	<5	<10	<10
Naphthalene	140	NS	<50	<50	<10	<5	<10	<10
o-Xylene	10,000	10,000	60	69	14	<5	<10	<10
Toluene	1,000	1,000	<50	<50	19	<5	<10	<10

Notes:
EPH = Extractable Petroleum Hydrocarbons
VPH = Volatile Petroleum Hydrocarbons
All values in micrograms per liter (ug/L)
N = normal sample
FD = field duplicate sample
NS = No standard
MCL = Environmental Protection Agency's Maximum Contaminant Level
MCP GW-1 = Massachusetts Contingency Plan's Method 1 Groundwater Standard

Bold = Compound exceeds MCL and/or MCP GW-1

Prepared by: ATK
Checked by: JSP
Reviewed by: APTM

Table 7: Monitored Natural Attenuation Analytical Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

	MW-08			MW-15					MW-19				MW-24				MW-25D					MW-25S			
Analyte	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014		Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014		Oct 2013	Apr 2014	Jul 2014	Oct 2014
	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Metals (mg/L)																									
Iron	<0.1	<0.1	<0.1	<0.1	0.106	0.196	0.192	0.144	0.974	0.412	<0.1	0.277	NA	<0.1	<0.1	0.279	0.346	0.167	0.116	<0.1	<0.1	NA	23.5	2.28	2.71
Manganese	<0.01	0.0155	0.0541	0.0769	0.0123	0.0221	0.016	0.0248	0.0751	0.051	0.0134	0.0312	NA	0.0982	0.441	0.28	0.256	0.111	0.208	0.164	0.189	NA	1.22	0.837	0.206
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Natural Attenuation Parameters (mg/L)																									
Alkalinity, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite as N	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.497	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate as N	<0.1	<0.1	<0.1	<0.1	3.71	4.42	4.2	1.64	<0.1	<0.1	<0.1	<0.1	0.418	0.12	0.102	0.875	1.59	0.572	0.115	0.15	0.21	<0.1	<0.1	<0.1	0.123
Sulfate	47.4	59.1	33.4	21.5	22.7	33.4	34	21.8	83.9	58.8	70.5	53.9	104	101	94	8.67	34.8	26.4	25.4	29.2	29.9	<5	<5	<5	<5
Chloride	88.2	116	62.8	NA	24.7	23.9	23.8	19.8	NA	15.4	23.7	16.8	NA	30.2	26.9	5.3	NA	<5	5.15	5.49	5.79	NA	146	142	69.5
Total Organic Carbon	3.09	3.54	2.84	5.15	6.36	6.24	6.16	6.14	6.96	3.35	3.92	3.43	NA	1.55	1.54	4.05	2	1.52	1.61	2.42	1.77	NA	420	518	50.7
Dissolved Gases (ug/L)																									
Methane	0.88	3.2	3.3	3.1	2.4	2.1	2	2.1	1.3	5.2	0.41	0.5	9.6	1.8	96	0.3	1,100	0.7	4.4	12	10	1,100	2,900	660	2,400
Ethane	0.044	<0.025	<0.025	0.027	<0.025	<0.025	<0.025	<0.025	44	1.2	4	2.6	0.031	0.028	0.053	<0.025	0.077	<0.025	<0.025	<0.025	<0.025	0.42	0.56	0.23	0.42
Ethene	0.18	0.76	<0.025	0.12	0.057	0.14	0.055	0.064	41	0.086	4.4	2.4	0.073	0.043	0.059	0.12	0.16	0.033	0.044	0.16	0.16	470	1,200	310	980
Field Parameters																									
pH	7.51	7.31	6.89	6.67	7.28	7.21	-	7.06	7.48	7.42	7.14	7.01	6.96	6.99	6.94	6.92	6.97	7.25	7.14	7.05	-	6.93	7	6.78	6.85
Specific conductance (mS/cm)	0.703	1.159	1.154	0.757	0.712	0.912	-	0.802	0.734	0.578	0.644	0.672	0.973	0.866	0.95	0.916	0.892	0.832	0.864	0.84	-	1.809	1.997	1.961	2.076
Temperature (Degrees Celsius)	9.46	19.15	16.1	18.97	8.47	16.67	-	16.6	18.72	8.29	17.29	19	20.91	14.18	18.34	19.1	19.69	11.82	20.07	19.3	-	21.79	10.86	17.96	19.9
ORP (millivolts)	142.9	60.9	-173.2	-63.4	201.4	44.6	-	-141.1	-44	19	-77.5	-122	-20.6	162.1	40.3	-112.8	-32.4	51.7	52.3	-108.1	-	-110.1	-124.6	-87.3	-143.7
DO (mg/L)	5.87	0.27	0.16	0.43	4.63	5.84	-	0.48	1.66	2.7	1.48	0.51	0.52	2.81	1.9	2.33	0.18	1.78	0.57	0.21	-	0.29	0.41	0.57	0.13

	MW-26D				MW-26S				MW-28				MW-29				MW-31				MW-43D			
Analyte	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014
	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Metals (mg/L)																								
Iron	NA	<0.1	<0.1	<0.1	NA	0.127	0.107	<0.1	0.442	1.22	<0.5	0.918	2.23	0.193	NA	0.13	NA	0.143	<0.1	0.213	<0.1	0.255	<0.1	<0.1
Manganese	NA	0.172	0.0885	0.195	NA	0.0247	0.0473	0.0285	0.989	1.04	0.982	0.796	0.313	0.182	NA	0.227	NA	0.0868	0.0975	0.248	1.19	0.454	0.21	0.862
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Natural Attenuation Parameters (mg/L)																								
Alkalinity, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite as N	<0.1	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate as N	<0.1	1.78	0.425	0.168	NA	1.16	1.28	1.66	<0.1	<0.1	<0.1	<0.1	<0.1	0.177	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	0.403	0.288	<0.1
Sulfate	41.2	36.4	43.2	38.6	NA	50.2	48	46.5	47.9	43.1	40.6	32.5	128	139	188	140	NA	177	178	136	26.3	20.1	21.1	15.2
Chloride	NA	9.61	11	11.6	NA	60.6	63.3	61.1	NA	217	213	165	NA	48.5	72	54	NA	44	43.8	34.5	NA	11	12.3	10.9
Total Organic Carbon	NA	1.48	1.75	1.22	NA	2.42	2.19	2.34	28.8	30.1	<80.0	36.6	7.75	4.9	NA	3.34	NA	2.13	2.01	2.59	2.63	2.25	1.9	1.89
Dissolved Gases (ug/L)																								
Methane	9.9	0.57	42	10	1.6	5.6	3.4	2.1	1,800	2,100	2,000	1,200	0.51	0.71	0.5	0.38	110	24	44	5.7	2.9	2.5	0.59	3.8
Ethane	0.21	0.11	0.092	0.12	0.96	0.33	1	0.58	1.1	0.75	1	0.78	0.41	0.64	0.49	0.2	3.6	1.3	1.6	0.55	0.32	0.24	0.032	0.47
Ethene	0.14	0.062	0.054	0.22	0.94	0.06	0.94	0.3	1,700	1,600	1,400	1,500	1.8	0.56	2.1	1.6	0.86	0.034	0.098	0.095	4.3	0.3	0.033	0.14
Field Parameters																								
pH	7.08	7.07	6.95	6.92	7.28	7.24	7.15	7.05	6.91	6.85	6.96	6.72	7.41	7.22	6.95	6.78	7.07	7.17	7.29	7.14	7.06	7.34	6.92	7.03
Specific conductance (mS/cm)	0.835	0.813	0.798	0.86	0.889	0.873	0.966	0.92	1.537	1.477	1.457	1.46	0.612	0.882	1.134	1.07	1.121	1.097	1.091	1.022	0.782	0.715	0.721	0.741
Temperature (Degrees Celsius)	19.63	11.72	20.6	18.6	22.29	10.82	21.59	19.7	21.78	10.74	19.11	19.5	18.46	10.61	15.92	16.8	20.19	9.37	20.49	16.2	15.07	12.25	13.86	14.2
ORP (millivolts)	-46.1	39.1	51.4	-72.7	-43	49.5	147.6	-122.7	-83.8	30.3	-59.2	-100.6	-64	74.2	-4.2	-103	0.4	-24.8	123	-83	-76	56.2	191.5	-81.4
DO (mg/L)	0.57	2.47	1.46	1.1	0.61	3.27	2.12	1.66	0.21	0.38	0.28	0.35	1.27	4.65	0.84	2.17	0.48	2.3	2.31	2.78	0.26	2.35	0.72	0.24

Notes:
ug/L = micrograms per liter
mg/L = milligrams per liter
mS/cm = millisiemens per centimeter
NA = Not analyzed
N = normal sample
FD = field duplicate sample

Table 7: Monitored Natural Attenuation Analytical Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

	MW-46				MW-47D						
Analyte	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014		Jul 2014	Oct 2014	Dec 2014	Mar 2015
	N	N	N	N	N	N	FD	N	N	N	N
Metals (mg/L)											
Iron	0.391	0.21	0.136	0.234	0.474	0.613	1.7	0.82	1.32	1.43	2.04
Manganese	0.653	0.643	0.79	0.772	0.705	0.729	0.747	0.697	0.692	0.723	0.718
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	163	164
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.2	52.8
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.01	4.9
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	27.8	25.1
Natural Attenuation Parameters (mg/L)											
Alkalinity, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	416	454
Nitrite as N	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.100
Nitrate as N	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.100
Sulfate	22.8	27.7	25.4	22	16.3	25.4	25	19.8	13.1	12.5	9.86
Chloride		<5	<5	<5	NA	144	143	144	147	203	155
Total Organic Carbon	1.82	2.08	1.42	1.69	2.12	2.42	2.52	2.67	2.03	2.03	2.05
Dissolved Gases (ug/L)											
Methane	20	12	7.1	7.1	98	160	160	140	180	NA	NA
Ethane	2.2	1.1	0.73	1.4	3.4	2.7	2.9	2.3	2.8	NA	NA
Ethene	2.5	0.48	0.45	0.88	140	270	280	220	280	NA	NA
Field Parameters											
pH	6.81	7.11	6.93	6.93	7.06	6.98	-	7.02	6.89	7.25	6.74
Specific conductance (mS/cm)	0.719	0.692	0.762	0.77	1.462	1.238	-	1.119	1.33	1.34	1.31
Temperature (Degrees Celsius	17.2	12.6	14.98	15.3	19.58	13.62	-	19.04	16.8	12.47	12.38
ORP (millivolts)	-94.5	-3.1	-24.4	-79.2	-25.7	-26.3	-	50.4	-122.9	-26	-41
DO (mg/L)	0.2	0.02	0.33	0.14	0.24	0.4	-	0.32	0.17	0.0	0.0

	MW-53				MW-57				MW-61			MW-62				MW-63				
Analyte	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Apr 2014		Jul 2014	Oct 2014	Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014	Oct 2013		Apr 2014	Jul 2014	Oct 2014
	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Metals (mg/L)																				
Iron	NA	0.176	<0.1	<0.1	0.217	0.202	0.175	0.368	<0.1	<0.1	0.113	18.8	1.5	1.31	1.05	<0.1	<0.1	0.181	0.102	0.105
Manganese	NA	0.206	0.0105	<0.01	0.701	0.648	0.686	0.616	<0.01	0.04	0.116	1.84	0.476	0.495	0.483	1.13	1.14	1.58	1.42	1.43
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Natural Attenuation Parameters (mg/L)																				
Alkalinity, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite as N	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate as N	0.472	<0.1	0.172	0.308	<0.1	<0.1	<0.1	<0.1	0.397	0.251	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	39.4	32	36	28	54.4	55.1	55.6	47	73.3	65.2	40.7	42.5	32.7	25.4	17.4	160	161	157	158	115
Chloride	NA	34.3	33.3	22.2	15.1	15	15.6	14.6	<5	<5	<5	NA	3.52	<5	<5	NA	NA	<5	<5	7.92
Total Organic Carbon	NA	6.84	4.5	4.91	1.89	2.12	1.76	2.07	6.11	2.98	2.51	5.58	2.71	2.47	14.3	2.49	2.45	1.25	1.12	16.9
Dissolved Gases (ug/L)																				
Methane	0.63	9.4	0.61	0.27	2	2	1.6	2	0.41	1.5	6.5	91	580	490	510	1.9	3.9	2.2	2.8	2.2
Ethane	0.14	0.32	<0.025	<0.025	0.098	0.033	0.025	0.044	0.48	0.57	0.76	0.33	0.34	0.15	0.1	0.26	0.27	0.11	0.16	0.12
Ethene	0.21	0.61	0.14	0.026	0.11	0.12	0.091	0.17	0.08	0.26	0.64	0.44	0.99	1	0.89	0.28	0.24	0.12	0.048	0.12
Field Parameters																				
pH	6.2	7.15	7.15	7.04	7.07	-	6.97	6.93	8.63	7.79	7.24	7.37	7.17	6.69	6.88	7.19	-	6.97	6.8	6.8
Specific conductance (mS/cm)	0.902	0.768	0.87	0.762	0.792	-	0.821	0.792	0.549	0.701	0.821	1.062	0.657	0.757	0.692	1.084	-	1.087	1.073	1.074
Temperature (Degrees Celsius	17.26	8	15.78	16.9	12.06	-	14.11	15.2	12.33	14.74	14.2	12.7	15.64	15.3	13.5	15.86	-	11.89	12.66	12.6
ORP (millivolts)	73.8	-137.4	206.5	-78	11.3	-	12.8	-74	34.9	25.8	-97.5	44.4	62.9	-53.9	-115.3	156.3	-	15.6	45.4	-64.7
DO (mg/L)	1.96	0.18	2.39	1.08	0.38	-	0.42	0.16	5.37	0.47	0.2	3.39	1.33	0.64	0.3	7.46	-	0.31	0.3	0.13

	MW-64					MW-65								
Analyte	Oct 2013		Apr 2014	Jul 2014	Oct 2014	Oct 2013	Apr 2014	Jul 2014	Oct 2014		Dec 2014		Mar 2015	
	N	FD	N	N	N	N	N	N	N	FD	N	FD	N	FD
Metals (mg/L)														
Iron	<0.1	<0.1	0.159	0.469	1.77	24.3	1.76	1.67	3.06	2.92	4.91	4.91	4.53	4.15
Manganese	0.408	0.4	0.516	0.383	0.399	1.61	0.378	0.352	0.369	0.349	0.345	0.335	0.345	0.328
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	131	131	133	129
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.6	30.7	33.2	31.6
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.21	3.06	2.21	2.09
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	47.2	45.6	48.9	46.5
Natural Attenuation Parameters (mg/L)														
Alkalinity, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	530	539	585	579
Nitrite as N	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.208	<0.1	<0.1	<0.1	<0.1	<0.100	<0.100
Nitrate as N	<0.1	<0.1	0.249	<0.1	<0.1	<0.1	<0.1	0.219	<0.1	<0.1	<0.1	<0.1	<0.100	<0.100
Sulfate	61.5	60.4	77.6	94	62.5	8.24	2.16	<5	1.98	1.88	1.98	2.01	1.65	1.69
Chloride	NA	NA	12.6	26.2	14.9	NA	3.18	7.33	3.02	2.23	2.26	2.38	2.32	2.26
Total Organic Carbon	2.71	2.5	1.88	1.71	1.96	4.36	4.1	3.47	3.92	3.96	4.46	4.41	3.81	3.83
Dissolved Gases (ug/L)														
Methane	4.1	5	2.2	2.1	1.4	91	110	84	36	44	NA	NA	NA	NA
Ethane	0.95	0.95	0.1	0.093	0.044	0.6	0.38	0.18	0.1	0.12	NA	NA	NA	NA
Ethene	0.96	0.97	0.044	0.055	0.12	0.42	3	0.25	0.29	0.34	NA	NA	NA	NA
Field Parameters														
pH	6.53	-	7.17	7.14	6.98	7.15	6.98	6.92	7.02	-	7.2	-	6.69	-
Specific conductance (mS/cm)	0.852	-	0.838	0.871	0.839	1.288	0.777	0.912	0.94	-	0.951	-	0.998	-
Temperature (Degrees Celsius	13.04	-	10.38	12.69	14.8	16.27	15.9	17.73	16.3	-	5.63	-	3.58	-
ORP (millivolts)	-27.1	-	63.2	-26.8	-86.9	-50.1	-212.4	-65.5	-67.2	-	-4	-	-67	-
DO (mg/L)	0.29	-	1.02	0.31	0.31	2.47	0.23	1.57	5.96	-	0.0	-	0.0	-

Notes:
ug/L = micrograms per liter
mg/L = milligrams per liter
mS/cm = millisiemens per centimeter
NA = Not analyzed
N = normal sample
FD = field duplicate sample

Prepared by: ATK
Checked by: JMR
Reviewed by: APTM

Golder Associates

Table 8: Summary of Evidence of Natural Degradation of CVOCs
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Well Information				Chlorinated VOCs (ug/L)					Dissolved Gases (ug/L)			Field Parameters	
Well	Date	Well depth (ft-bgs)	Unit Screened	Trichloroethene	cis-1,2-Dichloroethene	1,2-Dichloroethane	1,1,1-Trichloroethane	Vinyl Chloride	Methane	Ethene	Ethane	ORP (millivolts)	DO (mg/L)
MW-8	Apr-14	10	Oxidized Till	<1.00	<1.00	<1.00	<1.00	<1.00	0.88	0.18	0.044	142.9	5.87
	Jul-14			<1.00	<1.00	<1.00	<1.00	<1.00	3.2	0.76	<0.025	60.9	0.27
	Oct-14			<1.00	<1.00	<1.00	<1.00	<1.00	3.3	<0.025	<0.025	-173.2	0.16
MW-15	Apr-14	13	Oxidized Till	49.6	4.89	<1.00	<1.00	<1.00	2.4	0.057	<0.025	201.4	4.63
	Jul-14			59	11	<1.00	<1.00	<1.00	2.1	0.14	<0.025	44.6	5.84
	Oct-14			97.6	19.2	<1.00	<1.00	<1.00	2.1	0.064	<0.025	-141.1	0.48
MW-19	Apr-14	12	Oxidized Till	614,000	4,750	<2000	13,400	<2000	5.2	0.086	1.2	19	2.70
	Jul-14			124,000	372	<100	3,510	<100	0.41	4.4	4.0	-77.5	1.48
	Oct-14			26,300	637	<100	660	<100	0.5	2.4	2.6	-122	0.51
MW-24	Apr-14	18	Oxidized Till	<1.00	<1.00	<1.00	<1.00	<1.00	1.8	0.043	0.028	162.1	2.81
	Jul-14			2.43	<1.00	<1.00	<1.00	<1.00	96	0.059	0.053	40.3	1.90
	Oct-14			64.1	4.79	<1.00	<1.00	<1.00	0.3	0.12	<0.025	-112.8	2.33
MW-25D	Apr-14	29	Unoxidized Till	5.08	<1.00	<1.00	<1.00	<1.00	0.7	0.033	<0.025	51.7	1.78
	Jul-14			10.2	<1.00	<1.00	<1.00	<1.00	4.4	0.044	<0.025	52.3	0.57
	Oct-14			9.1	<1.00	<1.00	<1.00	<1.00	12	0.16	<0.025	-108.1	0.21
MW-25S	Apr-14	18	Oxidized Till	1,320	45,900	<10	<10	6,060	2,900	1,200	0.56	-124.6	0.41
	Jul-14			<100	33,400	<100	<100	3,030	660	310	0.23	-87.3	0.57
	Oct-14			<100	30,400	<100	<100	2,890	2,400	980	0.42	-143.7	0.13
MW-26D	Apr-14	25	Unoxidized Till	123	6.68	<1.00	<1.00	<1.00	0.57	0.062	0.11	39.1	2.47
	Jul-14			51.5	13.7	<1.00	<1.00	<1.00	42	0.054	0.092	51.4	1.46
	Oct-14			133	12	<1.00	<1.00	<1.00	10	0.22	0.12	-72.7	1.10
MW-26S	Apr-14	16	Oxidized Till	43,200	518	<1.00	<1.00	<1.00	5.6	0.06	0.33	49.5	3.27
	Jul-14			67,200	792	<100	<100	<100	3.4	0.94	1.0	147.6	2.12
	Oct-14			56,000	959	<100	<100	<100	2.1	0.3	0.58	-122.7	1.66
MW-28	Apr-14	18	Unoxidized Till	48,600	102,000	2.1	<1.00	10,500	2,100	1,600	0.75	30.3	0.38
	Jul-14			31,300	85,500	<100	<100	7,620	2,000	1,400	1.0	-59.2	0.28
	Oct-14			32,700	66,600	<100	<100	8,540	1,200	1,500	0.78	-100.6	0.35
MW-29	Apr-14	21	Unoxidized Till	70,500	745	11.5	16.6	9.95	0.71	0.56	0.64	74.2	4.65
	Jul-14			98,000	759	<100	<100	<100	0.5	2.1	0.49	-4.2	0.84
	Oct-14			63,000	989	<100	<100	<100	0.38	1.6	0.2	-103	2.17
MW-31	Apr-14	18	Unoxidized Till	5,580	12,600	<100	<100	<100	24	0.034	1.3	-24.8	2.30
	Jul-14			2,710	6,780	<100	<100	<100	44	0.098	1.6	123	2.31
	Oct-14			4,130	9,720	<100	<100	<100	5.7	0.095	0.55	-83	2.78

Table 8: Summary of Evidence of Natural Degradation of CVOCs
Former Electrolux Manufacturing Facility
Jefferson, Iowa

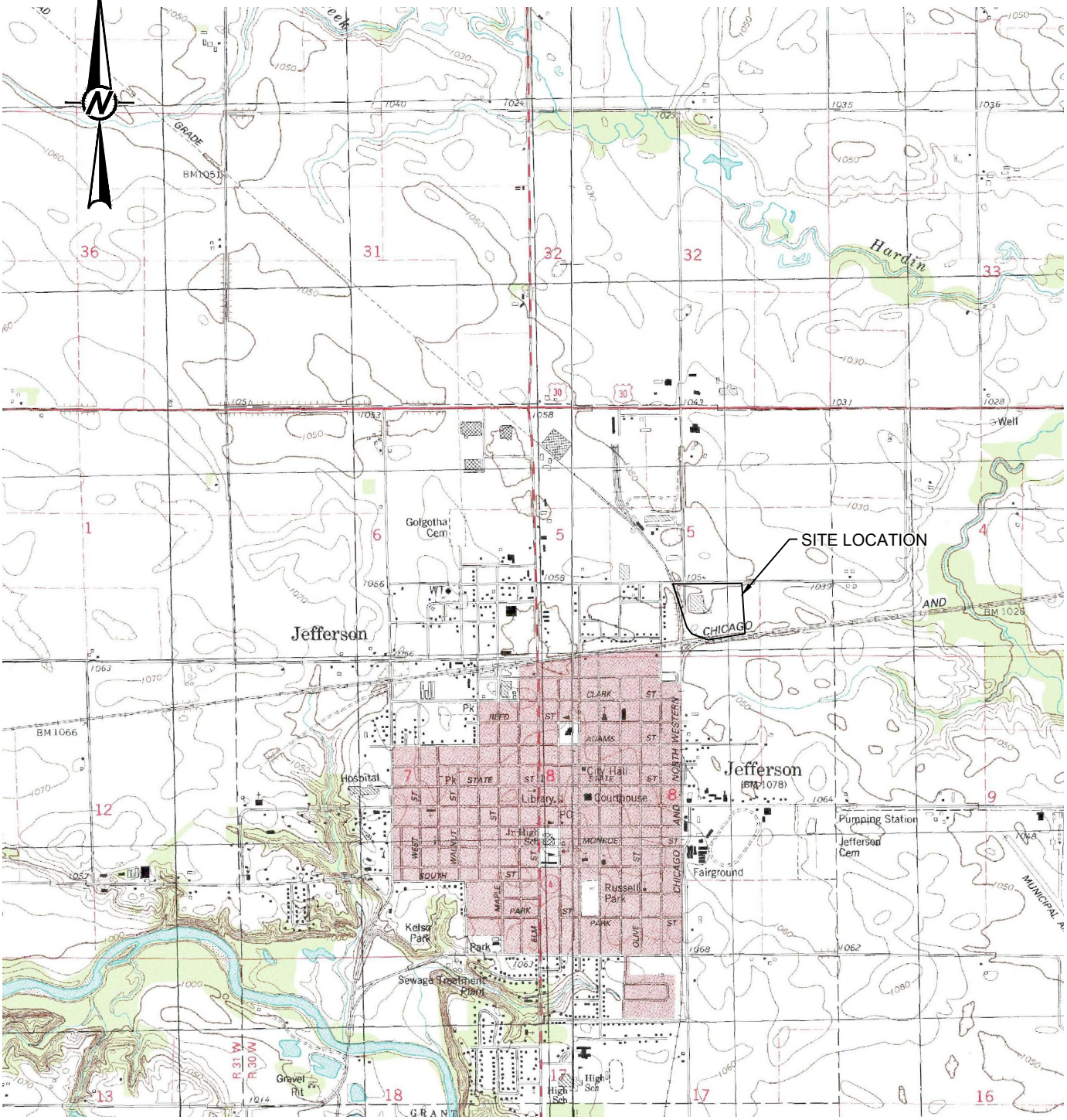
Well Information				Chlorinated VOCs (ug/L)					Dissolved Gases (ug/L)			Field Parameters	
Well	Date	Well depth (ft-bgs)	Unit Screened	Trichloroethene	cis-1,2-Dichloroethene	1,2-Dichloroethane	1,1,1-Trichloroethane	Vinyl Chloride	Methane	Ethene	Ethane	ORP (millivolts)	DO (mg/L)
MW-43D	Apr-14	41	Yellow-Brown Till	<1.00	<1.00	<1.00	<1.00	<1.00	2.5	0.3	0.24	56.2	2.35
	Jul-14			<1.00	<1.00	<1.00	<1.00	<1.00	0.59	0.033	0.032	191.5	0.72
	Oct-14			<1.00	<1.00	<1.00	<1.00	<1.00	3.8	0.14	0.47	-81.4	0.24
MW-46	Apr-14	41	Yellow-Brown Till	1,640	424	<1.00	<1.00	<1.00	12	0.48	1.1	-3.1	0.02
	Jul-14			21,000	359	<10.0	<10.0	<10.0	7.1	0.45	0.73	-24.4	0.33
	Oct-14			14,700	883	<100	<100	<100	7.1	0.88	1.4	-79.2	0.14
MW-47D	Apr-14	42	Yellow-Brown Till	43,200	19,500	<1.00	<1.00	388	160	270	2.7	-26.3	0.40
	Jul-14			25,300	20,900	<100	<100	492	140	220	2.3	50.4	0.32
	Oct-14			26,700	28,800	<1.00	<1.00	567	180	280	2.8	-122.9	0.17
	Dec-14			25,500	35,700	<100	<100	503	NA	NA	NA	-26	0.00
	Mar-15			28,800	37,000	<1.00	<1.00	491	NA	NA	NA	-41	0.00
MW-53	Apr-14	12	Oxidized Till	10.9	76.8	<1.00	15.4	<1.00	9.4	0.61	0.32	-137.4	0.18
	Jul-14			13.8	93.8	<1.00	19.2	<1.00	0.61	0.14	<0.025	206.5	2.39
	Oct-14			12.7	69.9	<1.00	10.4	<1.00	0.27	0.026	<0.025	-78	1.08
MW-57	Apr-14	37	Yellow-Brown Till	953	7.91	<1.00	<1.00	<1.00	2.0	0.11	0.098	11.3	0.38
	Jul-14			1,100	<10.0	<10.0	<10.0	<10.0	1.6	0.091	0.025	12.8	0.42
	Oct-14			853	8.78	<1.00	<1.00	<1.00	2.0	0.17	0.044	-74	0.16
MW-61	Apr-14	39	Yellow-Brown Till	<1.00	<1.00	<1.00	<1.00	<1.00	0.41	0.08	0.48	34.9	5.37
	Jul-14			<1.00	<1.00	<1.00	<1.00	<1.00	1.5	0.26	0.57	25.8	0.47
	Oct-14			<1.00	<1.00	<1.00	<1.00	<1.00	6.5	0.64	0.76	-97.5	0.20
MW-62	Apr-14	72	Dark Gray Till	<1.00	<1.00	<1.00	<1.00	<1.00	580	0.99	0.34	62.9	1.33
	Jul-14			<1.00	<1.00	<1.00	<1.00	<1.00	490	1.0	0.15	-53.9	0.64
	Oct-14			1.1	<1.00	<1.00	<1.00	<1.00	510	0.89	0.1	-115.3	0.30
MW-63	Apr-14	72	Dark Gray Till	<1.00	<1.00	<1.00	<1.00	<1.00	2.2	0.12	0.11	15.6	0.31
	Jul-14			<1.00	<1.00	<1.00	<1.00	<1.00	2.8	0.048	0.16	45.4	0.30
	Oct-14			<1.00	<1.00	<1.00	<1.00	<1.00	2.2	0.12	0.12	-64.7	0.13
MW-64	Apr-14	38	Yellow-Brown Till	32.9	<1.00	<1.00	<1.00	<1.00	2.2	0.044	0.1	63.2	1.02
	Jul-14			<1.00	<1.00	<1.00	<1.00	<1.00	2.1	0.055	0.093	-26.8	0.31
	Oct-14			<1.00	<1.00	<1.00	<1.00	<1.00	1.4	0.12	0.044	-86.9	0.31
MW-65	Apr-14	73	Dark Gray Till	2.42	1.27	<1.00	<1.00	<1.00	110	3.0	0.38	-212.4	0.23
	Jul-14			44.7	2.17	<1.00	<1.00	<1.00	84	0.25	0.18	-65.5	1.57
	Oct-14			826	17.1	<1.00	<1.00	<1.00	36	0.29	0.1	-67.2	NA
	Dec-14			1,730	22.9	<1.00	<1.00	1.41	NA	NA	NA	-4	0.00
	Mar-15			2,370	29.7	<1.00	<1.00	1.89	NA	NA	NA	-67	0.00
	Jul-16			2,420	61.3	<1.00	<1.00	<1.00	NA	NA	NA	-32.8	0.63
MW-66	Nov-15	55	Yellow-Brown Till	3.94	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	-92.3	3.46
	Jul-16			6.38	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	62.7	0.58
MW-67	Nov-15	97	Pleistocene	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	-286.5	4.71
	Jul-16			<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	4.4	0.47

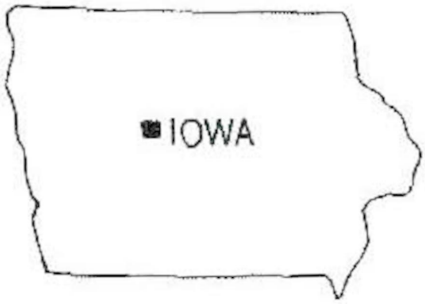
Notes:
ug/L = micrograms per liter
mg/L = milligrams per liter
VOCs = Volatile Organic Compounds
ft-bgs = feet below ground surface

Notes:
ug/L = micrograms per liter
mg/L = milligrams per liter
VOCs = Volatile Organic Compounds
ft-bgs = feet below ground surface

Prepared by: TGB
Checked by: JMR
Reviewed by: APTM

FIGURES





0 1/4 1/2 3/4
SCALE MILE

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE

SITE LOCATION MAP

PROJECT No.		103-87305	FILE No.	10387305M001
DESIGN	JSP	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	1
CHECK	ATK	2016-10-17		
REVIEW	APTM	2016-10-17		

Golder Associates

REFERENCE

Base maps taken from U.S.G.S map titled, "East Jefferson, Iowa" and "West Jefferson, Iowa", dated 1986.

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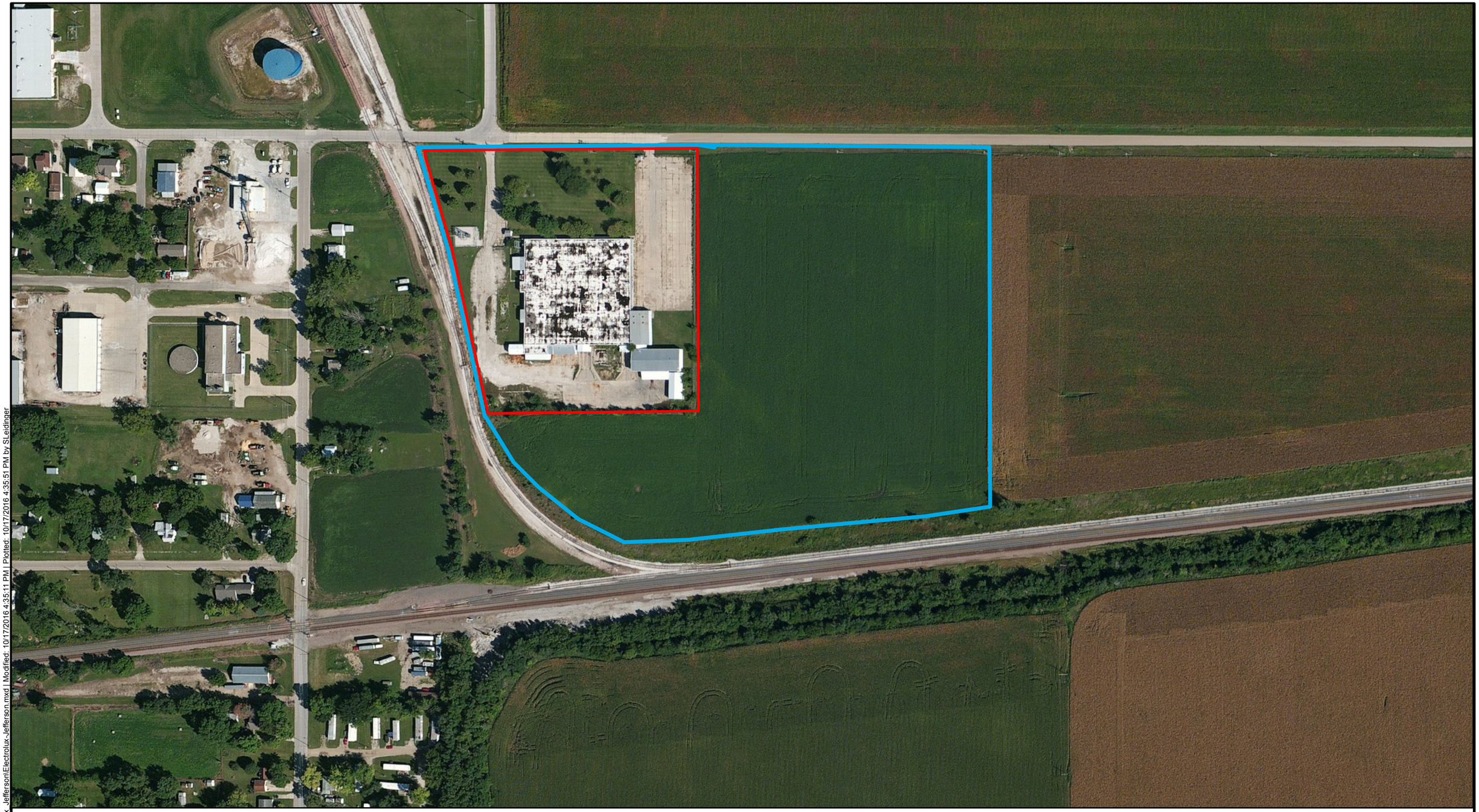


LEGEND

- Approximate Site Property Boundary
- Former Manufacturing Area

REFERENCES

1. Imagery of Jefferson Iowa taken from the United States Department of Agriculture - Farm Service Agency, 2009 National Agriculture Imagery Program. Photo Date: 2010.

2. North American Datum 1983 Iowa State Plane North in Feet

FIGURE NARRATIVE

This figure shows the approximate site property boundary and developed portion of the site. The site property boundary is an approximation and has not been surveyed by a licensed surveyor.

0 100 200 400 Feet

1 inch = 208 feet

N

Golder Associates
Manchester, New Hampshire

FILE No.	Electrolux_Jefferson		
PROJECT No.	103-87305	REV.	0

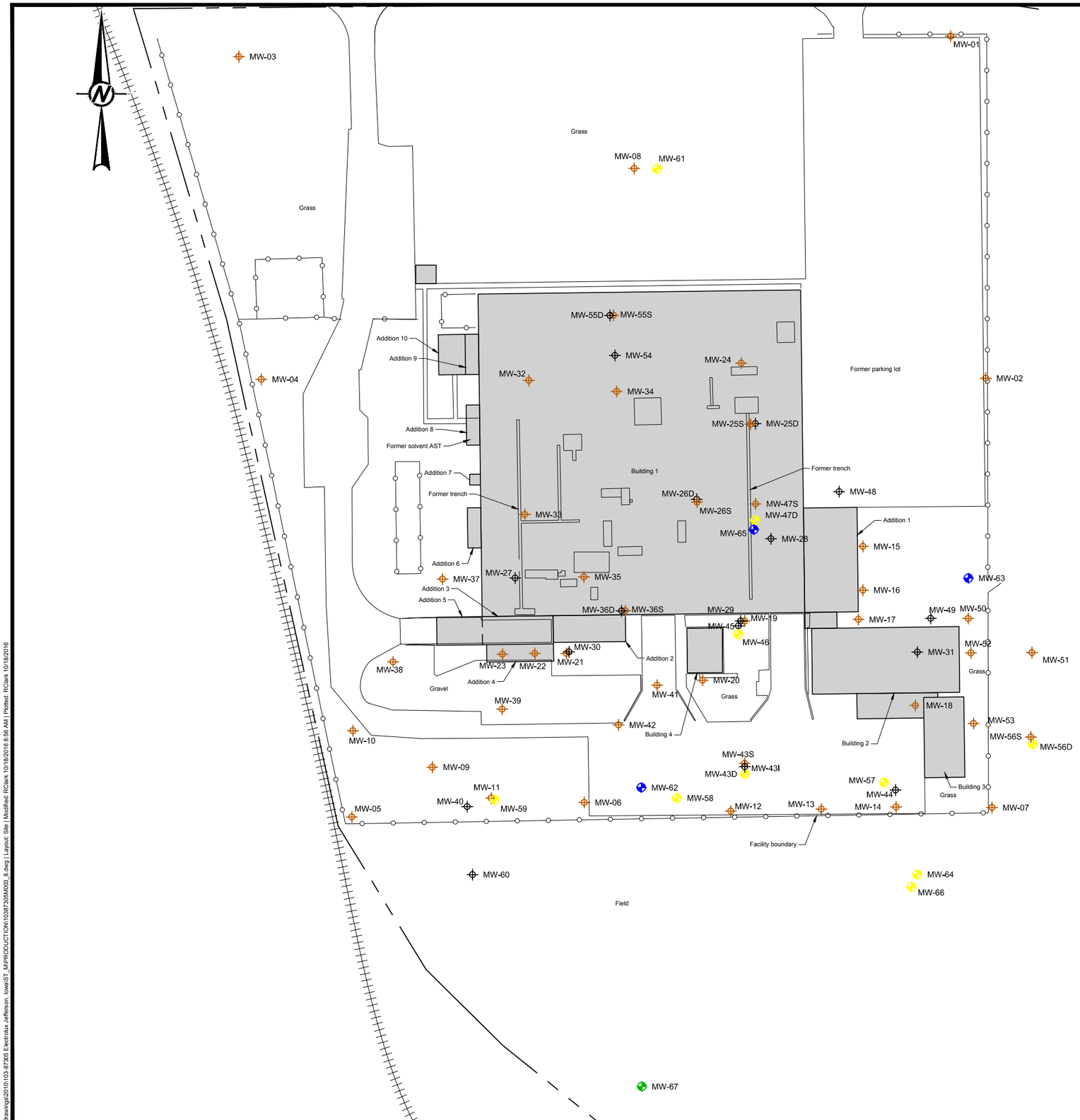
SCALE	AS SHOWN
DATE	10/17/2016
DESIGN	CDS
GIS	SHL
CHECK	ATK
REVIEW	APTM

Site Vicinity Map

Electrolux Home Products - Jefferson, IA

FIGURE **2**

Map: V:\001 GIS Projects\2010\electrolux_Jefferson\Electrolux-Jefferson.mxd | Modified: 10/17/2016 4:35:11 PM | Plotted: 10/17/2016 4:35:51 PM by SLeidinger



LEGEND

	Approximate Site Property Boundary
	Fence
	Edge of gravel
MW-51	Monitoring well screened in Oxidized Brown Till
MW-60	Monitoring well screened in Unoxidized Grey Till
MW-59	Monitoring well screened in Yellow/Brown Till
MW-62	Monitoring well screened in Dark Grey Till
MW-67	Monitoring well screened in Pleistocene Sand and Gravel
	Former Buildings (slab remains)

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure shows the former buildings and well locations at the former Electrolux Home Products facility in Jefferson, Iowa. The features shown on the concrete slab are locations of former concrete-lined floor pits and drains.

0 30 60 90
SCALE FEET

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
SITE PLAN ILLUSTRATING MONITORING WELL LOCATIONS

Golder Associates

PROJECT No.		103-8730501	FILE No.	10387305M003_8
DESIGN	ATK	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	
CHECK	ATK	2016-10-17		3
REVIEW	APTM	2016-10-17		

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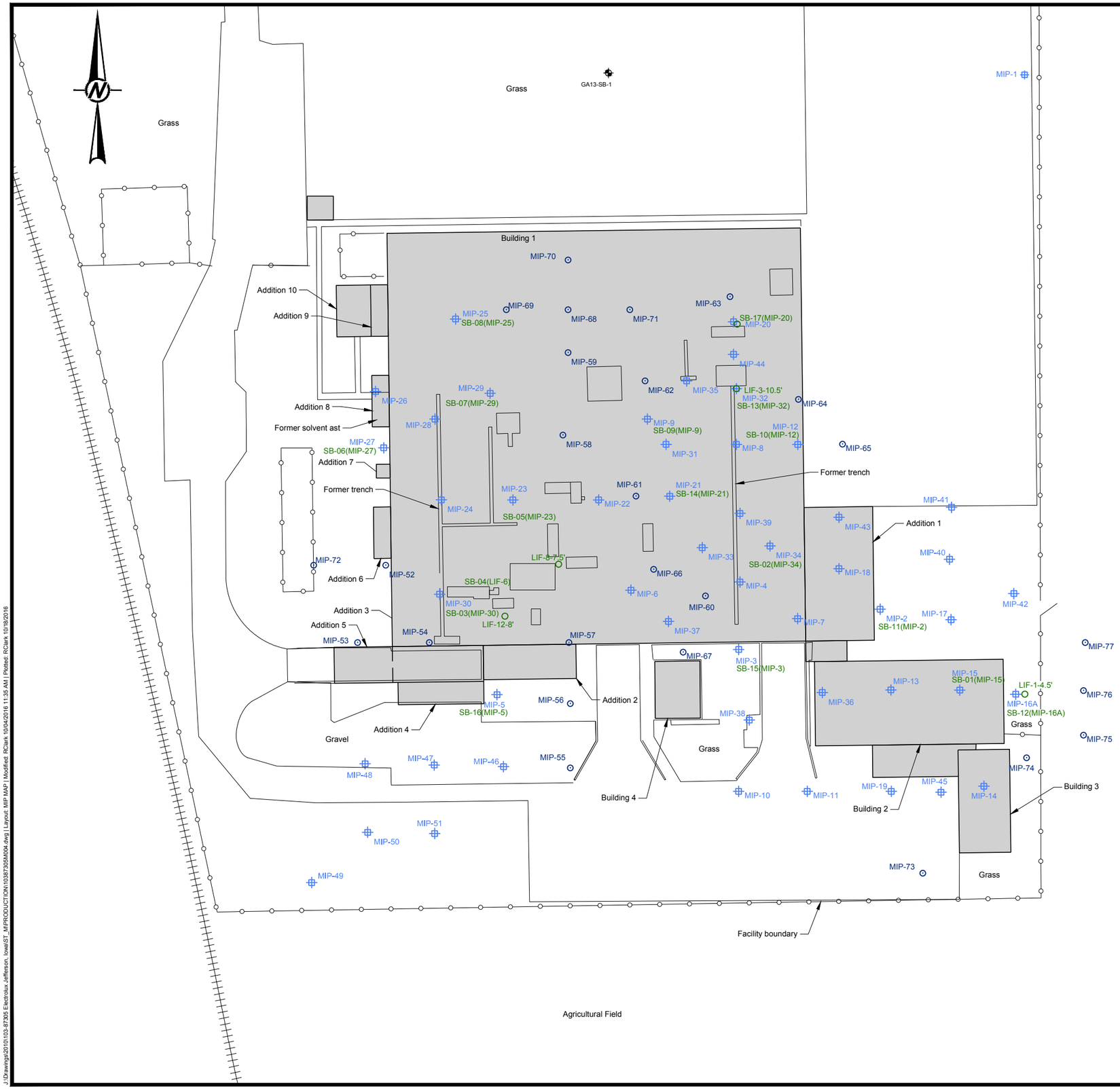

LEGEND

	Fence
	Edge of gravel
MIP-20	Membrane interface probe location completed in April 2012
MIP-77	Membrane interface probe location complete in November 2012
LIF / SB-01 (MIP-15)	Soil boring location
GA13-SB-1	Soil boring location
	LNAPL Soil sampling locations
	Building
	Former Buildings (slab remains)

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure shows the approximate locations of the membrane interface probes (MIP), soil borings, light, non-aqueous phase liquid sampling locations, and deep soil boring location. The MIP locations are color coded to indicate the two separate MIP mobilizations performed in April 2012 and November 2012.

0 30 60 90
SCALE FEET

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
SITE PLAN ILLUSTRATING MIP AND SOIL BORING LOCATIONS

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305M004
DESIGN	ATK	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	
CHECK	ATK	2016-10-17	4	
REVIEW	APTM	2016-10-17		

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LEGEND

	Fence
	Edge of gravel
LIF-6	Laser-induced fluorescence completed in April 2012
LIF-26	Laser-induced fluorescence completed in November 2013
	Building
	Former Buildings (slab remains)

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure shows laser-induced fluorescence (LIF) boring locations. The LIF locations are color coded to indicate the two separate LIF mobilizations performed in April 2012 and November 2012.

0 30 60 90
SCALE FEET

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE

SITE PLAN ILLUSTRATING LIF LOCATIONS

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305M005
DESIGN	JSP	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	
CHECK	ATK	2016-10-17		5
REVIEW	APTM	2016-10-17		

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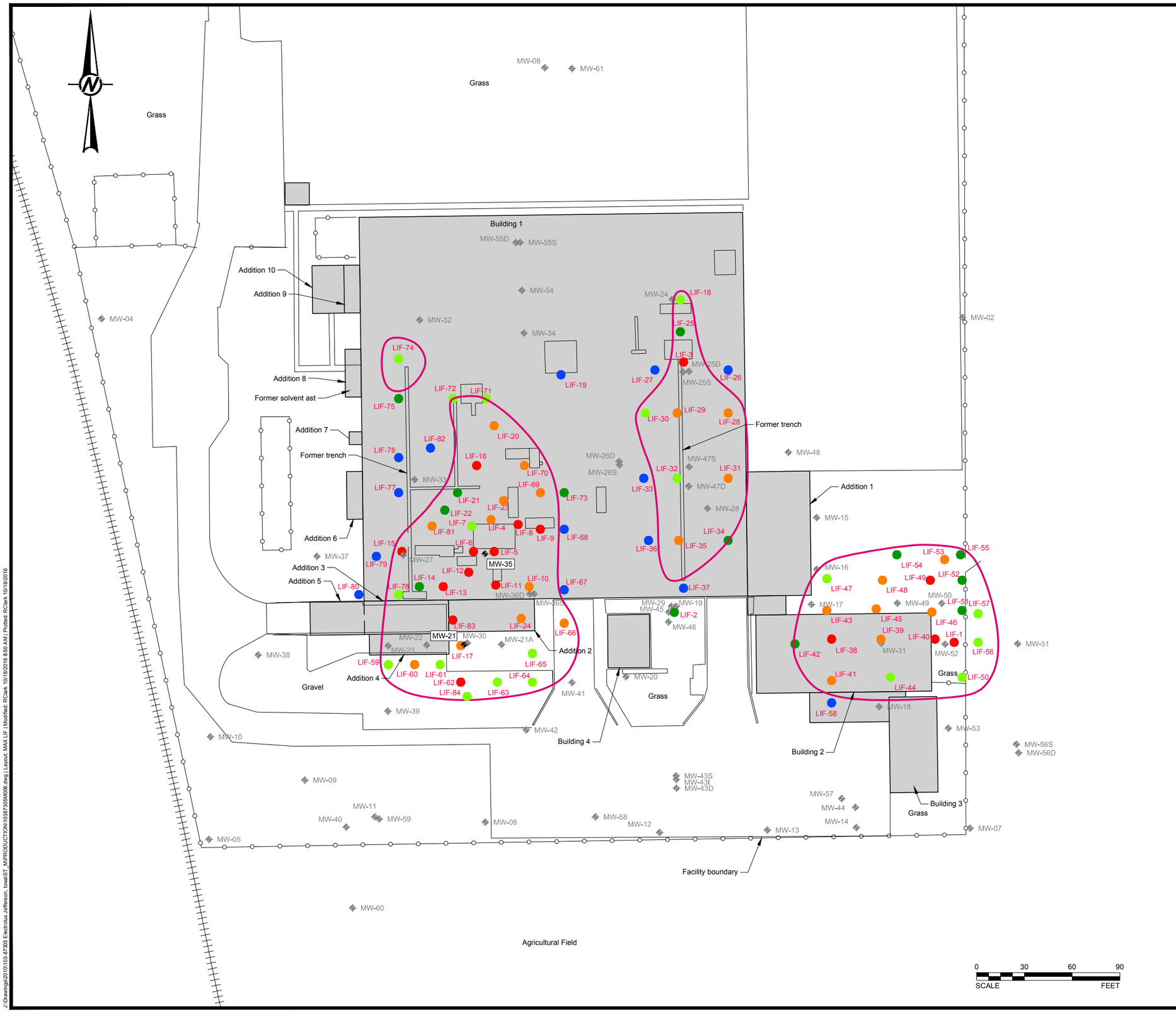


LEGEND

- Fence
- Edge of gravel
- LIF-18 — Laser-induced fluorescence location
- MW-01 — Monitoring well location
- MW-21 — Observed LNAPL in this well
- Building
- Estimated extent of LNAPL
- Former Buildings (slab remains)

LIF RESPONSE

- 100 RE
- 50 RE
- 10 RE
- 5 RE
- 1 RE
- 0.01 RE

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

4.) LNAPL = Light, non-aqueous phase liquid.

5.) RE = Reference emitter.

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure illustrates the maximum LIF response recorded at each LIF probe location during the LIF surveys performed in April and November 2012. The color flood of the discs is indicative of responses observed at each LIF location. The diameter of the borings is exaggerated.

This figure also includes the interpreted extent of light, non-aqueous phase liquid present on site based on LIF and MIP results and TEH groundwater concentrations. In same cases, the maximum LIF response may not be indicative of the presence of LNAPL. See text for additional discussion.

Conditions between LIF borings and wells may vary. Other interpretations are possible.

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE

MAXIMUM LIF RESPONSE AND ESTIMATED LNAPL EXTENT

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305M006
DESIGN	JSP	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	
CHECK	ATK	2016-10-17		6
REVIEW	APTM	2016-10-17		

J:\Drawings\2010\103-87305 Electrolux Jefferson, Iowa\ST_M\PRODUCTION\10387305M006.dwg | Layout: MAX LIF | Modified: RClark 10/18/2016 8:50 AM | Plotted: RClark 10/18/2016

Approximate Depth (ft-bgs)	Diagram	Unit	USCS Description	Average Hydraulic Conductivity (cm/sec)	Soil Description (GA-13-SB, MW-62, MW-63, MW-65, MW-67)	Basis
0		Oxidized Till	CL	2E-06	Oxidized, mottled, brown to yellowish brown, Silty Clay and Sand.	On-Site Investigations
10						
20		Unoxidized Till	CL	3E-08	Unoxidized, firm to stiff, gray to dark gray, Silty Clay and Sand, fine to coarse, with trace fine to coarse gravel.	
30		Yellow Brown Till	SM to ML	1E-04	Loose to firm, yellow-brown, Sand to Silt, fine to coarse, trace fine to coarse gravel, moist to wet.	
40						
50			ML to CL	NA	Stiff to Very Stiff, olive brown to dark gray to black, Silty Clay to Silt/Clayey Silt.	
60		Dark Gray Till	CL	1E-06	Very Stiff brown to gray sandy silty clay, fine to coarse, trace rounded to subrounded fine gravel, moist.	
70						
80			CL to ML	1E-06	Very stiff to hard SILTY CLAY, some sand, trace gravel, dark brown with light brown/orange laminations/ mottling along sandier layers, dry.	Regional Boring Logs
90		Pleistocene Sand and Gravel	SP to SW	8.5E-02 (IDNR,2013)	Loose, light brown fine to coarse SAND (majority medium sand), slightly coarser with depth, trace gravel up to 1/2", trace silt, wet.	
100		Lower Dark Gray Till	CL to ML	NA	Very stiff, SILTY CLAY, some sand, trace gravel, gray/brown with abundant orange/brown mottling, some pockets of tan silt/sand (weathered sandstone gravel?), moist, till.	

NOTES

CL = Low-plasticity clay

SM = Sand and silt mixture

ML = Non-plastic and medium plasticity silt

SP = Poorly graded sand

SW = Well graded sand

NA = Not available

cm/sec - Centimeters per second

Hydraulic conductivity values from onsite slug tests, except where noted.

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

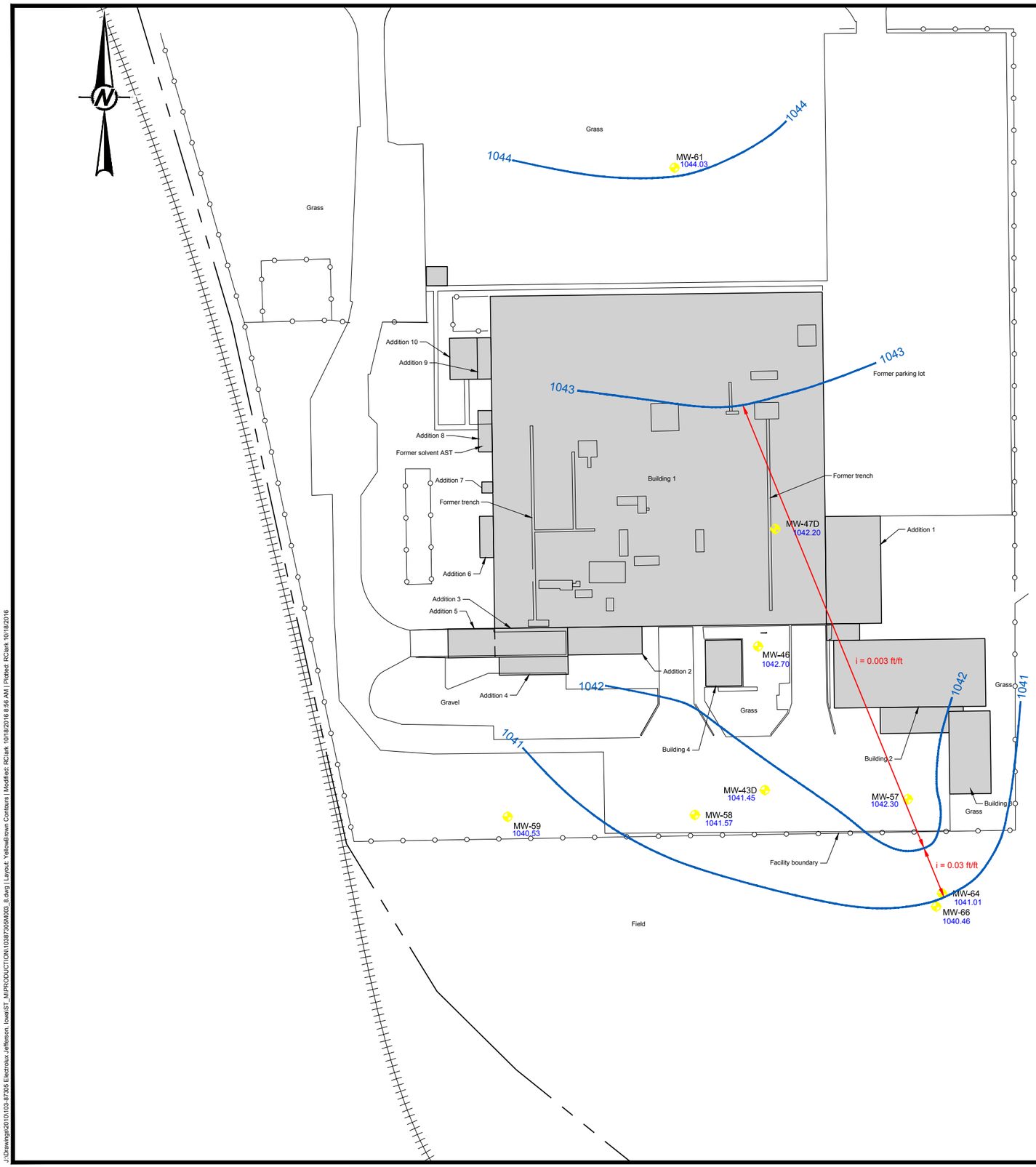
TITLE

GENERALIZED GEOLOGIC PROFILES

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305M007
DESIGN	JSP	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	7
CHECK	ATK	2016-10-17		
REVIEW	APTM	2016-10-17		

J:\Drawings\2010\103-87305 Electrolux Jefferson, Iowa\ST_M\PRODUCTION\10387305M007.dwg | Layout: Conc Geo | Modified: RClark 10/04/2016 11:47 AM | Plotted: RClark 10/18/2016



LEGEND

	Approximate Site Property Boundary
	Fence
	Edge of gravel
MW-59	Monitoring well screened in Yellow/Brown Till
	Former Buildings (slab remains)
i = 0.003 ft/ft	Horizontal Hydraulic Gradient

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure depicts the groundwater elevation, as measured in the nine monitoring wells screened within the yellow brown till, and is intended to represent the approximate elevation of the groundwater potentiometric surface. The posted data were calculated from depth to water measurements made by Golder on July 1, 2016. The direction of horizontal groundwater flow at and near the potentiometric surface can be generally interpreted as being perpendicular to the groundwater elevation contours.

Golder inferred the elevation contours based on the data illustrated. The actual elevation of the potentiometric surface is likely more heterogeneous than shown and actual conditions will vary. Other interpretations are possible. The depth to groundwater is known to vary with time.

0 30 60 90
SCALE FEET

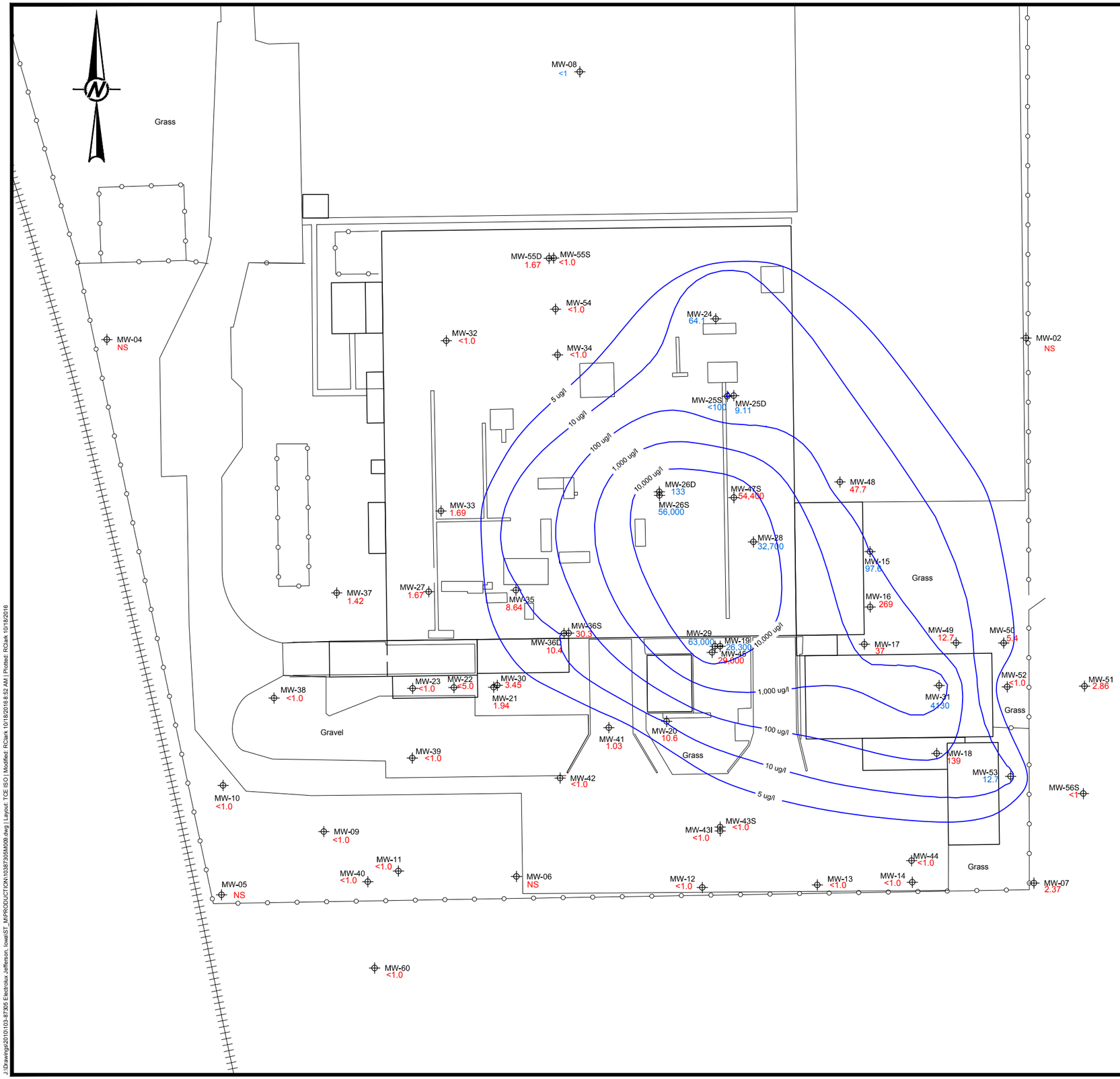
PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
JULY 2016
YELLOW-BROWN TILL POTENTIOMETRIC SURFACE CONTOUR MAP

Golder Associates

PROJECT No.		103-8730501	FILE No.	10387305M003_8
DESIGN	ATK	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	
CHECK	ATK	2016-10-17		8
REVIEW	APTM	2016-10-17		

J:\Drawings\2010\103-87305 Electrolux Jefferson, Iowa\ST_MI\PRODUCTION\10387305M003_8.dwg | Layout: YellowBrown Contours | Modified: RClark 10/18/2016 8:56 AM | Plotted: RClark 10/18/2016



LEGEND

	Fence
	Edge of gravel
MW-48	Monitoring well location
47.7	TCE concentration (ug/L) December 2012 / March 2013
2210	TCE concentration (ug/L) October 2014
	Interpreted TCE Iso-concentration contour (ug/L)
	Building
	Former Buildings (slab remains)

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

4.) NS = Not Sampled.

5.) ug/L = Micrograms per liter

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure shows the interpreted trichloroethene isoconcentration contours based on groundwater analytical data from the December 2012 and October 2013 sampling events for wells screened in the oxidized and unoxidized till. The isoconcentration contours are intended to depict the inferred distribution of TCE in groundwater on the basis of the data illustrated. The distribution is likely more heterogeneous than shown, and the actual conditions will vary. Other interpretations are possible. The TCE distribution in groundwater is known to vary with time.

0 30 60 90
SCALE FEET

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

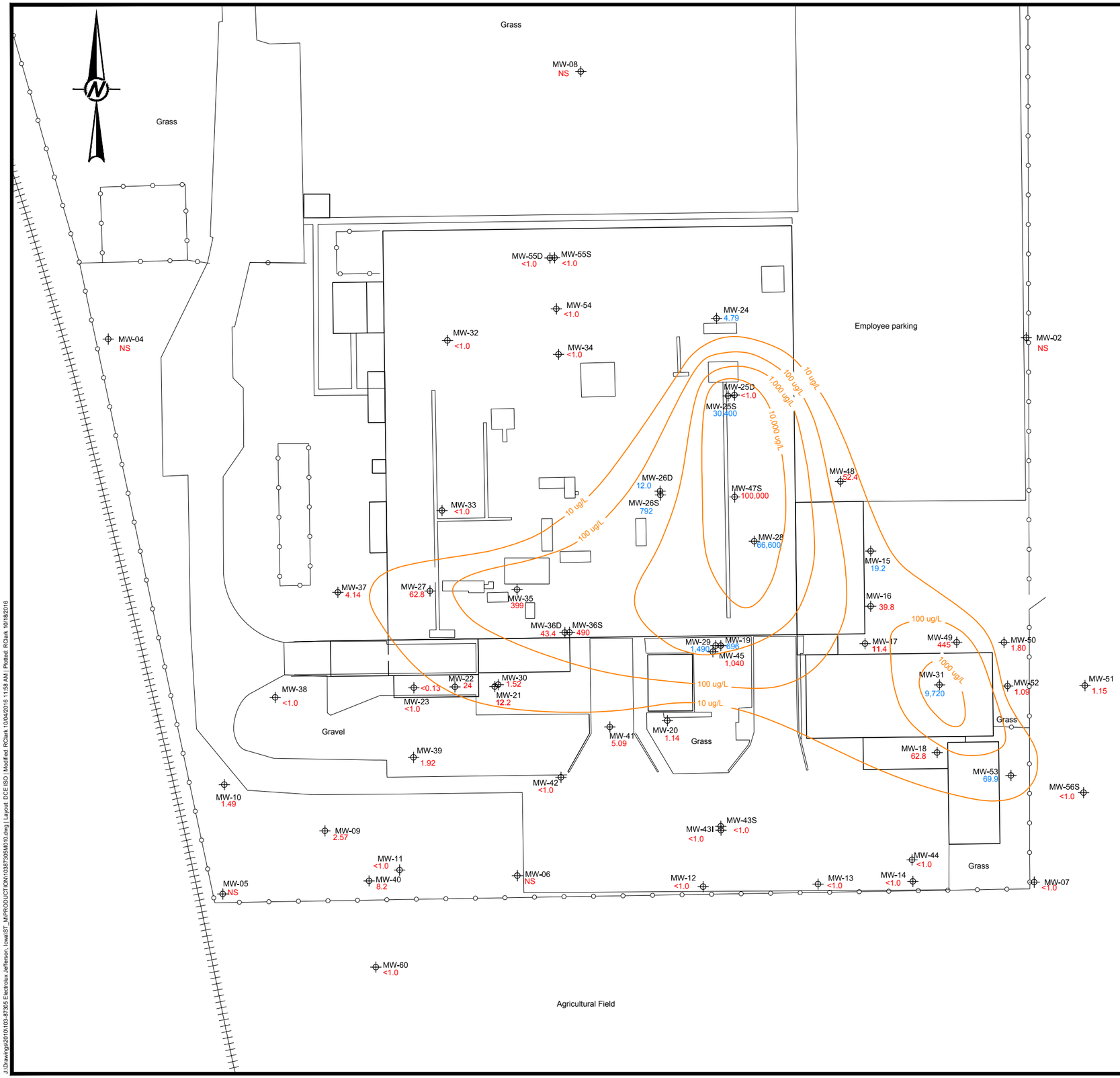
TITLE

INTERPRETED TCE ISOCONCENTRATION CONTOURS FOR WELLS SCREENED IN UPPER TILL UNITS

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305M009
DESIGN	ATK	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	9
CHECK	ATK	2016-10-17		
REVIEW	APTM	2016-10-17		

J:\Drawings\2010\103-87305 Electrolux Jefferson, Iowa\ST_MIPRODUCTION\10387305M009.dwg | Layout: TCE ISO | Modified: RClark 10/18/2016 8:52 AM | Plotted: RClark 10/18/2016



LEGEND

	Fence
	Edge of gravel
MW-48	Monitoring well location
47.7	cis-1,2-DCE concentration (ug/L) December 2012
47.7	cis-1,2-DCE concentration (ug/L) October 2014
	Interpreted cis-1,2-DCE Iso-concentration contour (ug/L)
	Building
	Former Buildings (slab remains)

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

4.) NS = Not Sampled.

5.) ug/L = Micrograms per liter

6.) Data from MW-15, MW-16, and MW-17 was not used in contouring Iso-Concentrations

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure shows the interpreted cis-1,2-dichloroethene (DCE) isoconcentration contours based on groundwater analytical data from the December 2012 and October 2014 sampling events for wells screened in the oxidized and unoxidized till. The isoconcentration contours are intended to depict the inferred distribution of DCE in groundwater on the basis of the data illustrated. The distribution is likely more heterogeneous than shown, and the actual conditions will vary. Other interpretations are possible. The DCE distribution in groundwater is known to vary with time.

0 30 60 90
SCALE FEET

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE

INTERPRETED CIS-1,2 DCE ISO-CONCENTRATION CONTOURS FOR WELLS SCREENED IN UPPER TILL UNITS

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305M010
DESIGN	ATK	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	
CHECK	ATK	2016-10-17		10
REVIEW	APTM	2016-10-17		

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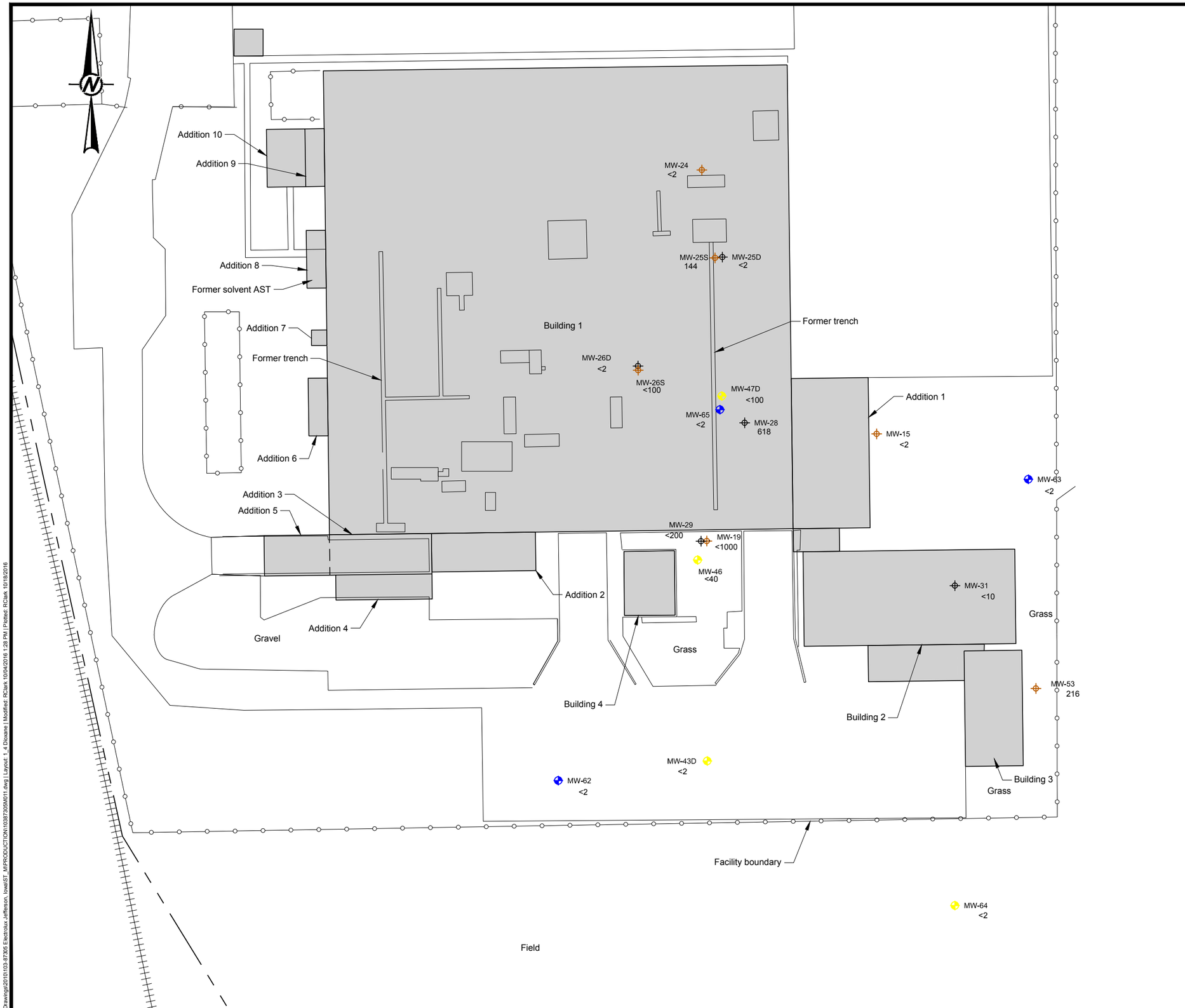

LEGEND

	Approximate Site Property Boundary
	Fence
	Edge of gravel
MW-24 <2	Monitoring well screened in Oxidized Brown Till 1,4 Dioxane Concentration (ug/L) October 2013
MW-60	Monitoring well screened in Unoxidized Grey Till
MW-59	Monitoring well screened in Yellow/Brown Till
MW-62	Monitoring well screened in Dark Grey Till
MW-67	Monitoring well screened in Pleistocene Sand and Gravel
	Former Buildings (slab remains)

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure shows the former buildings and well locations at the former Electrolux Home Products facility in Jefferson, Iowa. The features shown on the concrete slab are locations of former concrete-lined floor pits and drains.

0 30 60 90
SCALE FEET

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
1,4 DIOXANE CONCENTRATIONS

Golder Associates

PROJECT No.		103-8730501	FILE No.	10387305M011
DESIGN	ATK	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	11
CHECK	ATK	2016-10-17		
REVIEW	APTM	2016-10-17		

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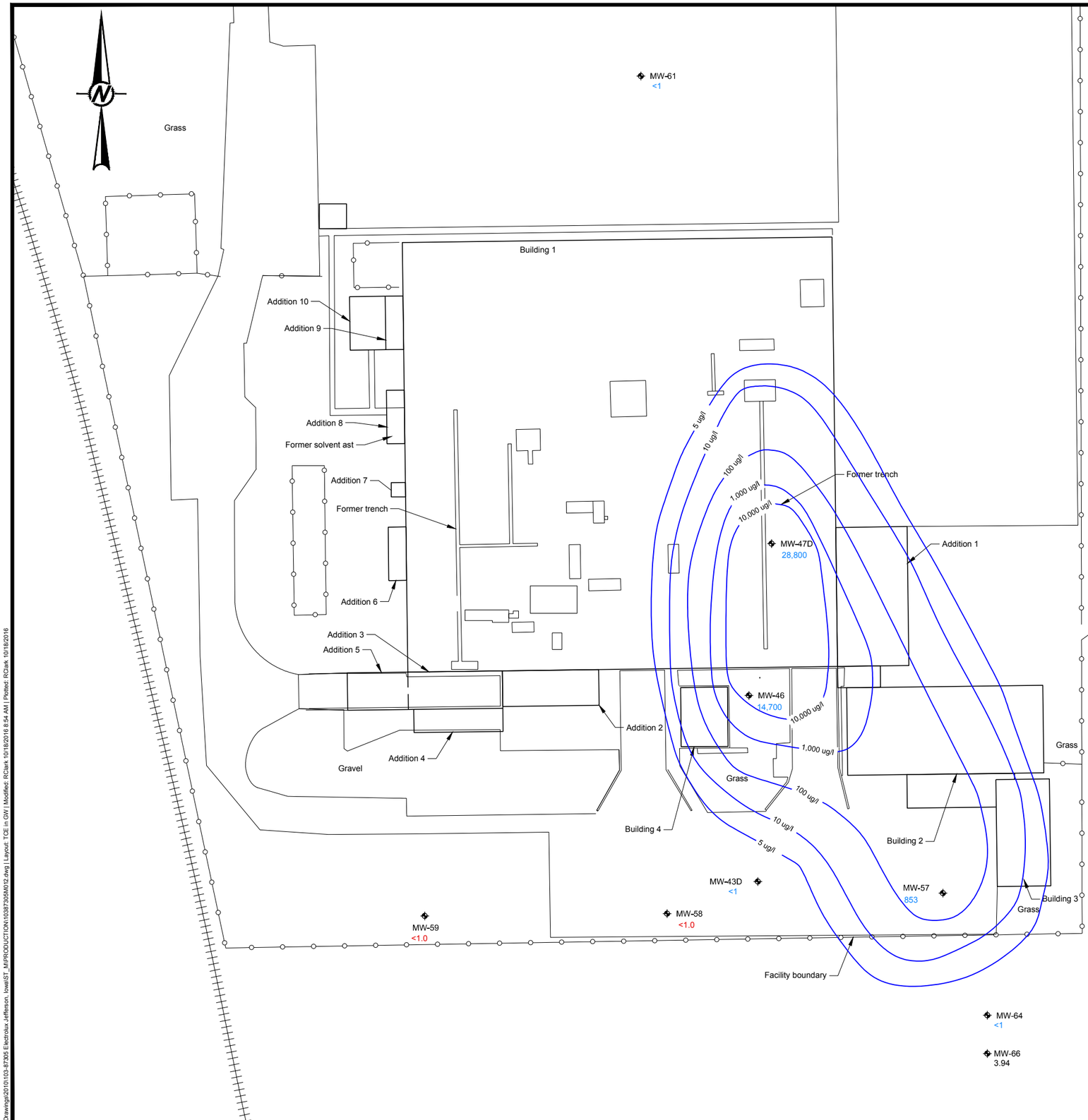

LEGEND

	Fence
	Edge of gravel
MW-57	Monitoring well screened in yellow-brown till
9.3	TCE concentration (ug/L) March 2013
9.3	TCE concentration (ug/L) October 2014
9.3	TCE concentration (ug/L) October 2015
	Interpreted TCE concentration contour (ug/L)
	Former Buildings (slab remains)

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

4.) ug/L = Micrograms per liter

FIGURE NARRATIVE

This figure shows the interpreted trichloroethene isoconcentration contours based on groundwater analytical data from the March 2013 to October 2015 sampling events for wells screened in the Yellow-Brown till. The isoconcentration contours are intended to depict the inferred distribution of TCE in groundwater on the basis of the data illustrated. The distribution is likely more heterogeneous than shown, and the actual conditions will vary. Other interpretations are possible. The TCE distribution in groundwater is known to vary with time.

0 30 60 90
SCALE FEET

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
INTERPRETED TCE IN GROUNDWATER YELLOW-BROWN TILL

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305M012
DESIGN	ATK	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	
CHECK	ATK	2016-10-17	12	
REVIEW	APTM	2016-10-17		

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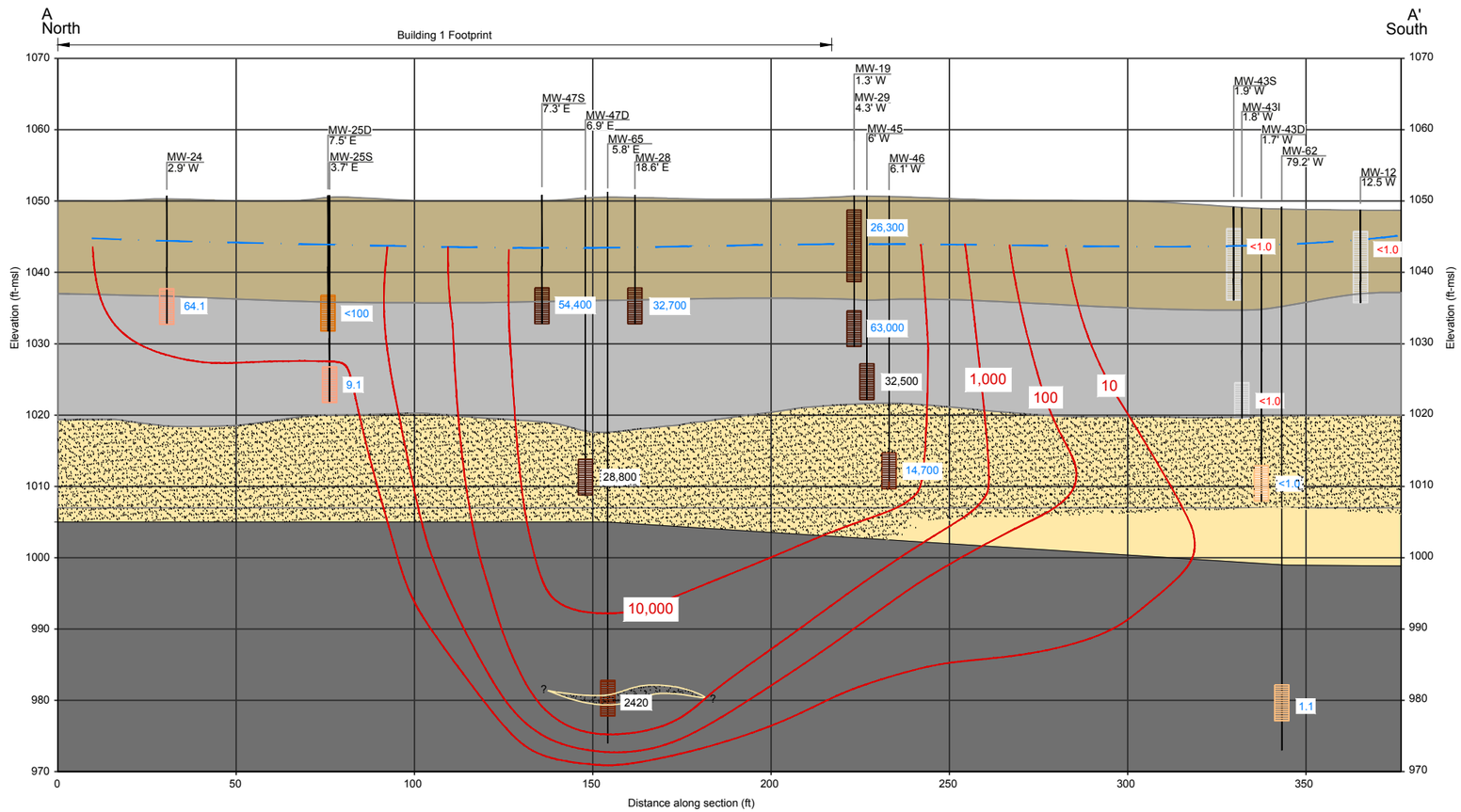


A TCE CONCENTRATION (ug/l)

TCE CONCENTRATION

- 100,000 ug/l
- 10,000 ug/l
- 1,000 ug/l
- 100 ug/l
- 10 ug/l
- 1 ug/l
- 0.1 ug/l

LEGEND

MW-12 / 12.5 W — Well I.D. / Offset direction and distance / C/L = centerline

Well screen interval

GEOLOGIC LAYER

- Oxidized brown till
- Unoxidized gray till
- Yellow brown till
- Indicates more coarse-grained till, sand and gravel
- Dark gray till
- Water Table

9.3 TCE concentration (ug/L) December 2012

9.3 TCE concentration (ug/L) October 2014

9.3 TCE concentration (ug/L) July 2016

ABBREVIATIONS

ft-msl = Feet Mean Sea Level

ug/l = Micrograms Per Liter

TCE = Trichloroethylene

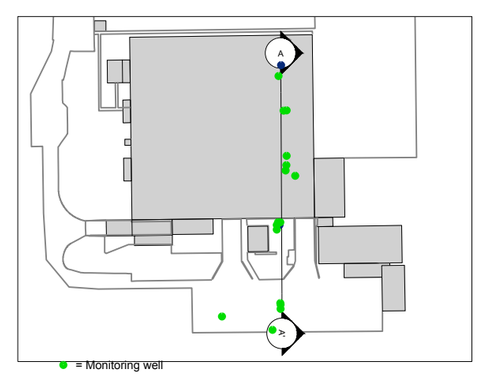
NOTES

1.) Golder developed the geologic cross sections using Environmental Visualization System (EVS) software developed by CTech Corporation (Version 9.84). Where necessary, Golder adjusted EVS output using professional judgment.

2.) Geologic contacts illustrated between and below borings are inferred and should not be interpreted as exact indicators of geologic conditions at, between or below borings.

3.) The projection of well screens onto geologic units may not reflect actual geologic conditions at the well screen interval due to variations in the elevation of geologic layers with distance from the cross-section centerline.

4.) This figure shows the TCE groundwater concentrations for the north-south cross-section (A-A') on the eastern side of Building 1. The cross-section includes groundwater data collected in December 2012, October 2014, and July 2016.



0 20 40 60
SCALE 2X EXAGGERATION FEET

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE

CROSS SECTION A-A' TCE RESULTS AND GEOLOGIC INTERPRETATION

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305M013
DESIGN	ATK	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	
CHECK	ATK	2016-10-17	13	
REVIEW	APTM	2016-10-17		

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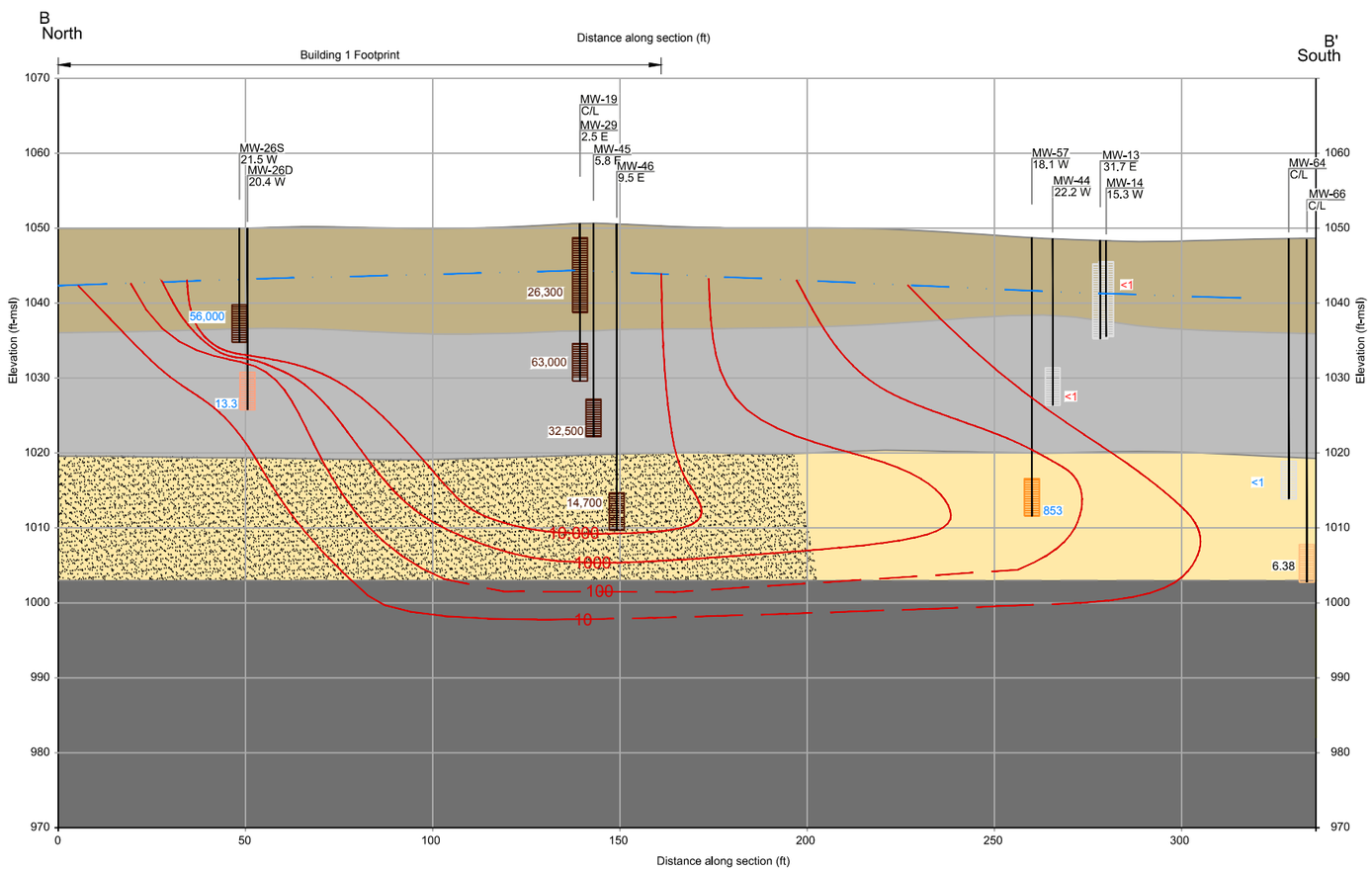
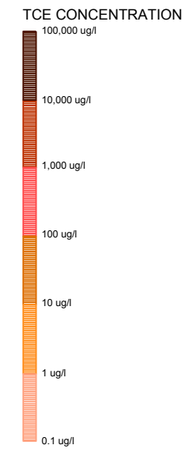


B TCE CONCENTRATION (ug/l)



LEGEND

MW-12 / 12.5 W — Well I.D. / Offset direction and distance / C/L = centerline

Well screen interval

GEOLOGIC LAYER

- Oxidized brown till
- Unoxidized gray till
- Yellow brown till
- Indicates more coarse-grained soil, sand and gravel
- Dark gray till

Water Table

9.3 — TCE concentration (ug/L) December 2012

9.3 — TCE concentration (ug/L) October 2014

9.3 — TCE concentration (ug/L) July 2016

ABBREVIATIONS

ft-msl = Feet Mean Sea Level

ug/L = Micrograms Per Liter

TCE = Trichloroethylene

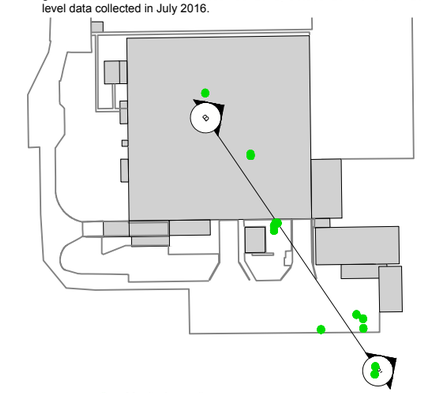
NOTES

1.) Golder developed the geologic cross sections using Environmental Visualization System (EVS) software developed by CTech Corporation (Version 9.84). Where necessary, Golder adjusted EVS output using professional judgment.

2.) Geologic contacts illustrated between and below borings are inferred and should not be interpreted as exact indicators of geologic conditions at, between or below borings.

3.) The projection of well screens onto geologic units may not reflect actual geologic conditions at the well screen interval due to variations in the elevation of geologic layers with distance from the cross-section centerline.

4.) This figure shows the TCE groundwater concentrations for the north-south B-B' cross-section. The cross-section includes groundwater data collected in December 2012, October 2014 and Nov. 2015. Water level data collected in July 2016.



● = Monitoring well

0 20 40 60
FEET

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
CROSS SECTION B-B' TCE RESULTS AND GEOLOGIC INTERPRETATION

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305M014
DESIGN	ATK	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	14
CHECK	ATK	2016-10-17		
REVIEW	APTM	2016-10-17		

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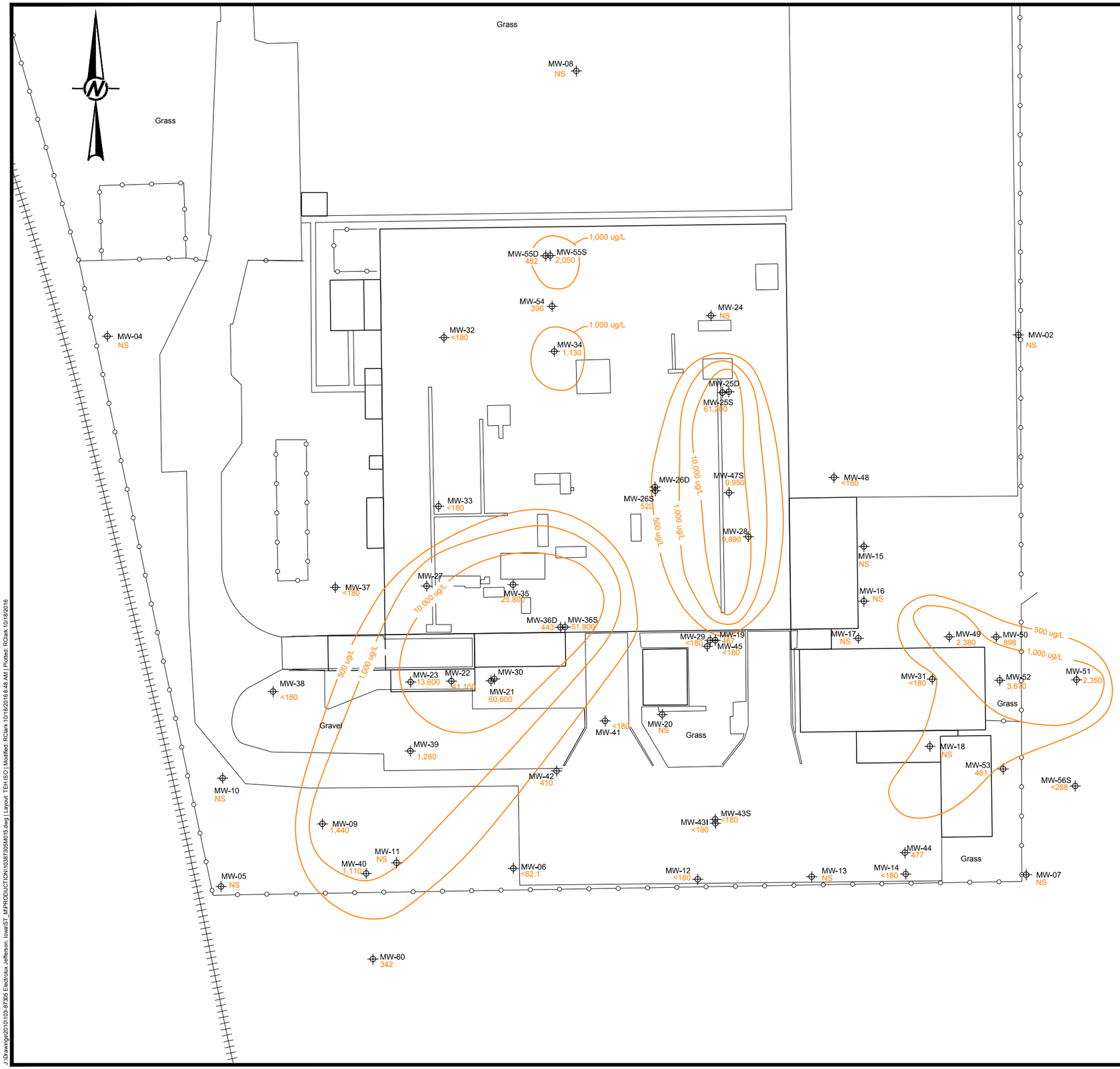


LEGEND

	Fence
	Edge of gravel
MW-48	Monitoring well location
47.7	TEH concentration (ug/L)
	Interpreted TEH concentration contour (ug/L)
	Building
	Former Buildings (slab remains)

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

4.) NS = Not Sampled

5.) TEH = Total Extractable Hydrocarbons

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure shows the interpreted total extractable hydrocarbon (TEH) isoconcentration contours based on groundwater analytical data from the December 2012 sampling event for wells screened in the oxidized and unoxidized till. The isoconcentration contours are intended to depict the inferred distribution of TEH in groundwater on the basis of the data illustrated. The distribution is likely more heterogeneous than shown, and the actual conditions will vary. Other interpretations are possible. The TEH distribution in groundwater is known to vary with time.

0 30 60 90
SCALE FEET

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
INTERPRETED TEH ISOCONCENTRATION CONTOURS FOR WELLS SCREENED IN UPPER TILL UNITS

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305M015
DESIGN	JSP	2016-10-03	SCALE	AS SHOWN
CADD	RWC	2016-10-03	FIGURE	
CHECK	ATK	2016-10-17	15	
REVIEW	APTM	2016-10-17		

J:\Drawings\2010\103-87305 Electrolux Jefferson, Iowa\ST_MP\PRODUCTION\10387305M015.dwg | Layout: TEH ISO | Modified: RClark 10/18/2016 8:48 AM | Plotted: RClark 10/18/2016

APPENDIX A

CITY OF JEFFERSON
WELL FIELD CAPTURE ZONES AND
2016 WELL INVENTORY

WELL INVENTORY - JEFFERSON, I0WA
JULY 2016

CITY OF JEFFERSON WELLS #7 and #8

MUNICIPAL WELL #7

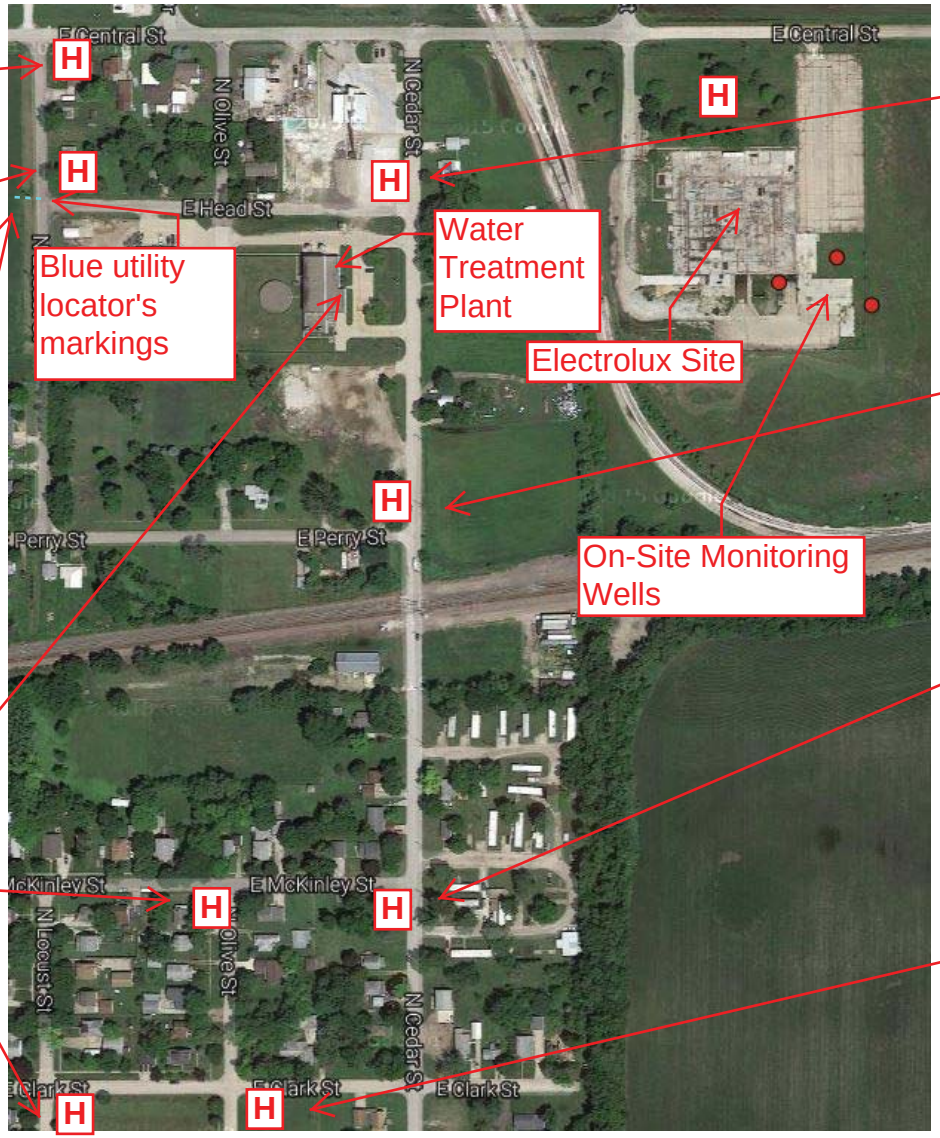
MUNICIPAL WELL #8

AREA NORTH OF ELECTROLUX SITE

H = Fire hydrant

Golder Associates

AREA SOUTHWEST OF ELECTROLUX SITE



H = Fire hydrant

Golder Associates

CITY OF JEFFERSON WELLS #2, #4, #6, and #9

Municipal Well #6

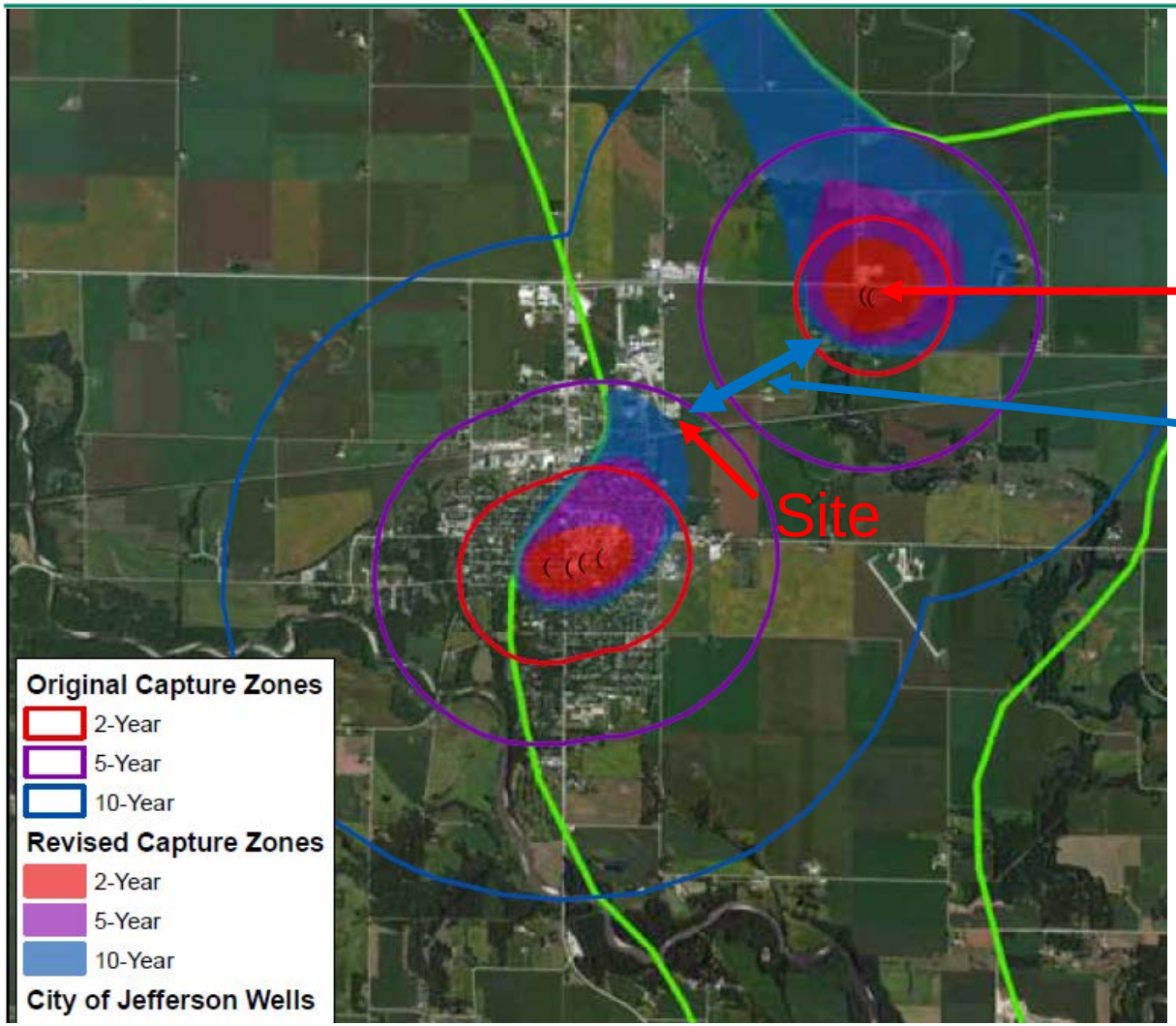
Water valve

Municipal Well #4

Municipal Well #9

Municipal Well #2

Projected Capture Zone – Wells 7 and 8



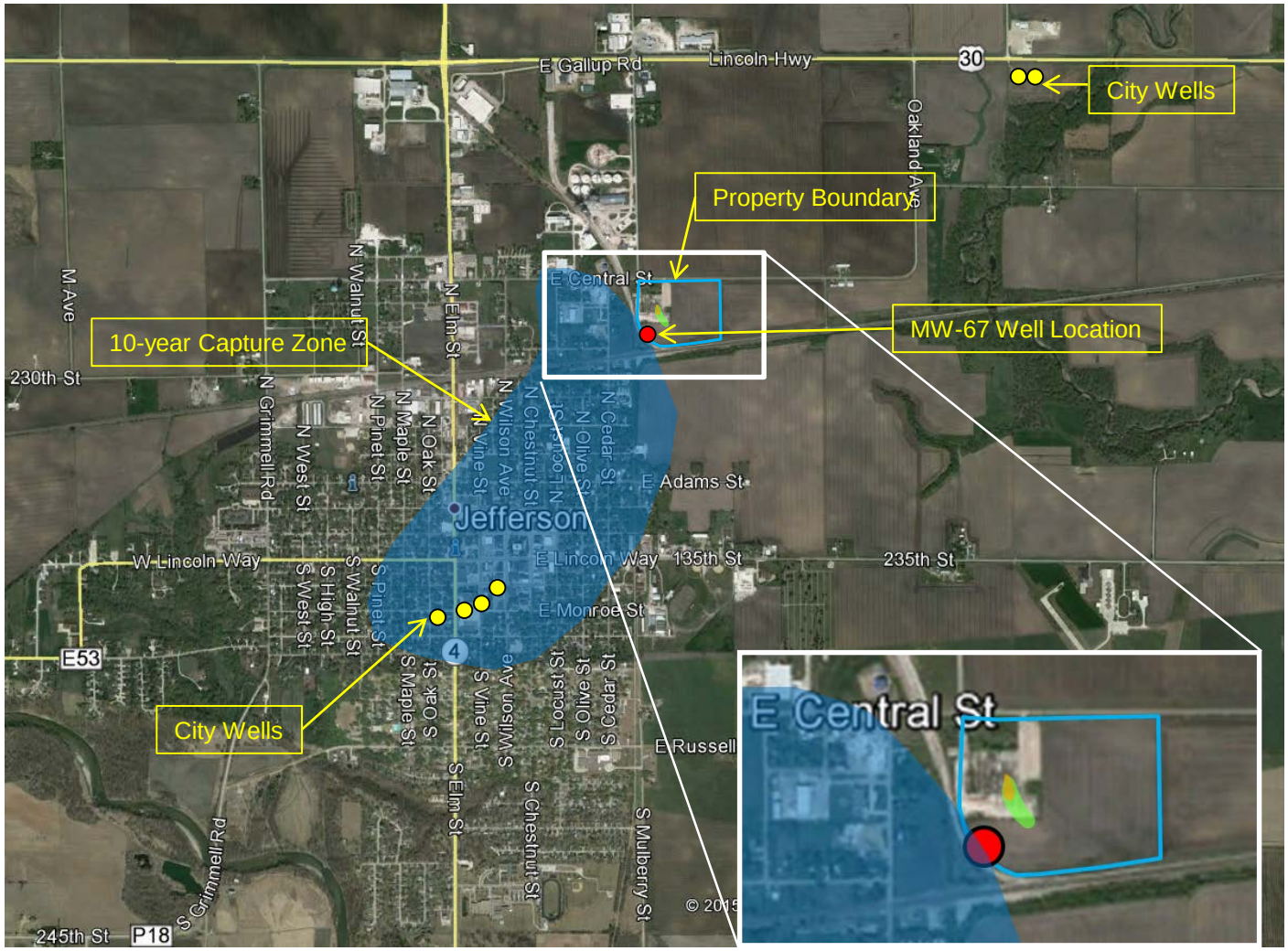
City Wells 7 and 8

Distance approximately 0.75 miles

Source
Jefferson Groundwater Investigation
Greene County, Iowa

Iowa Geological and Water Survey
Technical Information Series 56
December 2013

Pleistocene Sand and Gravel Monitoring Well Location



APPENDIX B

MIP PROBE LOGS AND ASSESSMENT RESULTS

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MIP Field Logs

MIP/EC field Logs (April and November 2012)

Table 1: Summary of MIP Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

	MIP-01			MIP-02			LIF-47	MIP-03			LIF-02	MIP-04			LIF-35	MIP-05			LIF-17	MIP-06			MIP-07		
Depth (ft)	PID	FID	XSD	PID	FID	XSD	%RE	PID	FID	XSD	%RE	PID	FID	XSD	%RE	PID	FID	XSD	%RE	PID	FID	XSD	PID	FID	XSD
	Apr 2012			Apr 2012			Nov 2012	Apr 2012			Apr 2012	Apr 2012			Nov 2012	Apr 2012			Apr 2012	Apr 2012			Apr 2012		
1	43,947	41,505	19,837	44,862	39,979	22,889	13.7	49,745	40,284	23,652	9	44,557	42,421	22,889	10.7	55,544	65,310	28,993	3.3	82,400	52,797	23,652	65,615	42,726	21,363
2	43,947	43,336	19,837	46,388	39,674	21,363	1.5	57,375	66,530	27,467	2.5	50,966	42,116	24,415	11.8	100,406	283,212	28,993	2.2	82,705	53,713	24,415	69,582	46,388	25,178
3	44,557	43,947	19,074	51,576	44,252	20,600	1.1	50,966	39,369	22,889	1.2	58,901	49,440	22,889	5.1	99,185	183,721	27,467	0.8	82,095	52,797	22,126	71,108	50,050	24,415
4	45,167	45,473	17,548	50,661	49,745	21,363	1.1	63,478	97,964	25,178	0.9	59,206	53,407	28,993	9.6	110,477	1,879,025	28,230	0.7	82,095	54,018	22,889	72,634	50,661	27,467
5	45,473	47,914	18,311	52,797	61,647	19,837	1.4	50,661	59,206	24,415	0.8	59,816	58,290	22,126	9.4	148,625	1,602,527	28,230	3.3	83,010	57,375	23,652	88,198	93,692	35,096
6	47,304	53,407	19,074	61,953	80,264	22,126	1.1	58,290	70,498	39,674	0.8	54,018	62,868	23,652	6.9	187,078	862,453	28,230	16.7	86,673	68,667	24,415	98,575	126,041	44,252
7	62,563	115,665	18,311	49,745	56,764	21,363	2.6	88,809	99,490	87,741	0.8	73,244	1,561,937	44,252	25.4	350,658	617,084	28,993	12.8	102,237	112,613	24,415	85,452	97,659	35,859
8	60,427	186,468	20,600	48,524	45,473	20,600	4.9	70,498	56,154	68,667	0.7	78,738	951,262	55,696	25	383,923	676,595	28,993	4.7	84,536	63,784	22,889	74,770	58,596	29,756
9	48,830	69,582	19,837	47,304	47,914	20,600	2.5	105,289	59,206	115,970	0.7	93,692	1,119,419	80,874	25.2	381,787	672,628	28,230	15.5	83,010	63,784	22,889	75,991	61,037	30,519
10	48,219	86,062	20,600	46,388	48,219	21,363	1.2	317,087	114,444	305,948	0.8	111,698	175,176	103,000	22.7	724,204	1,319,010	31,281	31.6	82,400	65,310	22,126	77,212	63,173	32,044
11	46,388	58,901	20,600	46,388	48,219	23,652	1	1,120,334	343,333	717,185	0.7	209,662	140,385	189,978	20.6	689,413	1,234,168	30,519	7.2	82,095	64,699	22,126	77,517	63,478	34,333
12	46,388	61,037	21,363	47,914	52,187	24,415	1	1,870,174	584,735	990,326	0.7	526,444	233,772	390,637	15.9	755,028	1,490,219	30,519	0.8	82,095	68,056	22,889	79,958	66,225	40,437
13	46,388	61,953	19,837	49,135	53,713	31,281	1	2,529,374	871,609	1,091,037	0.8	675,069	268,563	462,355	15.7	836,512	1,485,641	32,044	1	82,095	71,108	23,652	83,926	68,361	51,119
14	46,388	62,258	20,600	51,881	107,425	36,622		2,732,017	966,826	1,165,807	0.8	4,368,114	2,975,250	1,886,807	11.5	801,416	1,300,699	30,519	0.8	80,874	67,141	22,126	84,231	68,667	51,881
15	46,999	62,868	19,074	77,212	167,547	74,007		2,832,118	1,018,098	1,123,844	0.9	1,260,414	473,037	625,629	0.5	748,619	1,180,761	29,756		80,874	67,751	25,178	83,621	68,972	51,119
16	46,999	66,836	21,363	54,933	77,517	48,067		2,368,236	793,481	915,555	0.9	1,153,294	441,603	582,141	0.5	704,672	1,131,016	30,519		80,569	68,667	22,126	80,874	67,141	43,489
17	46,388	63,784	21,363	52,187	53,407	39,674		1,069,369	349,132	486,007	1	853,298	332,041	467,696	0.4	651,265	1,033,662	28,230		79,348	68,361	23,652	78,433	66,225	38,911
18	46,693	63,784	19,837	50,050	53,713	32,807		610,370	214,850	324,259	0.9	591,144	242,927	350,963		585,345	903,958	28,230		79,043	68,972	22,126	76,601	65,920	34,333
19	46,388	63,478	23,652	48,830	53,102	32,807		234,382	112,308	164,800	0.9	364,391	169,683	247,200		550,859	848,720	28,230		79,348	69,277	22,126	75,991	65,920	32,044
20	46,999	63,478	22,889	48,524	53,102	30,519		359,813	127,873	227,363	0.9	218,207	122,379	168,615		512,101	790,124	26,704		78,433	68,972	23,652	75,076	65,920	29,756
21	46,083	67,141	19,074	48,830	60,121	28,230		136,723	68,667	109,867	0.9					472,427	733,665	27,467		78,433	70,498	22,889	74,770	65,920	30,519
22	46,999	65,310	20,600	46,693	52,797	25,941					0.9					446,791	678,121	26,704		77,822	78,127	21,363	74,465	65,310	29,756
23	46,693	64,394	19,837	46,693	52,492	25,941					0.9					447,707	675,680	27,467		77,822	73,550	23,652	72,634	64,394	26,704
24	46,999	65,004	20,600	46,388	52,492	25,178										408,032	612,812	28,993		77,822	76,601	21,363	74,160	65,920	29,756
25	46,999	64,394	20,600	47,609	60,732	24,415										371,410	546,892	27,467		77,517	79,043	24,415	72,939	65,310	28,230
26	46,693	63,784	19,074	52,187	85,757	26,704										325,632	469,680	27,467		76,907	79,043	22,126	72,634	64,699	27,467
27	46,999	63,173	24,415	46,999	65,310	23,652														76,907	79,348	22,889	72,329	64,699	29,756
28	46,693	70,498	19,837																	76,296	78,738	22,889	72,634	65,310	28,230
29	46,693	62,258	19,837																	75,076	77,822	22,126	72,329	68,056	28,230
30	46,083	61,342	18,311																	74,770	76,907	22,889	72,024	64,699	28,993
31																				73,550	76,907	20,600			
32																									
33																									
34																									

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:

	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Table 1: Summary of MIP Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

	MIP-08			LIF-29	MIP-09			MIP-10			MIP-11			MIP-12			LIF-28	MIP-13			LIF-38	MIP-14		
Depth (ft)	PID	FID	XSD	%RE	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	%RE	PID	FID	XSD	%RE	PID	FID	XSD
	Apr 2012			Nov 2012	Apr 2012			Apr 2012			Apr 2012			Apr 2012			Nov 2012	Apr 2012			Nov 2012	Apr 2012		
1	68,056	1,027,253	28,230	26.5	83,621	106,815	26,704	74,770	44,557	23,652	63,784	41,810	34,333	50,661	44,557	22,126	16.6	71,718	920,743	40,437	2.5	78,127	69,277	21,363
2	68,361	180,059	26,704	15.5	81,484	72,939	28,993	75,076	50,050	25,941	64,089	42,116	32,807	69,582	79,653	22,126	27.8	56,154	297,555	28,993	2.1	81,790	73,550	22,889
3	69,887	419,324	25,941	2.9	87,893	140,690	28,993	75,686	52,797	25,178	64,394	44,252	38,148	65,310	72,329	22,889	0.5	115,055	1,407,208	106,815	3.4	79,653	72,329	22,889
4	73,244	1,994,995	26,704	5.1	86,367	116,886	28,993	90,945	116,581	34,333	64,699	46,388	38,148	60,732	275,582	22,126	0.4	93,997	980,254	93,844	14.3	81,790	76,296	24,415
5	72,939	804,468	28,230	3.5	82,400	69,582	28,993	81,179	72,634	34,333	65,004	51,271	38,911	56,154	222,480	22,126	0.8	157,170	1,003,449	151,830	57.8	81,179	76,601	24,415
6	78,433	883,816	26,704	4.5	92,471	112,308	26,704	77,517	53,713	27,467	65,310	48,830	39,674	53,102	333,262	21,363	0.8	189,520	140,996	171,667	108.6	83,316	87,588	22,889
7	79,653	880,154	25,941	4.3	85,452	76,601	29,756	76,296	54,628	28,993	65,310	48,830	36,622	53,407	321,360	20,600	0.5	220,038	229,804	163,274	229.6	83,010	91,861	22,889
8	77,212	683,920	28,993	2.5	83,926	65,615	27,467	75,686	55,239	26,704	67,141	76,296	38,148	60,732	302,744	22,889	0.4	220,344	1,085,543	150,304	307.1	84,231	98,575	22,889
9	79,043	367,138	26,704	1.1	83,010	62,258	27,467	75,991	56,764	28,230	65,920	54,628	41,200	60,732	142,521	22,126	0.4	593,280	1,475,875	337,992	274.5	83,010	94,302	22,889
10	79,043	437,941	26,704	1	83,621	63,784	29,756	75,686	57,680	28,230	66,530	56,154	36,622	53,102	61,647	22,126	0.6	287,484	509,659	111,393	288.3	83,316	88,504	24,415
11	77,822	119,022	30,519	0.8	83,926	65,615	28,230	75,381	57,985	29,756	65,310	56,459	33,570	52,797	61,953	24,415	1.4	400,098	687,582	96,896	234.5	85,757	92,471	24,415
12	78,738	209,662	26,704	0.7	84,231	66,530	29,756	74,465	58,290	28,230	65,920	56,764	36,622	53,713	63,784	24,415	1.1	383,923	672,933	105,289	39.6	85,147	96,744	24,415
13	82,705	315,256	32,807	0.5	84,841	67,446	28,230	75,076	60,427	28,230	65,920	65,615	27,467	56,764	74,770	28,230	0.6	338,145	633,259	103,763	0.7	84,536	99,185	23,652
14	85,757	232,246	44,252		84,231	68,056	28,993	75,686	66,836	29,756	66,530	68,972	28,230	58,901	67,446	34,333		309,458	488,907	118,259	0.3	84,231	99,185	22,889
15	95,218	144,963	65,615		84,536	68,972	28,993	74,160	62,868	28,230	65,615	66,530	28,230	55,544	65,004	27,467		255,440	420,850	100,711		83,621	94,302	30,519
16	99,490	146,794	78,585		83,316	69,887	27,467	73,244	59,816	27,467	64,394	60,121	28,230	69,887	69,582	52,644		238,044	357,677	96,133		84,536	94,913	27,467
17	98,575	104,678	76,296		83,316	69,887	28,230	72,634	59,816	28,230	63,784	57,375	28,230	72,329	70,498	57,222		204,169	317,698	76,296		84,231	94,913	23,652
18	94,302	93,692	68,667		82,400	69,277	30,519	72,634	59,511	27,467	63,478	56,154	27,467	72,634	69,887	56,459		181,585	286,264	68,667		84,536	94,302	25,178
19	87,588	83,926	59,511		81,790	68,667	30,519	72,329	60,427	27,467	63,173	56,459	27,467	58,290	65,615	35,096		179,449	266,427	61,037		84,841	94,607	25,178
20	84,231	81,179	51,119		81,179	68,667	28,230	72,024	62,258	27,467	63,784	57,375	28,230	66,225	68,056	48,067		166,936	257,576	52,644		84,841	93,997	25,178
21	81,484	77,517	46,541					71,718	61,037	27,467	63,784	57,375	28,230	62,868	65,310	39,674		152,898	225,227	47,304		85,147	94,302	24,415
22	78,433	75,381	42,726					71,718	60,732	27,467	62,563	56,154	26,704	58,290	64,089	34,333		144,047	211,798	42,726		86,367	97,354	25,941
23	77,212	74,465	38,911					71,108	58,901	28,230	61,953	55,544	27,467	54,933	62,563	27,467		143,437	205,695	41,200		85,757	98,575	22,126
24	76,907	73,550	37,385					70,498	58,290	28,230	61,953	55,239	25,941	57,375	64,699	32,044		140,385	200,201	38,148		88,809	102,847	23,652
25	75,381	73,550	35,859					70,498	57,985	28,230	61,953	54,933	25,941	56,764	64,394	31,281		136,113	194,403	34,333		85,452	99,185	22,889
26	74,770	72,634	35,859					70,193	58,290	28,230	61,342	55,849	25,178	57,070	65,920	30,519		132,756	183,416	31,281		90,030	104,984	23,652
27	73,550	72,329	33,570					70,498	58,290	28,993	61,037	55,544	26,704	53,713	64,089	25,178		123,905	167,852	32,044		83,621	96,438	24,415
28	73,550	74,160	32,807					69,887	57,375	28,230	61,342	55,849	25,941	54,323	64,089	26,704		122,379	164,495	29,756		86,062	99,796	23,652
29	73,244	71,718	31,281					70,193	60,427	28,993	60,732	54,628	25,178	55,239	65,310	28,230		116,886	152,593	27,467		88,504	103,153	25,178
30								84,536	157,170	30,519				54,933	65,004	27,467						87,588	102,237	25,178
31								84,536	180,364	28,993				55,544	65,615	27,467						87,588	101,321	23,652
32																								
33																								
34																								

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:

	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Table 1: Summary of MIP Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

	MIP-15			LIF-39	MIP-16A			LIF-01	LIF-40	MIP-17			LIF-48	MIP-18			MIP-19			MIP-20			LIF-18	MIP-21		
Depth (ft)	PID	FID	XSD	%RE	PID	FID	XSD	%RE	%RE	PID	FID	XSD	%RE	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	%RE	PID	FID	XSD
	Apr 2012			Nov 2012	Apr 2012			Apr 2012	Nov 2012	Apr 2012			Nov 2012	Apr 2012			Apr 2012			Apr 2012			Apr 2012	Apr 2012		
1	84,536	168,462	22,126	1.9	97,964	95,828	28,993	1.1	0.8	110,477	107,425	35,859	4.2	107,120	118,107	22,126	65,310	55,849	25,941	64,089	272,530	19,837	1.9	59,206	51,881	20,600
2	89,419	4,382,763	61,800	1.6	95,828	101,321	27,467	1.1	1.6	110,477	108,036	38,148	0.5	107,730	116,276	26,704	65,920	57,375	24,415	67,446	726,341	20,600	1	63,173	91,556	26,704
3	170,904	4,383,679	159,459	2.7	94,913	100,406	27,467	3.1	4.2	118,107	136,723	38,148	0.5	111,087	103,458	26,704	65,004	56,764	20,600	69,582	339,366	21,363	0.9	64,394	80,569	25,941
4	180,670	5,254,066	152,593	0.7	149,846	185,858	28,230	115.2	5.6	120,548	134,892	38,148	0.5	111,698	119,938	26,704	67,751	78,127	22,126	66,836	76,601	21,363	0.8	75,381	93,081	46,541
5	141,606	7,839,595	94,607	12.1	165,105	209,662	27,467	119.4	69.7	122,379	183,416	37,385	0.7	112,613	115,970	28,993	78,127	142,521	22,126	72,329	404,065	33,570	6.1	83,621	130,924	58,748
6	229,499	13,498,947	48,067	8.9	166,021	211,798	25,941	94.6	90.6	121,769	389,111	36,622	18.5	114,139	137,028	29,756	83,316	153,508	21,363	68,361	140,690	29,756	0.7	77,822	96,744	46,541
7	285,653	11,372,417	41,963	11.3	164,800	207,831	27,467	98.6	55.4	133,671	2,002,319	36,622	10.8	113,224	124,210	28,993	66,530	65,615	21,363	65,615	66,225	31,281	0.9	62,258	56,459	28,993
8	263,680	488,296	32,044	0.9	159,307	198,065	25,941	101.2	61.8	256,661	509,354	32,807	37.9	109,867	104,373	28,993	65,920	69,277	22,126	68,667	99,796	34,333	0.8	63,173	55,544	30,519
9	266,121	888,699	33,570	1	194,708	258,492	28,993	68.6	60	259,713	481,582	40,437	1	110,782	104,984	31,281	66,836	66,836	21,363	63,478	63,478	22,126	0.8	63,173	57,680	32,044
10	231,941	393,078	35,859	0.4	222,785	302,133	27,467	33.3	0.9	251,778	370,495	38,911	0.4	112,918	108,341	32,044	66,530	70,193	19,837	63,478	61,647	22,126	0.8	87,893	67,751	77,822
11	199,286	310,984	32,044	0.4	223,090	299,692	28,230	0.9	0.6	213,935	350,352	45,778	0.4	114,444	110,172	30,519	66,530	69,277	20,600	62,868	60,427	20,600	0.7	101,627	73,550	90,793
12	207,526	307,016	80,111	0.4	223,090	299,387	26,704	1.1	0.4	189,215	282,601	69,430	0.4	114,139	110,477	32,044	79,043	133,671	24,415	63,173	60,732	22,126		156,865	92,166	139,622
13	228,584	276,803	108,341	0.4	219,733	289,926	28,993	1	0.3	170,904	221,564	67,904	0.3	116,581	115,055	33,570	71,718	104,373	22,126	65,920	115,055	23,652		3,365,276	1,797,845	1,499,985
14	245,369	274,361	125,126		177,618	223,090	28,230	1		159,917	192,267	74,770		112,003	109,561	29,756	66,225	69,277	22,126	61,953	62,563	22,126		2,595,294	1,186,865	1,276,437
15	269,478	361,034	145,726		177,007	222,175	28,230	1		151,372	186,163	64,852		108,951	106,510	28,230	66,530	69,887	22,889	61,342	61,342	19,837		673,849	275,582	370,037
16	276,803	364,086	139,622		162,969	199,896	26,704	0.9		146,184	171,819	63,326		111,698	109,256	33,570	66,530	69,277	22,126	61,647	61,953	22,889		695,517	281,686	380,718
17	305,490	304,575	170,141		162,969	198,065	29,756	0.9		139,164	166,631	54,933		117,191	114,750	38,148	67,446	70,193	22,889	61,953	63,173	21,363		551,775	229,194	312,052
18	227,973	229,194	123,600		151,067	177,313	28,230	1		133,976	160,833	54,170		119,022	116,886	35,859	67,141	72,939	21,363	61,647	63,784	21,363		252,693	125,431	174,718
19	177,618	209,052	77,822		147,099	169,378	27,467	0.9		134,281	162,053	47,304		113,529	111,393	31,281	65,615	68,361	19,074	62,258	64,089	20,600		122,990	82,705	98,422
20	215,461	215,766	118,259		146,794	169,378	31,281			133,366	164,495	41,963		112,918	111,698	30,519	67,141	71,108	24,415	62,868	66,225	24,415		185,247	104,984	132,756
21	189,520	199,286	98,422		141,301	161,138	28,230			128,788	158,391	43,489		122,684	122,074	35,096	67,446	71,108	20,600	63,173	66,530	22,126		162,053	96,744	119,785
22	186,468	197,455	93,081		139,164	156,865	30,519			126,347	156,255	39,674		117,496	115,055	29,756	66,530	70,803	20,600	61,953	64,089	20,600		140,080	90,640	106,052
23	155,644	189,825	66,378		135,197	150,761	28,230			123,905	154,118	41,963		118,717	116,581	28,230	66,225	69,582	19,074	61,953	64,394	20,600		104,373	77,517	79,348
24	161,748	184,942	82,400		134,587	149,541	26,704			124,210	159,307	41,963		120,853	119,938	28,230	66,225	70,498	21,363	64,699	68,972	23,652		82,705	70,498	65,615
25	156,560	171,819	76,296		134,281	148,015	26,704			122,990	158,696	41,963		117,496	116,581	32,807	67,141	71,413	20,600	64,699	66,836	22,126		98,880	76,601	77,059
26	157,170	176,397	73,244		131,230	143,437	28,230			122,074	160,222	40,437		118,107	118,107	28,230	68,056	73,244	19,837	61,037	64,394	22,889				
27	138,554	171,514	55,696		129,704	140,385	26,704			122,684	161,748	39,674		121,464	122,684	29,756	66,836	72,024	19,074	60,732	64,089	21,363				
28	147,404	167,852	66,378		126,652	136,418	24,415			122,990	162,664	39,674		121,769	123,905	28,993	67,141	72,939	21,363	62,868	68,056	23,652				
29	136,113	158,086	61,037		127,262	137,638	26,704			121,464	160,222	40,437		117,191	116,581	29,756	66,530	72,634	22,126	60,732	65,004	22,889				
30	129,093	145,878	57,222							120,853	159,001	39,674		114,750	114,139	26,704				61,647	67,141	22,126				
31	123,600	145,878	46,541							114,444	146,794	31,281								61,647	66,530	20,600				
32	135,807	159,612	56,459																							
33	166,021	318,918	60,274																							
34	159,612	274,972	57,985																							

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:

	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Table 1: Summary of MIP Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

	MIP-22			MIP-23			LIF-16	MIP-24			MIP-25			MIP-26			MIP-27			MIP-28			LIF-75	MIP-29		
Depth (ft)	PID	FID	XSD	PID	FID	XSD	%RE	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	%RE	PID	FID	XSD
	Apr 2012			Apr 2012			Apr 2012	Apr 2012			Apr 2012			Apr 2012			Apr 2012			Apr 2012			Nov 2012	Apr 2012		
1	61,342	360,424	24,415	56,154	1,865,902	21,363	25.9	56,154	1,567,126	19,074	45,473	36,927	20,600	49,440	53,407	19,074	44,862	39,674	18,311	47,914	166,631	23,652	2.6	53,102	665,304	22,126
2	83,010	478,835	24,415	60,427	381,481	23,652	56	61,647	1,749,321	26,704	49,135	91,861	20,600	61,037	78,127	22,126	45,167	40,284	19,837	52,492	724,204	24,415	2.6	55,849	332,957	23,652
3	77,212	462,355	27,467	65,615	609,149	28,230	30.7	63,784	174,871	28,993	57,070	181,280	19,074	55,544	56,459	20,600	44,252	38,148	19,074	47,609	232,246	26,704	1.5	54,628	203,864	28,993
4	70,498	142,216	25,941	68,056	976,287	25,941	20.9	73,244	160,833	31,281	57,375	181,585	20,600	50,356	44,557	21,363	44,557	38,148	20,600	54,018	266,427	25,178	1.1	55,544	318,308	23,652
5	69,582	192,267	22,889	70,803	1,232,032	23,652	20.3	67,141	116,581	23,652	56,459	84,536	23,652	47,304	41,200	19,074	45,473	39,674	25,178	53,102	201,117	23,652	0.5	58,901	321,970	22,126
6	76,601	182,501	23,652	67,751	1,162,755	22,126	21	59,816	63,784	21,363	50,966	65,920	22,126	47,304	43,336	19,837	45,167	42,116	19,837	53,102	103,458	24,415	0.5	53,102	85,147	23,652
7	67,141	131,230	23,652	72,329	2,312,693	21,363	20.5	61,342	77,517	22,889	47,304	51,576	20,600	49,745	75,076	21,363	45,167	40,284	24,415	48,830	68,361	22,126	0.4	52,187	64,699	22,126
8	64,394	110,782	22,889	71,718	1,821,955	22,126	22.2	62,563	76,907	22,126	46,083	42,421	17,548	48,524	60,121	17,548	45,473	41,505	21,363	50,356	75,686	22,889	0.5	52,187	56,764	22,889
9	62,563	103,458	22,126	72,634	637,226	24,415	21.5	62,258	78,433	22,889	45,473	42,726	17,548	46,083	41,810	18,311	46,083	47,304	20,600	47,914	50,661	21,363	0.4	51,881	55,544	25,178
10	63,173	121,464	22,126	65,615	118,107	22,889	21.3	56,154	56,764	22,889	46,388	55,239	19,074	45,778	51,576	18,311	47,914	44,862	20,600	47,914	56,459	23,652	0.4	52,187	57,375	25,178
11	63,478	113,529	25,941	62,563	68,361	22,126	1.2	55,849	54,018	23,652	47,304	61,342	18,311	46,999	56,764	18,311	47,609	58,596	28,993	48,219	61,037	21,363	0.4	53,713	76,601	25,178
12	73,550	141,911	38,148	61,037	68,056	23,652		55,849	56,154	26,704	46,999	54,323	18,311	45,167	44,252	19,837	48,219	52,187	21,363	59,816	159,001	22,126	0.4	57,070	107,120	26,704
13	65,615	109,867	30,519	61,037	67,751	22,889		55,849	86,673	26,704	45,778	48,524	18,311	44,862	42,726	22,889	47,609	51,576	20,600	48,524	54,018	21,363	0.4	52,492	61,037	24,415
14	65,310	109,561	26,704	60,732	66,225	23,652		55,544	61,953	26,704	45,473	48,830	19,074	44,862	43,947	21,363	47,304	55,544	20,600	47,609	54,323	21,363		52,492	64,089	25,178
15	68,361	160,527	25,178	60,732	68,361	23,652		55,544	56,459	35,096	45,778	50,661	19,074	44,862	43,947	20,600	46,999	48,524	20,600	46,083	55,239	21,363		52,797	63,784	25,178
16	63,784	105,289	25,178	60,732	67,446	23,652		55,544	57,070	33,570	46,388	50,356	19,074	44,862	46,999	21,363	46,693	43,947	20,600	46,083	55,239	22,126		52,492	65,004	25,178
17	62,258	101,016	24,415	61,037	66,836	23,652		54,933	57,375	33,570	47,304	50,966	18,311	44,862	46,388	20,600	47,609	46,083	29,756	46,083	57,375	21,363		52,797	64,089	26,704
18	61,647	99,796	24,415	62,563	69,277	23,652		54,323	57,375	25,178	46,388	50,661	20,600	44,252	48,524	19,074	47,914	46,999	28,230	46,999	57,985	22,889		53,102	63,784	24,415
19	60,732	99,490	23,652	62,258	68,667	23,652		54,323	57,070	27,467	45,778	50,661	19,837	44,557	48,219	19,074	46,999	46,388	23,652	48,219	61,953	21,363		53,713	65,920	25,941
20	61,342	99,490	22,889	61,342	67,751	24,415		53,713	56,154	21,363	47,304	69,887	18,311	44,557	47,609	20,600	48,830	50,356	33,570	46,693	58,596	19,837		53,713	66,225	25,941
21	61,037	98,575	25,941	60,732	67,141	23,652		54,323	57,985	28,230	46,388	56,459	19,837	43,947	47,609	19,837	49,135	54,628	34,333	46,388	59,816	24,415		53,102	65,310	24,415
22	60,732	97,964	22,126	60,732	66,836	26,704		54,933	58,290	20,600	46,083	51,271	19,837				49,135	54,933	25,178	45,778	57,985	22,889		53,407	65,004	24,415
23	61,037	97,659	23,652	60,732	66,836	23,652		56,154	60,732	24,415	45,778	54,018	19,074				49,135	55,239	32,807	45,778	61,342	22,889		53,713	66,836	26,704
24	61,342	97,659	23,652	59,511	66,225	22,126		55,239	60,121	25,178	46,693	61,037	25,178				48,830	54,933	31,281	47,609	104,068	19,837		54,018	67,446	25,178
25	60,732	96,133	24,415	59,511	66,225	23,652		55,239	61,342	32,044	46,693	54,628	19,837				48,830	54,628	28,230	46,693	58,290	22,889		53,713	68,056	26,704
26	61,342	97,659	22,889					53,407	56,764	22,126	46,693	59,206	20,600				48,219	54,628	28,993	44,862	54,933	19,074		53,102	69,582	25,178
27	61,037	96,438	22,889					53,102	55,849	20,600	45,473	54,018	19,074				48,830	58,596	34,333							
28	61,037	94,913	25,178					53,407	56,459	21,363	46,083	51,271	18,311				50,661	59,511	28,993							
29	60,121	94,913	22,126					53,102	55,849	20,600	46,388	56,459	19,074				50,661	57,070	21,363							
30	60,121	94,913	22,126					53,102	56,154	19,074	46,693	54,018	19,837				50,966	52,492	21,363							
31																										
32																										
33																										
34																										

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:			
	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Table 1: Summary of MIP Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

	MIP-30			LIF-15	MIP-31			MIP-32			LIF-03	MIP-33			MIP-34			MIP-35			MIP-36		
Depth (ft)	PID	FID	XSD	%RE	PID	FID	XSD	PID	FID	XSD	%RE	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD
	Apr 2012			Apr 2012	Apr 2012			Apr 2012			Apr 2012	Apr 2012			Apr 2012			Apr 2012			Apr 2012		
1	52,492	54,323	22,889	7.6	65,920	59,206	20,600	66,836	965,300	22,126	10.7	53,713	42,421	17,548	59,816	311,899	19,074	55,849	89,419	19,837	48,219	44,862	18,311
2	54,018	904,569	22,889	4.4	75,381	87,893	25,941	66,836	1,384,014	22,889	11.8	57,070	43,336	24,415	71,108	472,427	34,333	57,070	165,410	22,889	61,953	133,061	22,126
3	59,206	1,297,342	24,415	2.4	90,030	101,321	25,178	67,141	897,855	22,889	14	115,665	102,237	82,400	61,037	299,387	23,652	56,154	165,410	22,126	59,511	114,444	25,941
4	85,452	2,801,294	24,415	2.3	101,627	122,074	25,941	65,615	1,958,068	22,126	12.3	125,126	102,237	96,896	71,718	2,643,818	28,230	56,459	215,766	22,889	61,342	85,757	29,756
5	122,379	1,822,260	25,178	2.1	109,867	158,696	25,941	65,004	1,206,702	22,889	12.7	83,926	68,361	57,985	71,108	1,633,656	31,281	57,985	446,181	22,889	54,933	73,244	27,467
6	141,301	1,329,386	28,230	35.2	113,834	197,150	24,415	66,530	1,837,214	21,363	12.8	65,615	67,141	38,911	58,901	162,969	23,652	67,141	539,872	24,415	49,745	52,797	22,126
7	310,678	1,694,998	28,230	67.4	113,834	194,403	24,415	67,141	630,512	21,363	10.2	70,193	78,127	39,674	58,290	146,184	23,652	65,310	365,001	21,363	47,609	47,609	21,363
8	358,592	1,386,761	26,704	30.5	107,730	133,366	21,363	68,972	275,582	22,126	13.6	73,855	87,283	44,252	58,596	138,554	23,652	61,037	184,332	23,652	48,219	48,524	20,600
9	360,424	3,832,820	25,941	8.5	101,321	122,684	24,415	71,718	233,161	22,126	13	69,277	59,511	40,437	58,901	153,203	24,415	55,544	63,784	22,126	53,713	80,264	27,467
10	334,788	3,986,938	31,281	0.8	97,354	114,139	25,941	73,244	429,395	22,126	85.3	90,335	68,056	66,378	65,920	234,382	33,570	54,628	61,953	21,363	51,271	52,187	26,704
11	286,874	810,266	26,704	0.6	93,387	105,289	28,993	76,601	1,043,123	22,889	89.7	203,864	150,151	145,726	79,653	223,396	53,407	54,018	53,407	22,126	49,440	54,628	22,889
12	234,077	544,145	24,415	0.5	90,030	99,490	32,807	76,907	416,883	23,652	21.6	288,400	163,884	189,978	109,867	216,681	86,215	53,407	49,745	22,126	50,356	54,628	22,889
13	196,844	476,699	24,415	0.6	90,945	96,744	40,437	77,822	206,000	28,230	21.1	425,428	184,332	256,355	201,117	394,299	146,489	54,018	51,881	22,889	52,187	64,089	25,941
14	170,293	359,508	23,652		99,796	99,185	57,985	83,621	191,961	40,437	0.8	1,112,094	438,246	476,089	1,085,543	2,003,235	492,111	54,018	57,070	22,889	52,797	60,121	25,941
15	151,372	310,068	23,652		181,890	138,859	141,911	104,068	176,092	71,718	0.9	1,853,084	717,795	641,652	1,318,094	988,494	542,466	53,713	52,797	20,600	51,881	55,239	25,178
16	133,061	276,193	24,415		191,046	132,450	152,593	133,366	170,904	102,237	0.9	1,677,297	734,886	571,459	1,189,917	592,975	491,348	53,713	56,154	24,415	51,271	55,544	23,652
17	128,788	238,960	22,889		177,923	121,158	140,385	139,470	140,996	109,867	0.9	1,418,500	563,982	504,318	955,840	472,121	411,237	53,407	55,544	22,889	51,576	56,459	25,178
18	120,243	219,733	24,415		162,664	113,224	127,415	137,944	124,821	108,341	0.8	737,327	295,419	297,555	677,511	313,730	318,918	54,323	56,154	23,652	50,356	55,849	25,941
19	110,172	199,896	25,178		151,982	108,341	122,074	116,276	102,237	86,978	0.8	328,379	143,742	170,904	502,945	240,486	255,593	54,018	56,459	20,600	50,356	56,154	22,889
20	105,899	187,689	22,889		129,398	100,406	101,474	97,354	91,556	65,615		189,520	98,270	113,681	355,541	173,345	197,607	54,018	54,933	21,363	49,135	55,544	22,889
21	101,321	175,787	24,415		129,093	100,406	98,422	90,945	88,198	58,748		149,541	84,841	95,370	270,394	139,470	160,985	54,018	54,933	27,467	49,745	55,239	22,889
22	96,133	167,241	25,178		110,782	94,913	80,874	87,588	86,062	48,830		133,976	80,874	86,978	224,006	121,769	139,622	54,018	56,764	23,652	48,830	55,239	23,652
23	95,218	164,495	22,889		96,438	88,504	63,326	83,010	82,400	45,778		124,210	78,127	80,874	186,468	107,425	119,022	54,018	54,628	19,837	48,524	56,764	20,600
24	90,640	153,508	23,652		88,809	83,316	56,459	83,010	82,705	40,437		107,425	73,550	73,244	160,222	97,964	107,578	53,102	55,849	22,126	48,524	55,849	21,363
25	86,673	145,878	23,652		85,147	83,316	48,830	80,569	81,484	37,385		96,744	70,498	65,615	127,262	83,926	89,267	54,018	60,121	22,126	47,609	55,239	20,600
26	84,536	138,554	24,415		81,790	81,790	41,200	79,653	79,958	32,807		89,724	70,193	64,089	102,847	75,381	73,244	54,018	56,459	22,126	48,524	55,544	23,652
27					77,517	76,907	37,385	76,907	78,127	32,807		85,757	68,056	57,985	91,861	71,108	66,378	53,102	55,849	28,230	48,219	55,544	22,889
28					75,686	75,381	32,807	73,550	74,770	31,281		83,010	67,751	57,222	71,718	64,394	51,119	52,492	56,154	24,415	48,524	57,070	24,415
29					78,433	79,958	29,756	72,939	73,244	32,044		77,517	67,446	51,119	84,536	77,212	60,274	52,492	55,544	20,600	48,524	58,596	23,652
30					76,601	78,433	27,467	71,413	72,939	30,519		72,634	65,004	45,015	72,329	69,582	46,541	53,713	58,901	20,600	48,524	61,037	24,415
31					74,160	76,907	25,941					66,225	62,563	38,148	68,667	63,478	43,489	53,102	56,154	20,600	48,219	58,290	24,415
32																							
33																							
34																							

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:			
	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Table 1: Summary of MIP Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

	MIP-37			MIP-38			MIP-39			LIF-32	MIP-40			MIP-41			MIP-42			LIF-53	MIP-43			MIP-44			LIF-25
Depth (ft)	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	%RE	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	%RE	PID	FID	XSD	PID	FID	XSD	%RE
	Apr 2012			Apr 2012			Apr 2012			Nov 2012	Apr 2012	Apr 2012	Apr 2012	Apr 2012			Apr 2012			Nov 2012	Apr 2012			Apr 2012			Nov 2012
1	53,407	72,939	19,837	61,342	95,523	25,178	56,764	500,198	22,126	5.4	43,641	42,116	17,548	56,154	63,478	19,074	54,018	56,154	20,600	0.7	48,219	47,609	19,837	54,933	1,045,869	22,889	4.3
2	58,901	95,218	21,363	66,836	97,049	22,889	58,290	404,981	29,756	0.7	42,421	43,641	20,600	58,290	61,342	19,074	51,881	56,764	20,600	0.5	48,219	48,219	22,126	54,323	1,149,022	25,178	0.9
3	69,277	86,367	25,941	61,953	84,536	24,415	65,310	1,034,883	25,178	0.7	43,336	45,778	19,837	56,154	61,037	19,837	52,187	56,154	22,126	0.5	47,914	47,609	20,600	52,187	152,287	24,415	0.7
4	56,459	72,329	22,889	67,446	105,594	24,415	67,446	4,383,374	24,415	1.2	46,083	56,459	17,548	59,206	78,738	19,837	52,797	65,615	20,600	0.4	47,914	47,914	19,837	51,881	230,415	24,415	0.4
5	58,901	97,354	25,178	60,732	71,108	24,415	60,732	364,696	21,363	2.4	43,947	51,576	16,785	60,121	79,958	19,074	53,713	69,277	19,837	0.7	47,914	55,544	22,126	52,492	956,145	25,178	0.7
6	53,102	65,920	21,363	61,342	69,887	22,889	61,647	108,951	21,363	2.2	43,336	54,018	18,311	61,342	97,964	19,074	52,187	57,680	20,600	39.8	50,356	206,305	27,467	54,018	176,092	25,941	0.6
7	52,797	57,375	21,363	64,699	78,433	25,178	64,699	212,714	22,126	6.8	47,304	70,803	17,548	59,511	83,316	19,837	57,070	101,321	20,600	16.7	49,745	826,136	22,889	62,563	370,800	25,178	1.8
8	53,102	55,544	21,363	62,563	69,277	24,415	63,784	348,521	20,600	5.1	53,102	89,724	22,889	60,732	104,984	19,074	68,361	289,315	19,837	6.5	49,440	834,071	19,837	54,018	87,283	27,467	2.3
9	54,323	57,985	22,889	61,037	67,141	25,178	63,478	1,519,211	22,126	3.7	49,135	66,836	27,467	61,953	125,126	19,837	70,193	273,751	20,600	6.5	48,524	71,718	20,600	52,492	75,076	27,467	1.4
10	58,290	63,478	23,652	61,037	70,193	25,178	65,004	4,383,068	25,178	1.4	50,966	55,239	29,756	53,407	66,225	19,074	68,667	199,896	19,074	0.9	47,609	53,407	20,600	50,966	66,225	26,704	1.1
11	61,342	66,225	23,652	62,258	70,803	25,941	65,920	419,630	27,467	1.2	55,544	57,375	31,281	51,881	53,407	17,548	69,887	154,118	20,600	0.6	48,830	61,953	20,600	50,661	72,939	28,230	0.5
12	64,089	85,147	22,889	64,394	77,517	28,993	68,056	239,265	35,096	0.5	56,154	57,680	28,230	52,797	57,985	19,074	64,089	84,841	19,837	0.6	48,830	56,154	19,837	50,661	70,803	27,467	0.4
13	62,258	64,089	23,652	72,634	88,198	45,015	148,930	680,258	114,444	0.4	57,070	63,173	31,281	55,544	88,809	20,600	62,258	72,939	20,600	0.4	49,135	77,212	22,126	52,187	74,465	26,704	0.4
14	62,258	63,784	25,178	71,718	76,296	43,489	408,032	963,164	304,422		57,680	62,868	32,044	55,544	81,179	21,363	59,816	71,108	21,363		48,524	56,459	20,600	56,459	94,302	25,941	
15	60,732	63,478	23,652	69,277	75,076	37,385	471,206	704,978	311,289		56,459	59,206	24,415	51,576	53,713	19,837	57,375	68,667	19,837		50,050	69,887	24,415	56,154	86,062	28,230	
16	61,342	65,615	22,889	68,361	76,296	34,333	487,381	777,612	312,815		61,647	92,166	25,178	51,271	54,018	19,074	56,154	65,615	19,837		58,901	64,394	38,911	64,699	84,841	26,704	
17	61,647	66,225	22,126	66,836	74,465	32,807	472,121	274,056	302,896		57,680	65,004	19,074	51,271	53,713	18,311	54,628	64,699	19,074		61,953	65,920	45,015	64,699	83,926	26,704	
18	61,953	68,056	22,126	64,394	72,024	30,519	395,215	224,616	257,118		56,459	57,070	19,837	51,576	54,933	18,311	54,628	63,784	22,126		60,732	67,141	44,252	61,037	77,517	25,941	
19	61,647	67,751	21,363	63,478	72,939	28,993	302,438	180,975	203,711		56,459	56,459	17,548	51,881	54,323	19,074	54,018	63,173	19,837		54,323	64,089	28,993	59,511	75,991	24,415	
20	61,953	67,446	28,230	65,920	77,822	29,756	237,129	149,236	167,852		56,154	57,985	18,311	50,661	53,407	17,548	53,713	62,563	20,600		57,680	64,394	35,859	58,290	73,855	26,704	
21	61,342	66,225	23,652	61,953	71,718	28,230	213,630	136,723	151,830		56,764	63,173	19,074	51,271	54,018	16,785	53,407	60,732	21,363		50,050	58,901	25,941	59,206	77,822	26,704	
22	62,258	85,757	24,415	60,427	68,667	27,467	173,345	117,801	132,756		57,070	60,427	18,311	50,966	53,407	18,311	52,492	59,511	22,126		52,797	59,206	32,044	58,596	76,296	25,941	
23	61,037	74,770	25,178	60,121	68,667	25,178	152,593	108,341	119,022		57,070	60,121	16,785	50,050	52,492	18,311	51,881	59,511	20,600		52,797	60,121	28,993	57,985	76,601	26,704	
24	61,037	67,446	25,178	59,511	68,667	25,941	144,963	102,847	115,207		56,459	57,070	19,837	50,966	54,018	19,074	52,492	62,258	20,600		52,187	60,427	27,467	57,375	75,686	26,704	
25	59,511	67,141	24,415	59,816	70,193	25,941	115,360	90,640	96,133		56,459	57,375	18,311	50,050	53,713	19,074	52,492	60,732	21,363		52,187	58,901	26,704	57,985	77,822	26,704	
26	59,206	66,225	24,415	60,121	72,329	26,704	89,724	78,738	73,244		68,972	70,803	18,311	50,661	57,985	19,074	51,881	60,121	19,837		48,830	57,070	21,363	59,816	79,348	28,230	
27	58,596	69,277	22,889	61,342	74,465	26,704	86,367	77,212	68,667		66,530	67,751	19,074	50,050	54,628	17,548	50,966	60,121	19,837		50,661	58,596	25,178	58,596	77,212	26,704	
28	58,290	66,836	23,652	58,596	69,887	25,941	80,569	75,076	62,563		59,206	62,563	28,230	49,745	54,933	17,548	52,492	61,037	20,600		50,966	60,121	25,941	57,985	76,601	27,467	
29	58,596	66,836	25,178	57,375	67,751	25,178	75,686	73,550	57,985		58,596	62,563	31,281	50,661	55,849	17,548	51,881	61,037	20,600		53,102	62,868	25,178	57,985	76,907	26,704	
30	57,985	65,615	25,178				70,803	75,686	53,407		59,511	61,037	32,044	50,966	57,375	19,074	53,102	61,647	22,126		51,881	62,258	21,363	57,070	75,991	26,704	
31	57,985	65,310	24,415				69,582	72,939	49,593		58,290	59,816	17,548	50,661	55,239	17,548					53,102	64,089	24,415	56,764	75,076	26,704	
32																					52,492	62,868	22,889				
33																											
34																											

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:			
	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Table 1: Summary of MIP Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

	MIP-45			MIP-46			MIP-47			MIP-48			MIP-49			MIP-50			MIP-51			MIP-52		
Depth (ft)	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD
	Apr 2012			Apr 2012			Apr 2012			Apr 2012			Apr 2012			Apr 2012			Apr 2012			Nov 2012		
1	63,478	84,841	23,652	57,680	64,089	25,941	56,154	71,413	38,148	40,590	40,590	19,074	55,849	122,684	25,178	51,576	64,394	29,756	48,830	72,634	34,333	29,221	25,483	16,022
2	64,089	92,166	25,941	56,764	76,296	28,230	56,154	90,335	38,148	41,505	44,252	19,074	56,459	138,249	23,652	52,492	80,264	31,281	50,966	151,677	32,807	29,450	25,941	16,785
3	74,770	166,326	26,704	58,901	178,838	28,993	57,070	100,711	38,148	41,505	50,050	21,363	50,356	79,653	23,652	60,121	136,723	28,230	49,745	81,484	32,044	35,707	28,916	15,259
4	66,530	102,542	25,178	65,004	294,198	28,230	61,037	599,994	78,585	47,914	70,498	25,178	47,304	67,141	24,415	66,530	190,436	28,993	51,271	101,627	32,044	43,489	33,189	22,126
5	60,427	78,127	25,941	61,953	209,052	26,704	62,258	1,877,804	74,770	45,778	87,893	24,415	47,609	70,193	25,178	56,764	125,126	34,333	50,661	96,438	32,044	34,944	28,840	16,785
6	59,206	75,381	25,941	60,427	86,978	27,467	61,342	1,640,675	70,956	43,641	61,953	22,126	47,609	71,108	25,941	52,492	88,198	29,756	49,135	84,231	32,807	35,096	36,317	16,022
7	58,596	71,718	26,704	73,550	98,880	26,704	56,764	136,418	41,200	43,641	61,953	23,652	47,609	67,446	24,415	51,271	73,550	30,519	49,135	79,958	31,281	50,356	56,459	19,074
8	57,680	69,277	25,941	72,024	94,913	26,704	66,836	119,327	32,807	43,641	62,868	21,363	47,304	66,225	25,941	52,492	87,283	32,807	49,135	80,569	30,519	33,265	31,434	15,259
9	60,732	73,550	25,941	63,478	111,698	26,704	61,037	121,158	34,333	43,336	59,511	19,837	47,609	65,310	26,704	51,881	77,822	32,044	50,050	83,316	32,044	36,927	35,401	15,259
10	60,121	76,296	25,178	61,647	82,400	27,467	57,375	161,443	28,993	42,421	56,154	24,415	47,304	65,310	25,178	51,576	74,160	35,859	49,440	83,010	32,044	36,622	34,181	16,022
11	59,816	77,822	25,178	60,732	80,264	27,467	55,544	120,548	28,993	42,421	54,628	20,600	46,999	66,225	25,178	50,661	73,550	33,570	58,596	105,594	32,044	34,791	34,181	15,259
12	60,121	73,244	26,704	60,427	79,653	28,993	53,713	80,874	25,941	43,031	58,596	22,889	48,219	69,277	26,704	49,745	73,855	36,622	57,070	99,796	32,807	168,462	331,126	27,467
13	58,901	75,991	25,941	60,732	80,264	26,704	53,713	75,686	28,230	42,726	57,070	24,415	49,440	70,193	27,467	49,745	74,160	37,385	51,271	86,367	32,044	37,843	44,252	16,785
14	61,342	82,400	25,178	60,427	79,348	28,993	54,018	77,822	27,467	42,421	57,070	22,889	49,745	72,024	26,704	49,745	74,465	29,756	50,050	85,452	32,044	34,181	32,655	17,548
15	61,953	90,335	27,467	59,816	79,653	27,467	53,713	75,686	27,467	42,116	57,070	22,126	49,440	71,718	28,993	51,271	79,043	40,437	49,745	86,367	35,859	33,570	32,044	15,259
16	61,342	85,147	29,756	59,816	79,043	28,993	54,933	75,686	28,993	42,116	57,070	21,363	50,661	73,244	25,941	51,576	87,283	38,148	49,440	85,757	31,281	33,570	31,739	14,496
17	59,206	76,296	34,333	59,816	78,433	28,230	53,102	72,329	26,704	42,726	57,375	21,363	51,576	75,076	28,230	60,732	99,796	38,911	49,135	86,367	32,044	32,655	30,213	16,022
18	59,206	78,433	38,911	58,901	78,127	31,281	52,797	71,413	25,941	42,726	57,375	22,126	50,966	74,160	29,756	63,173	102,237	41,963	48,830	86,978	32,044	32,655	30,824	13,733
19	56,459	72,634	24,415	57,985	77,822	27,467	52,492	70,193	26,704	43,336	57,985	22,126	51,271	73,244	25,178	52,492	83,010	31,281	48,830	86,062	32,044	32,044	30,213	16,022
20	56,154	72,939	24,415	57,985	78,127	25,941	51,881	68,667	27,467	42,421	56,459	22,126	51,881	75,991	29,756	51,576	79,958	32,044	48,524	87,588	32,807	30,213	30,519	15,259
21	56,459	72,939	25,178	57,985	78,738	29,756	52,187	69,277	26,704	42,421	56,764	21,363	51,576	74,770	27,467	51,576	78,433	29,756	48,219	87,588	32,807	30,213	29,908	15,259
22	57,680	77,517	25,178	58,290	78,738	26,704	51,881	69,277	25,941	42,726	62,258	21,363	50,966	72,939	28,230	51,576	79,348	33,570	47,609	86,062	32,044	30,824	29,908	17,548
23	57,375	78,127	25,178	56,459	75,381	25,941	52,797	73,550	26,704	42,421	56,764	21,363	50,661	74,465	27,467	51,271	79,348	36,622	47,304	88,504	32,807	30,519	30,519	16,022
24	57,375	76,601	25,178	56,764	76,296	26,704	51,881	68,667	26,704	42,726	57,375	22,889	51,881	74,465	28,993	51,271	79,348	30,519	47,609	90,335	33,570	31,129	30,213	15,259
25	57,070	75,686	25,941	56,764	76,907	28,993	52,797	79,958	27,467	43,336	57,680	22,126	51,881	75,686	28,993	51,271	79,653	30,519	47,304	88,809	35,096	31,739	30,824	16,022
26	57,375	76,296	25,178	57,070	75,991	28,230	52,492	68,667	27,467	43,336	58,290	25,941	51,271	75,686	26,704	51,576	80,874	32,807	46,999	89,724	33,570	31,129	30,213	18,311
27	60,732	81,179	25,178	57,070	78,738	26,704	51,881	68,667	25,941	43,336	61,953	25,178	52,187	76,601	26,704	52,187	83,926	35,859	47,304	89,114	33,570	30,519	29,603	16,022
28	60,732	80,874	25,178	57,375	77,517	25,941	51,881	68,056	25,941	43,336	62,563	29,756	52,492	76,907	27,467	50,356	83,010	31,281	46,388	86,367	39,674	30,213	29,298	15,259
29	59,816	82,095	24,415	57,375	81,484	27,467	51,271	66,836	25,941	43,336	60,427	25,941	52,492	77,822	28,993	50,356	82,705	35,859	45,473	86,367	39,674	31,434	29,908	15,259
30	60,732	81,790	23,652	57,375	77,822	25,941	51,576	68,361	26,704	44,252	58,901	26,704	52,797	78,127	27,467	50,050	83,926	35,096	46,083	86,367	34,333			
31							51,271	72,024	26,704	43,947	60,427	25,941	53,102	79,043	26,704	50,050	80,569	32,807	46,999	87,588	33,570			
32							51,576	66,836	26,704				53,407	78,127	27,467	51,881	82,095	32,044						
33																63,173	103,763	32,807						
34																								

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:

	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Table 1: Summary of MIP Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

	MIP-53			MIP-54			LIF-78	MIP-55			MIP-56			LIF-65	MIP-57			LIF-10	MIP-58			MIP-59			MIP-60		
Depth (ft)	PID	FID	XSD	PID	FID	XSD	%RE	PID	FID	XSD	PID	FID	XSD	%RE	PID	FID	XSD	%RE	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD
	Nov 2012			Nov 2012			Nov 2012	Nov 2012			Nov 2012			Nov 2012	Nov 2012			Apr 2012	Nov 2012			Nov 2012			Nov 2012		
1	31,739	25,330	16,785	5,264	6,638	16,785	2.6	24,415	22,889	16,785	21,058	23,499	13,733	0.9	71,108	32,960	12,207	4.2	59,206	32,350	12,970	50,966	131,535	28,993	54,628	31,129	18,311
2	30,213	24,110	16,785	7,401	109,485	16,022	0.5	24,415	22,584	16,022	21,058	135,502	16,022	0.6	74,465	568,255	13,733	1.1	59,511	32,350	12,970	55,849	408,643	28,993	78,127	36,012	42,726
3	28,993	25,025	22,126	10,376	266,579	20,600	0.7	23,804	22,279	15,259	22,279	2,188,788	16,022	0.7	86,367	1,279,336	18,311	0.8	58,901	31,739	12,970	63,173	251,473	26,704	66,530	32,960	32,044
4	28,687	24,415	28,993	12,741	98,270	18,311	0.5	26,856	24,110	13,733	430,616	826,441	13,733	4.6	224,616	949,126	24,415	3.3	59,511	31,434	16,022	61,037	339,671	24,415	62,258	30,213	29,756
5	36,927	27,161	28,230	45,473	104,678	22,126	0.8	42,116	55,239	14,496	673,544	420,545	16,022	8	580,462	1,934,568	26,704	6.2	57,985	32,044	25,178	63,784	216,071	28,230	67,446	30,519	38,148
6	29,298	25,025	16,022	95,752	460,219	50,356	1.6	54,628	51,271	16,785	1,428,266	477,004	14,496	7.1	770,592	310,068	16,785	12.1	77,822	42,421	26,704	65,615	393,689	28,230	135,197	46,693	105,289
7	39,064	28,993	16,785	333,262	535,524	59,511	2.3	26,246	23,804	19,074	1,768,548	526,444	13,733	4	833,460	331,431	16,022	11.8	73,550	39,674	25,178	55,239	86,367	27,467	136,113	34,486	108,341
8	65,920	46,999	16,785	345,088	108,493	18,311	6.4	27,772	25,941	15,259	3,136,692	843,532	15,259	1	891,751	265,511	15,259	8.4	63,478	32,960	26,704	60,427	46,388	13,733	110,477	32,044	86,978
9	69,277	55,239	18,311	289,239	100,406	17,548	1.4	28,993	25,025	15,259	3,055,513	819,727	16,785	0.5	1,067,537	327,158	16,022	5.5	60,732	31,434	24,415	62,258	33,570	14,496	150,151	38,453	113,681
10	80,264	65,310	16,785	213,858	67,446	19,074	0.8	28,382	25,330	14,496	2,587,970	680,563	15,259	0.4	1,072,420	304,880	16,022	0.9	63,478	33,570	25,941	62,868	32,960	11,444	171,209	37,843	122,074
11	65,615	56,459	16,022	175,329	56,688	16,785	0.5	27,467	24,415	12,207	2,013,916	528,275	13,733	0.4	1,061,434	296,945	16,785	0.6	63,478	32,655	26,704	62,258	32,350	14,496	330,515	41,200	199,896
12	123,295	97,964	16,022	140,309	46,922	19,074	0.6	28,993	26,246	13,733	1,552,171	428,480	13,733	0.5	1,000,702	313,425	21,363		63,173	34,181	24,415	62,258	32,350	12,970	1,653,798	115,665	666,066
13	40,284	36,927	17,548	111,774	39,445	17,548	0.6	28,382	26,246	12,970	1,244,850	328,684	15,259	0.5	910,367	269,478	21,363		63,784	35,096	21,363	61,647	32,044	12,207	1,630,909	102,237	597,400
14	32,044	28,077	16,022	91,632	35,936	16,785		28,687	25,941	12,970	1,011,689	274,667	13,733		725,120	196,539	23,652		61,647	33,265	19,837	61,953	31,739	12,970	3,850,520	206,305	1,005,585
15	30,824	28,077	15,259	75,381	29,374	16,022		25,941	24,110	11,444	899,380	248,421	14,496		627,461	173,040	19,074		63,478	32,350	13,733	61,342	32,960	13,733	3,443,404	181,890	885,800
16	29,298	26,246	19,837	66,607	27,085	16,785		26,551	24,720	12,970	757,775	206,000	12,970		558,184	154,424	22,889		61,953	32,350	13,733	58,290	32,044	12,207	3,173,314	166,021	801,111
17	28,382	25,636	16,785	55,315	21,058	16,022		26,551	25,330	16,022	688,803	187,689	12,970		507,828	137,638	18,311		61,953	32,960	16,022	58,901	31,434	12,207	2,691,733	143,132	691,244
18	27,772	25,941	16,022	50,508	19,684	15,259		25,025	24,110	12,207	622,272	171,514	12,207		471,206	129,093	17,548		62,563	32,960	26,704	60,427	32,044	15,259	2,155,522	118,107	585,955
19	28,077	26,551	15,259	44,481	17,930	15,259		23,804	24,415	10,681	577,715	160,527	13,733		454,726	122,074	15,259		63,478	33,876	25,178	58,596	31,434	12,207	1,654,714	98,575	440,230
20	28,077	26,551	16,785	39,064	16,251	16,022		25,330	24,720	12,207	542,619	151,372	12,970		418,409	115,665	16,022		62,563	33,570	26,704	56,154	30,824	13,733	1,068,758	71,413	323,496
21	28,993	26,856	16,785	37,461	16,327	15,259		25,330	24,415	12,970	481,582	137,638	15,259		388,806	107,120	16,022		61,953	33,265	26,704	57,375	31,434	13,733	915,860	64,394	290,689
22	30,213	47,914	16,022	34,333	15,183	16,022		24,720	24,720	14,496	446,181	129,704	12,207		372,326	103,763	13,733		62,563	33,570	23,652	58,596	31,434	16,022	689,413	55,544	236,518
23	29,298	26,856	15,259	33,570	14,725	14,496		24,720	24,110	12,970	430,006	124,821	14,496		364,391	101,016	13,733		62,258	33,570	19,074	59,816	31,434	12,970	541,704	48,830	206,763
24	28,687	26,246	14,496	121,769	55,849	16,785		25,941	25,025	16,022	387,585	117,191	14,496		336,924	94,913	14,496		63,784	35,096	28,230	58,901	31,739	12,970	432,142	45,167	168,615
25	28,687	26,246	15,259	114,444	53,407	15,259		25,025	25,025	13,733	368,664	110,782	13,733		330,515	92,776	15,259		62,868	34,791	28,230	57,985	31,739	14,496	363,170	41,200	152,593
26	27,772	25,636	14,496	115,970	55,239	16,022		25,025	25,025	14,496	362,865	107,730	12,207		312,815	88,809	12,970		64,699	35,707	25,178	58,901	31,739	15,259	307,016	39,369	139,622
27	28,382	25,025	15,259	114,444	53,407	13,733		25,636	25,330	15,259	342,112	103,458	12,970		288,095	83,010	13,733		61,647	32,655	11,444	58,901	31,129	17,548	290,536	38,148	138,859
28	27,467	25,025	17,548	107,425	51,576	13,733		24,415	24,415	11,444	311,289	97,049	12,970		282,296	82,095	14,496		62,563	33,570	15,259	57,070	31,129	14,496	242,622	36,317	128,178
29	27,161	25,330	15,259	99,490	49,440	15,259		24,720	25,025	11,444	299,387	93,387	12,207		272,530	79,958	12,970		59,816	33,265	14,496	57,070	30,519	15,259	215,461	35,707	117,496
30	26,551	25,330	14,496					23,499	25,025	10,681					252,693	75,991	12,207		60,121	32,960	12,207	54,628	30,824	15,259	178,838	34,181	100,711
31																											
32																											
33																											
34																											

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:			
	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Table 1: Summary of MIP Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

	MIP-61			MIP-62			MIP-63			MIP-64			LIF-26
Depth (ft)	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	%RE
	Nov 2012			Nov 2012			Nov 2012			Nov 2012			Nov 2012
1	42,421	33,570	21,363	25,330	22,279	13,733	28,077	26,551	17,548	27,161	92,166	13,733	2.6
2	50,966	40,895	25,178	25,330	22,584	16,022	27,467	25,941	12,970	34,791	297,861	16,022	0.5
3	54,628	32,350	29,756	31,129	25,941	17,548	25,636	25,025	13,733	27,772	470,595	17,548	0.5
4	62,563	103,458	25,941	38,453	28,077	18,311	39,369	72,024	13,733	25,636	220,344	15,259	0.5
5	72,939	88,504	42,726	33,570	24,110	18,311	44,557	76,296	18,311	30,519	345,470	15,259	0.7
6	57,985	60,121	32,044	25,330	22,584	18,311	50,356	67,141	18,311	35,401	775,780	15,259	0.7
7	50,661	46,388	22,126	25,025	22,889	14,496	52,187	68,667	16,022	31,129	158,696	13,733	0.6
8	44,557	25,941	22,126	24,415	22,889	13,733	30,519	26,551	19,837	27,161	32,960	16,785	0.5
9	47,304	25,941	23,652	24,415	22,889	14,496	28,077	26,246	13,733	23,194	21,973	18,311	0.4
10	63,173	28,382	40,437	23,804	22,889	12,970	26,856	22,889	14,496	21,973	21,058	12,970	0.5
11	194,403	38,759	123,600	22,279	22,889	19,074	24,110	21,363	14,496	22,279	22,279	15,259	0.4
12	147,710	31,129	98,422	21,973	23,194	15,259	24,110	22,279	15,259	22,584	21,363	15,259	0.4
13	148,015	30,519	93,844	22,279	23,499	14,496	23,194	21,363	13,733	22,279	22,279	15,259	0.3
14	126,041	29,908	83,926	23,194	23,804	17,548	23,499	21,973	14,496	23,499	22,279	16,785	
15	91,556	28,077	63,326	27,467	27,161	15,259	23,804	22,279	13,733	23,804	22,889	15,259	
16	79,043	27,772	54,933	22,584	24,110	17,548	24,415	22,584	14,496	23,804	22,584	12,970	
17	71,718	27,467	48,830	21,363	24,110	19,074	24,110	22,279	15,259	24,110	22,889	14,496	
18	64,089	27,467	41,963	21,058	23,499	12,970	22,889	21,973	16,785	23,804	22,584	15,259	
19	60,427	27,467	38,148	20,753	24,110	13,733	23,194	22,584	17,548	23,804	22,889	16,022	
20	56,459	27,161	33,570	20,447	23,499	15,259	24,415	22,279	16,022	25,025	22,584	16,785	
21	52,797	27,467	30,519	20,753	23,194	15,259	24,415	22,584	12,970	25,330	23,804	19,837	
22	50,661	27,772	29,756	21,058	24,415	15,259	24,720	23,194	15,259	25,025	24,110	14,496	
23	49,745	27,772	25,178	21,058	24,415	13,733	25,330	23,194	15,259	24,720	23,499	13,733	
24	48,219	27,467	26,704	21,058	24,415	14,496	25,636	23,499	15,259	26,551	23,804	13,733	
25	47,304	27,467	21,363	21,058	24,110	13,733	26,246	23,499	13,733	25,636	24,720	14,496	
26	44,862	27,467	23,652	21,363	24,110	14,496	26,246	24,110	15,259	26,551	24,110	14,496	
27	44,862	27,161	19,074	21,668	24,415	13,733	25,941	23,804	15,259	27,467	24,110	14,496	
28	44,557	28,077	21,363	21,973	24,415	22,126	26,246	23,804	15,259	28,382	24,415	13,733	
29	45,778	29,298	21,363	21,973	24,720	16,022	25,636	24,110	15,259	28,993	25,330	12,970	
30	41,505	25,941	16,785	21,363	25,025	13,733	25,330	23,499	14,496	27,467	23,499	12,970	
31													
32													
33													
34													

	MIP-65			MIP-66			MIP-67			MIP-68			MIP-69		
Depth (ft)	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD
	Nov 2012			Nov 2012			Nov 2012			Nov 2012			Nov 2012		
1	31,129	23,499	24,415	36,317	28,382	15,259	38,148	27,772	17,548	36,622	202,948	16,785	33,570	39,369	13,733
2	32,044	40,284	15,259	48,830	37,843	16,785	39,674	28,687	19,074	39,369	78,127	18,311	41,200	39,369	16,022
3	33,570	84,841	13,733	32,655	21,973	16,785	37,843	28,993	19,074	37,233	38,148	15,259	36,012	24,720	12,970
4	40,590	81,484	16,022	59,816	41,810	19,074	57,070	41,505	19,074	43,641	94,913	18,311	36,622	26,551	18,311
5	38,759	35,096	16,022	34,486	24,415	17,548	37,843	29,603	18,311	41,200	29,908	18,311	43,641	33,265	14,496
6	34,486	28,993	15,259	31,434	21,973	16,785	39,674	31,434	19,074	43,031	31,434	16,785	32,044	24,110	15,259
7	32,350	35,707	17,548	31,739	22,279	18,311	35,707	27,467	18,311	36,012	25,025	17,548	28,993	22,279	12,970
8	32,350	22,889	18,311	30,519	22,279	13,733	34,791	27,161	18,311	38,453	26,856	18,311	31,129	23,499	16,022
9	32,350	22,889	16,785	34,181	22,889	20,600	35,401	27,161	18,311	38,453	26,551	16,785	31,129	23,499	14,496
10	32,044	23,804	15,259	51,576	23,499	41,200	36,622	28,687	19,837	38,759	26,856	17,548	33,265	23,804	16,785
11	32,044	23,194	15,259	70,498	24,720	65,615	76,601	67,446	67,141	38,759	26,246	15,259	29,298	23,194	13,733
12	32,655	23,804	16,022	73,550	25,025	68,667	46,693	31,129	32,044	39,674	27,467	15,259	35,096	24,720	16,022
13	32,044	23,499	16,022	68,056	24,720	64,089	46,693	28,993	34,333	39,979	26,551	12,970	35,096	24,720	14,496
14	32,044	24,720	15,259	65,310	24,110	60,274	43,336	27,772	27,467	39,674	27,161	16,022	31,739	24,110	15,259
15	30,824	23,804	16,022	51,881	23,194	46,541	40,590	28,077	22,889	39,064	27,161	22,126	29,298	22,584	15,259
16	32,044	23,499	14,496	40,284	22,584	28,993	37,538	27,161	20,600	38,759	26,246	22,889	30,824	23,804	16,022
17	31,739	23,499	15,259	48,219	23,194	37,385	39,674	27,467	19,837	36,622	26,246	18,311	30,824	24,720	16,022
18	33,570	24,110	15,259	40,284	22,584	27,467	38,453	27,772	21,363	37,233	26,246	16,785	32,044	23,804	16,785
19	33,265	23,804	15,259	38,453	22,889	24,415	36,012	27,467	19,074	39,369	26,856	18,311	28,993	22,889	13,733
20	33,265	24,110	17,548	39,064	23,194	23,652	36,317	26,856	19,074	42,116	29,298	30,519	32,044	24,110	15,259
21	34,486	25,025	15,259	37,843	23,499	21,363	35,401	26,551	16,785	43,031	27,772	26,704	36,012	25,025	14,496
22	34,791	25,330	19,837	37,538	24,110	17,548	36,012	27,467	17,548	43,336	28,687	21,363	33,570	24,720	13,733
23	33,265	24,110	23,652	35,707	23,499	13,733	36,012	27,467	15,259	38,453	26,856	15,259	32,655	24,415	11,444
24	32,044	24,110	17,548	37,843	25,025	18,311	36,927	28,077	15,259	39,979	27,467	15,259	32,044	24,110	15,259
25	31,739	24,415	16,785	37,538	24,415	16,785	37,538	27,772	16,785	38,148	26,551	28,230	29,603	24,110	16,785
26	31,129	24,720	22,126	36,012	24,415	17,548	36,927	27,161	15,259	39,979	27,772	31,281	28,993	24,110	15,259
27	31,129	25,025	16,022	35,707	24,415	18,311	36,927	27,772	16,022	42,421	28,077	16,785	29,298	23,804	16,022
28	30,213	24,415	14,496	36,622	24,720	16,785	36,012	27,467	14,496	41,505	27,772	28,230	29,603	24,110	16,785
29	31,129	24,415	14,496	36,317	25,025	17,548	35,096	26,856	14,496	40,895	27,467	30,519	28,077	23,804	14,496
30	31,434	24,720	17,548				36,622	27,772	15,259	41,200	27,772	25,941			
31										39,979	27,161	18,311			
32															
33															
34															

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:

	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

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Table 1: Summary of MIP Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

	MIP-70			MIP-71			MIP-72			MIP-73			MIP-74			MIP-75			MIP-76			MIP-77		
Depth (ft)	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD	PID	FID	XSD
	Nov 2012			Nov 2012			Nov 2012			Nov 2012			Nov 2012			Nov 2012			Nov 2012			Nov 2012		
1	29,298	25,636	14,496	24,110	36,317	14,496	20,142	19,532	17,548	18,921	19,227	15,259	27,467	21,058	16,022	42,116	23,804	15,259	36,927	21,973	12,970	40,590	21,363	14,496
2	33,265	315,256	16,022	34,791	66,530	14,496	19,532	19,227	15,259	23,804	21,973	19,074	26,246	20,447	19,074	43,031	24,720	16,785	41,810	22,889	15,259	41,810	22,279	15,259
3	35,401	79,958	16,022	33,876	53,407	15,259	18,921	18,921	16,022	24,720	23,804	18,311	27,772	21,363	16,785	40,895	24,110	16,785	44,862	23,499	12,970	41,505	21,973	12,207
4	36,622	37,843	16,022	32,960	25,636	15,259	19,837	19,227	16,785	18,921	19,837	16,785	28,077	20,753	16,022	48,830	26,246	16,785	46,083	23,804	13,733	41,810	22,889	16,022
5	36,317	54,628	16,022	28,382	41,200	16,022	19,532	18,921	13,733	19,227	19,532	15,259	28,382	21,668	16,785	56,154	27,161	16,785	47,914	25,636	13,733	42,421	23,194	16,022
6	43,336	105,289	15,259	25,330	23,499	16,022	18,921	18,921	17,548	19,837	19,837	15,259	29,298	22,279	18,311	54,628	26,856	19,074	47,304	45,778	14,496	44,557	23,194	14,496
7	37,843	93,081	15,259	27,161	22,584	14,496	19,837	20,753	15,259	20,447	20,142	16,785	33,265	25,636	17,548	43,031	25,330	14,496	47,609	40,284	12,970	42,116	22,889	13,733
8	35,096	62,563	14,496	25,025	21,668	14,496	25,025	24,110	16,022	20,447	20,753	16,785	32,044	24,110	19,074	49,440	32,960	16,785	56,459	51,881	18,311	44,252	24,720	14,496
9	27,772	28,077	14,496	23,804	21,363	15,259	23,499	20,447	16,785	21,058	20,753	16,022	30,824	23,194	17,548	46,693	28,993	16,785	55,544	39,979	14,496	42,726	23,194	15,259
10	26,551	22,279	16,022	24,415	21,668	14,496	23,499	20,142	18,311	21,363	20,753	16,785	30,824	22,279	19,074	42,726	26,246	15,259	54,628	31,129	14,496	41,810	23,499	16,785
11	26,856	22,584	14,496	22,889	21,668	16,785	23,804	20,142	15,259	20,447	21,058	16,022	30,519	22,279	19,837	43,031	26,551	16,785	47,914	25,636	14,496	39,979	22,584	14,496
12	27,467	23,804	19,074	22,584	21,668	16,022	24,720	21,058	15,259	20,447	21,058	16,022	29,908	22,584	19,837	43,336	26,551	18,311	48,830	27,772	14,496	40,284	23,804	16,022
13	26,856	23,194	15,259	22,889	22,279	18,311	25,941	21,058	17,548	20,142	21,058	16,022	31,434	22,584	18,311	40,895	25,330	18,311	45,778	25,636	16,022	41,200	24,415	17,548
14	26,856	22,584	14,496	21,668	21,668	17,548	25,025	20,447	15,259	20,142	21,363	16,785	32,350	23,194	19,837	39,369	25,025	17,548	44,252	25,025	12,970	40,284	23,804	16,785
15	27,467	22,889	14,496	23,499	23,499	19,074	22,889	20,753	15,259	19,532	23,194	16,785	30,519	22,584	19,074	38,759	24,415	16,785	43,947	24,720	13,733	38,759	23,194	16,022
16	27,772	23,499	14,496	23,499	22,889	19,074	22,889	21,058	16,022	19,837	23,194	16,785	29,603	22,584	19,074	39,064	25,025	17,548	43,947	24,720	13,733	39,674	23,499	14,496
17	27,467	23,194	15,259	23,194	22,279	19,837	23,194	20,753	16,785	20,142	23,194	16,022	30,519	22,584	16,785	39,369	25,330	16,785	40,895	23,804	13,733	39,979	23,499	15,259
18	27,161	23,499	15,259	23,499	22,889	14,496	23,804	21,668	18,311	19,837	23,804	18,311	29,908	22,889	16,785	39,064	25,025	17,548	40,284	24,720	14,496	39,064	23,804	16,785
19	26,856	22,889	15,259	22,889	22,279	16,022	22,889	20,753	16,785	20,142	22,279	17,548	29,603	22,584	16,785	36,012	24,110	16,785	40,284	23,194	15,259	36,927	22,279	14,496
20	26,551	23,194	15,259	22,889	22,584	20,600	22,584	21,058	19,074	20,142	21,973	17,548	30,519	23,194	16,022	36,012	24,110	16,022	41,200	24,720	27,467	37,843	22,889	16,022
21	26,856	22,889	14,496	22,279	22,584	20,600	21,973	20,753	19,837	20,142	21,668	18,311	29,908	22,889	16,785	38,759	24,720	19,074	41,200	23,804	18,311	38,453	23,194	16,785
22	26,856	23,499	14,496	21,668	22,584	16,785	22,279	21,058	16,022	20,447	21,668	18,311	29,603	22,584	17,548	38,453	25,025	18,311	41,505	24,415	27,467	37,843	22,889	17,548
23	27,467	22,889	15,259	21,668	23,194	19,074	21,058	20,447	15,259	20,142	21,363	16,785	28,687	22,584	16,785	37,233	24,415	17,548	41,200	23,804	19,074	37,538	22,584	19,074
24	26,246	24,415	14,496	21,973	22,889	16,785	20,142	21,058	18,311	20,447	21,363	17,548	28,382	22,584	15,259	38,759	24,415	16,022	44,252	25,025	28,230	37,233	22,889	17,548
25	26,551	23,804	15,259	23,194	22,889	12,970	19,837	21,058	22,126	20,447	21,668	17,548	27,772	22,584	16,785	38,453	24,720	16,785	43,947	24,720	15,259	36,927	22,889	18,311
26	26,856	24,110	15,259	23,194	23,194	13,733	20,142	20,753	18,311	20,447	21,363	19,837	29,298	22,584	17,548	36,927	24,720	16,022	43,336	25,025	18,311	36,317	22,889	17,548
27	27,161	23,804	16,022	22,889	22,889	15,259	21,058	21,058	14,496	20,753	21,363	16,022	27,467	22,584	17,548	37,233	24,415	16,785	40,284	23,804	13,733	34,791	22,889	14,496
28	26,856	24,110	15,259	22,889	23,194	14,496	20,753	20,753	15,259	20,753	21,668	16,022	28,687	22,889	16,022	38,148	24,720	16,785	42,116	24,720	25,941	35,401	22,584	16,022
29	26,551	23,804	14,496	22,584	23,499	15,259	20,447	21,363	15,259	21,363	21,668	16,022	28,687	22,584	14,496	36,622	24,110	14,496	43,031	24,415	14,496	34,486	22,584	16,022
30	25,941	23,499	12,207	21,668	22,584	12,207							28,382	22,279	13,733				40,590	23,804	15,259	34,486	21,973	16,785
31																								
32																								
33																								
34																								

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:			
	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Prepared by: ATK
Checked by: MRH
Reviewed by: APTM

Golder Associates

Table 8: Summary of MIP Survey and Analytical Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Depth (ft)	MIP-02			LIF-47	SB-11	MW-16	
	PID	FID	XSD	%RE	TVOC	TCE	TVOC
	Apr 2012			Nov 2012	May 2012	Dec 2012	
1	44,862	39,979	22,889	13.7			
2	46,388	39,674	21,363	1.5			
3	51,576	44,252	20,600	1.1			
4	50,661	49,745	21,363	1.1			
5	52,797	61,647	19,837	1.4			
6	61,953	80,264	22,126	1.1			
7	49,745	56,764	21,363	2.6		269	312
8	48,524	45,473	20,600	4.9			
9	47,304	47,914	20,600	2.5			
10	46,388	48,219	21,363	1.2			
11	46,388	48,219	23,652	1			
12	47,914	52,187	24,415	1			
13	49,135	53,713	31,281	1			
14	51,881	107,425	36,622		1,340		
15	77,212	167,547	74,007				
16	54,933	77,517	48,067				
17	52,187	53,407	39,674				
18	50,050	53,713	32,807		<482		
19	48,830	53,102	32,807				
20	48,524	53,102	30,519				
21	48,830	60,121	28,230				
22	46,693	52,797	25,941				
23	46,693	52,492	25,941				
24	46,388	52,492	25,178				
25	47,609	60,732	24,415				
26	52,187	85,757	26,704				
27	46,999	65,310	23,652				
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							

Depth (ft)	MIP-03			LIF-02	SB-15, MW-46	MW-19, MW-29, MW-45, and MW-46		
	PID	FID	XSD	%RE	TVOC	TEPH	TCE	TVOC
	Apr 2012			Apr 2012	May 2012, Nov 2012	Dec 2012		
1	49,745	40,284	23,652	9				
2	57,375	66,530	27,467	2.5				
3	50,966	39,369	22,889	1.2				
4	63,478	97,964	25,178	0.9				
5	50,661	59,206	24,415	0.8				
6	58,290	70,498	39,674	0.8				
7	88,809	99,490	87,741	0.8		467	84,600	86,930
8	70,498	56,154	68,667	0.7				
9	105,289	59,206	115,970	0.7				
10	317,087	114,444	305,948	0.8				
11	1,120,334	343,333	717,185	0.7				
12	1,870,174	584,735	990,326	0.7				
13	2,529,374	871,609	1,091,037	0.8	276,195			
14	2,732,017	966,826	1,165,807	0.8	(SB-15)			
15	2,832,118	1,018,098	1,123,844	0.9				
16	2,368,236	793,481	915,555	0.9				
17	1,069,369	349,132	486,007	1				
18	610,370	214,850	324,259	0.9		<180	53,500	53,500
19	234,382	112,308	164,800	0.9	<429			
20	359,813	127,873	227,363	0.9	(SB-15)			
21	136,723	68,667	109,867	0.9				
22				0.9				
23				0.9				
24								
25						<180	32,500	33,695
26								
27								
28								
29								
30								
31					<233 (MW-46)			
32								
33								
34								
35								
36								
37								
38						<180	15,400	15,423
39								
40								
41					1,800 (MW-46)			

Depth (ft)	MIP-05			LIF-17	SB-16		MW-21 and MW-30		
	PID	FID	XSD	%RE	TEPH	TVOCs	TEPH	TCE	TVOC
	Apr 2012			Apr 2012	May 2012		Dec 2012		
1	55,544	65,310	28,993	3.3					
2	100,406	283,212	28,993	2.2					
3	99,185	183,721	27,467	0.8					
4	110,477	1,879,025	28,230	0.7					
5	148,625	1,602,527	28,230	3.3					
6	187,078	862,453	28,230	16.7					
7	350,658	617,084	28,993	12.8			60,600	1.94	881
8	383,923	676,595	28,993	4.7					
9	381,787	672,628	28,230	15.5					
10	724,204	1,319,010	31,281	31.6					
11	689,413	1,234,168	30,519	7.2					
12	755,028	1,490,219	30,519	0.8	<10	<575			
13	836,512	1,485,641	32,044	1					
14	801,416	1,300,699	30,519	0.8					
15	748,619	1,180,761	29,756						
16	704,672	1,131,016	30,519						
17	651,265	1,033,662	28,230						
18	585,345	903,958	28,230		<10	<467			
19	550,859	848,720	28,230						
20	512,101	790,124	26,704						
21	472,427	733,665	27,467						
22	446,791	678,121	26,704						
23	447,707	675,680	27,467				NS	3.45	4.97
24	408,032	612,812	28,993		<10	<454			
25	371,410	546,892	27,467						
26	325,632	469,680	27,467						
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									

Depth (ft)	MIP-15			LIF-39	SB-01		MW-31			Depth (ft)
	PID	FID	XSD	%RE	TEPH	TVOCs	TEPH	TCE	TVOC	
	Apr 2012			Nov 2012	May 2012		Dec 2012			
1	84,536	168,462	22,126	1.9						1
2	89,419	4,382,763	61,800	1.6	3,310	3,490				2
3	170,904	4,383,679	159,459	2.7						3
4	180,670	5,254,066	152,593	0.7						4
5	141,606	7,839,595	94,607	12.1						5
6	229,499	13,498,947	48,067	8.9						6
7	285,653	11,372,417	41,963	11.3	103	957				7
8	263,680	488,296	32,044	0.9						8
9	266,121	888,699	33,570	1						9
10	231,941	393,078	35,859	0.4						10
11	199,286	310,984	32,044	0.4						11
12	207,526	307,016	80,111	0.4						12
13	228,584	276,803	108,341	0.4						13
14	245,369	274,361	125,126							14
15	269,478	361,034	145,726		<10	13,530	<180	1,060	5,631	15
16	276,803	364,086	139,622							16
17	305,490	304,575	170,141							17
18	227,973	229,194	123,600							18
19	177,618	209,052	77,822							19
20	215,461	215,766	118,259							20
21	189,520	199,286	98,422							21
22	186,468	197,455	93,081							22
23	155,644	189,825	66,378							23
24	161,748	184,942	82,400							24
25	156,560	171,819	76,296							25
26	157,170	176,397	73,244							26
27	138,554	171,514	55,696							27
28	147,404	167,852	66,378							28
29	136,113	158,086	61,037							29
30	129,093	145,878	57,222							30
31	123,600	145,878	46,541		<10	<426				31
32	135,807	159,612	56,459							32
33	166,021	318,918	60,274							33
34	159,612	274,972	57,985							34
35										35
36										36
37										37
38										38
39										39
40										40
41										41

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria for MIP and LIF are different for April and Nov data due to differences in the detectors background values at the time of survey.
= Soil sample concentrations are displayed over the sampled interval in ug/kg (micrograms per kilogram) for TVOCS and mg/kg (milligrams per kilogram) for TEPH
= Groundwater (GW) results displayed over the screened interval of the well in ug/L (micrograms per liter)
TEPH = Total extractable petroleum hydrocarbons
TVOCs = total volatile organic compounds - includes the sum of all detected VOC parameters
TCE = trichloroethene
NAPL = Non-aqueous phase liquid
NS = Not Sampled
ND = no VOCs detected

Color flood criteria:

	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Table 8: Summary of MIP Survey and Analytical Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Depth (ft)	MIP-16A PID	MIP-16A FID	MIP-16A XSD	LIF-01 %RE	LIF-40 %RE	SB-12 TEPH	SB-12 TVOCs	MW-52 TEPH	MW-52 TCE	MW-52 TVOC
	Apr 2012			Apr 2012	Nov 2012	May 2012		Dec 2012		
1	97,964	95,828	28,993	1.1	0.8					
2	95,828	101,321	27,467	1.1	1.6					
3	94,913	100,406	27,467	3.1	4.2					
4	149,846	185,858	28,230	115.2	5.6					
5	165,105	209,662	27,467	119.4	69.7					
6	166,021	211,798	25,941	94.6	90.6	17,300	1,090	3,670	<0.19	4.99
7	164,800	207,831	27,467	98.6	55.4					
8	159,307	198,065	25,941	101.2	61.8					
9	194,708	258,492	28,993	68.6	60					
10	222,785	302,133	27,467	33.3	0.9					
11	223,090	299,692	28,230	0.9	0.6	80	<473			
12	223,090	299,387	26,704	1.1	0.4					
13	219,733	289,926	28,993	1	0.3					
14	177,618	223,090	28,230	1						
15	177,007	222,175	28,230	1						
16	162,969	199,896	26,704	0.9						
17	162,969	198,065	29,756	0.9						
18	151,067	177,313	28,230	1						
19	147,099	169,378	27,467	0.9						
20	146,794	169,378	31,281							
21	141,301	161,138	28,230							
22	139,164	156,865	30,519							
23	135,197	150,761	28,230							
24	134,587	149,541	26,704							
25	134,281	148,015	26,704							
26	131,230	143,437	28,230							
27	129,704	140,385	26,704							
28	126,652	136,418	24,415							
29	127,262	137,638	26,704							
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Depth (ft)	MIP-20 PID	MIP-20 FID	MIP-20 XSD	LIF-18 %RE	SB-17 TEPH	SB-17 TVOCs	MW-24 TCE	MW-24 TVOC
	Apr 2012			Apr 2012	May 2012		Dec 2012	
1	64,089	272,530	19,837	1.9				
2	67,446	726,341	20,600	1	11.4	<541		
3	69,582	339,366	21,363	0.9				
4	66,836	76,601	21,363	0.8				
5	72,329	404,065	33,570	6.1				
6	68,361	140,690	29,756	0.7				
7	65,615	66,225	31,281	0.9				
8	68,667	99,796	34,333	0.8				
9	63,478	63,478	22,126	0.8				
10	63,478	61,647	22,126	0.8	<10	<440		
11	62,868	60,427	20,600	0.7				
12	63,173	60,732	22,126					
13	65,920	115,055	23,652					
14	61,953	62,563	22,126				<0.19	1.08
15	61,342	61,342	19,837					
16	61,647	61,953	22,889					
17	61,953	63,173	21,363					
18	61,647	63,784	21,363					
19	62,258	64,089	20,600					
20	62,868	66,225	24,415					
21	63,173	66,530	22,126					
22	61,953	64,089	20,600					
23	61,953	64,394	20,600					
24	64,699	68,972	23,652					
25	64,699	66,836	22,126					
26	61,037	64,394	22,889					
27	60,732	64,089	21,363					
28	62,868	68,056	23,652					
29	60,732	65,004	22,889					
30	61,647	67,141	22,126					
31	61,647	66,530	20,600					
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Depth (ft)	MIP-21 PID	MIP-21 FID	MIP-21 XSD	SB-14 TVOC	MW-26S and MW-26D TEPH	MW-26S and MW-26D TCE	MW-26S and MW-26D TVOC
	Apr 2012			May 2012	Dec 2012		
1	59,206	51,881	20,600				
2	63,173	91,556	26,704				
3	64,394	80,569	25,941				
4	75,381	93,081	46,541				
5	83,621	130,924	58,748				
6	77,822	96,744	46,541				
7	62,258	56,459	28,993	<483			
8	63,173	55,544	30,519				
9	63,173	57,680	32,044				
10	87,893	67,751	77,822				
11	101,627	73,550	90,793				
12	156,865	92,166	139,622	106,000	520	2	19,000
13	3,365,276	1,797,845	1,499,985				
14	2,595,294	1,186,865	1,276,437				
15	673,849	275,582	370,037				
16	695,517	281,686	380,718				
17	551,775	229,194	312,052				
18	252,693	125,431	174,718				
19	122,990	82,705	98,422				
20	185,247	104,984	132,756				
21	162,053	96,744	119,785				
22	140,080	90,640	106,052		NS	338	351.3
23	104,373	77,517	79,348	<527			
24	82,705	70,498	65,615				
25	98,880	76,601	77,059				
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Depth (ft)	MIP-30 PID	MIP-30 FID	MIP-30 XSD	LIF-15 %RE	SB-03 TEPH	SB-03 TVOC	MW-27 TCE	MW-27 TVOC
	Apr 2012			Apr 2012	May 2012		Dec 2012	
1	52,492	54,323	22,889	7.6				
2	54,018	904,569	22,889	4.4	103	1,040		
3	59,206	1,297,342	24,415	2.4				
4	85,452	2,801,294	24,415	2.3				
5	122,379	1,822,260	25,178	2.1				
6	141,301	1,329,386	28,230	35.2	3,810	62,570		
7	310,678	1,694,998	28,230	67.4				
8	358,592	1,386,761	26,704	30.5				
9	360,424	3,832,820	25,941	8.5				
10	334,788	3,986,938	31,281	0.8				
11	286,874	810,266	26,704	0.6				
12	234,077	544,145	24,415	0.5			1.67	103.5
13	196,844	476,699	24,415	0.6				
14	170,293	359,508	23,652					
15	151,372	310,068	23,652					
16	133,061	276,193	24,415		16.7	<423		
17	128,788	238,960	22,889					
18	120,243	219,733	24,415					
19	110,172	199,896	25,178					
20	105,899	187,689	22,889					
21	101,321	175,787	24,415					
22	96,133	167,241	25,178		<12	<412		
23	95,218	164,495	22,889					
24	90,640	153,508	23,652					
25	86,673	145,878	23,652					
26	84,536	138,554	24,415					
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Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria for MIP and LIF are different for April and Nov data due to differences in the detectors background values at the time of survey.
= Soil sample concentrations are displayed over the sampled interval in ug/kg (micrograms per kilogram) for TVOCS and mg/kg (milligrams per kilogram) for TEPH
= Groundwater (GW) results displayed over the screened interval of the well in ug/L (micrograms per liter)
TEPH = Total extractable petroleum hydrocarbons
TVOCs = total volatile organic compounds - includes the sum of all detected VOC parameters
TCE = trichloroethene
NAPL = Non-aqueous phase liquid
NS = Not Sampled
ND = no VOCs detected

Color flood criteria:

	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

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Table 8: Summary of MIP Survey and Analytical Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Depth (ft)	MIP-32			LIF-03	SB-13		MW-25S and MW-26D		
	PID	FID	XSD	%RE	TEPH	TVOC	TEPH	TCE	TVOC
	Apr 2012			Apr 2012	May 2012		Dec 2012		
1	66,836	965,300	22,126	10.7	1,540	<628			
2	66,836	1,384,014	22,889	11.8					
3	67,141	897,855	22,889	14					
4	65,615	1,958,068	22,126	12.3	20,300	1,932			
5	65,004	1,206,702	22,889	12.7					
6	66,530	1,837,214	21,363	12.8					
7	67,141	630,512	21,363	10.2					
8	68,972	275,582	22,126	13.6					
9	71,718	233,161	22,126	13					
10	73,244	429,395	22,126	85.3	453	4,960			
11	76,601	1,043,123	22,889	89.7					
12	76,907	416,883	23,652	21.6					
13	77,822	206,000	28,230	21.1					
14	83,621	191,961	40,437	0.8					
15	104,068	176,092	71,718	0.9					
16	133,366	170,904	102,237	0.9	20.6	23,510	61,200	185	65,065
17	139,470	140,996	109,867	0.9					
18	137,944	124,821	108,341	0.8					
19	116,276	102,237	86,978	0.8					
20	97,354	91,556	65,615						
21	90,945	88,198	58,748						
22	87,588	86,062	48,830						
23	83,010	82,400	45,778						
24	83,010	82,705	40,437						
25	80,569	81,484	37,385						
26	79,653	79,958	32,807		21.8	<488		21.1	28.84
27	76,907	78,127	32,807						
28	73,550	74,770	31,281						
29	72,939	73,244	32,044						
30	71,413	72,939	30,519						
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Depth (ft)	MIP-34			SB-02		MW-28		
	PID	FID	XSD	TEPH	TVOC	TEPH	TCE	TVOC
	Apr 2012			May 2012		Dec 2012		
1	59,816	311,899	19,074					
2	71,108	472,427	34,333	<10	NS			
3	61,037	299,387	23,652					
4	71,718	2,643,818	28,230					
5	71,108	1,633,656	31,281					
6	58,901	162,969	23,652					
7	58,290	146,184	23,652					
8	58,596	138,554	23,652					
9	58,901	153,203	24,415					
10	65,920	234,382	33,570					
11	79,653	223,396	53,407					
12	109,867	216,681	86,215					
13	201,117	394,299	146,489					
14	1,085,543	2,003,235	492,111	NS	272,270	9,890	33,400	123,165
15	1,318,094	988,494	542,466					
16	1,189,917	592,975	491,348					
17	955,840	472,121	411,237					
18	677,511	313,730	318,918					
19	502,945	240,486	255,593					
20	355,541	173,345	197,607					
21	270,394	139,470	160,985					
22	224,006	121,769	139,622					
23	186,468	107,425	119,022					
24	160,222	97,964	107,578					
25	127,262	83,926	89,267					
26	102,847	75,381	73,244					
27	91,861	71,108	66,378					
28	71,718	64,394	51,119	NS	<458			
29	84,536	77,212	60,274					
30	72,329	69,582	46,541					
31	68,667	63,478	43,489					
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Depth (ft)	MIP-39			LIF-32	MW-47D	MW-47S and MW-47D		
	PID	FID	XSD	%RE	TVOC	TEPH	TCE	TVOC
	Apr 2012			Nov 2012	Nov 2012	Dec 2012		
1	56,764	500,198	22,126	5.4				
2	58,290	404,981	29,756	0.7				
3	65,310	1,034,883	25,178	0.7				
4	67,446	4,383,374	24,415	1.2				
5	60,732	364,696	21,363	2.4				
6	61,647	108,951	21,363	2.2				
7	64,699	212,714	22,126	6.8				
8	63,784	348,521	20,600	5.1				
9	63,478	1,519,211	22,126	3.7				
10	65,004	4,383,068	25,178	1.4				
11	65,920	419,630	27,467	1.2				
12	68,056	239,265	35,096	0.5				
13	148,930	680,258	114,444	0.4				
14	408,032	963,164	304,422					
15	471,206	704,978	311,289			9,950	54,400	160,455
16	487,381	777,612	312,815					
17	472,121	274,056	302,896					
18	395,215	224,616	257,118					
19	302,438	180,975	203,711					
20	237,129	149,236	167,852					
21	213,630	136,723	151,830					
22	173,345	117,801	132,756					
23	152,593	108,341	119,022					
24	144,963	102,847	115,207					
25	115,360	90,640	96,133					
26	89,724	78,738	73,244					
27	86,367	77,212	68,667					
28	80,569	75,076	62,563					
29	75,686	73,550	57,985					
30	70,803	75,686	53,407					
31	69,582	72,939	49,593					
32					1,300			
33								
34								
35					6,400			
36								
37								
38								
39						733	42,700	47,600
40								
41								

Depth (ft)	MIP-57			LIF-10	MW-36S and MW36D			Depth (ft)
	PID	FID	XSD	%RE	TEPH	TCE	TVOC	
	Nov 2012			Apr 2012	Dec 2012			
1	71,108	32,960	12,207	4.2				1
2	74,465	568,255	13,733	1.1				2
3	86,367	1,279,336	18,311	0.8				3
4	224,616	949,126	24,415	3.3				4
5	580,462	1,934,568	26,704	6.2				5
6	770,592	310,068	16,785	12.1				6
7	833,460	331,431	16,022	11.8	51,900	30.3	841	7
8	891,751	265,511	15,259	8.4				8
9	1,067,537	327,158	16,022	5.5				9
10	1,072,420	304,880	16,022	0.9				10
11	1,061,434	296,945	16,785	0.6				11
12	1,000,702	313,425	21,363					12
13	910,367	269,478	21,363					13
14	725,120	196,539	23,652					14
15	627,461	173,040	19,074					15
16	558,184	154,424	22,889					16
17	507,828	137,638	18,311		443	10.4	56.38	17
18	471,206	129,093	17,548					18
19	454,726	122,074	15,259					19
20	418,409	115,665	16,022					20
21	388,806	107,120	16,022					21
22	372,326	103,763	13,733					22
23	364,391	101,016	13,733					23
24	336,924	94,913	14,496					24
25	330,515	92,776	15,259					25
26	312,815	88,809	12,970					26
27	288,095	83,010	13,733					27
28	282,296	82,095	14,496					28
29	272,530	79,958	12,970					29
30	252,693	75,991	12,207					30
31								31
32								32
33								33
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41								41

Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria for MIP and LIF are different for April and Nov data due to differences in the detectors background values at the time of survey.
= Soil sample concentrations are displayed over the sampled interval in ug/kg (micrograms per kilogram) for TVOCS and mg/kg (milligrams per kilogram) for TEPH
= Groundwater (GW) results displayed over the screened interval of the well in ug/L (micrograms per liter)
TEPH = Total extractable petroleum hydrocarbons
TVOCs = total volatile organic compounds - includes the sum of all detected VOC parameters
TCE = trichloroethene
NAPL = Non-aqueous phase liquid
NS = Not Sampled
ND = no VOCs detected

Color flood criteria:

	Min	Mid	Max
April 2012: MIP-01 to MIP-51, LIF-01 to LIF-24			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
Nov 2012: MIP-52 to MIP-77, LIF-25 to LIF-84			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

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Table 8: Summary of MIP Survey and Analytical Data
Former Electrolux Manufacturing Facility
Jefferson, Iowa

Depth (ft)	MIP-59			MW-34			MIP-68			MW-54			MIP-70			MW-55S and MW-55D			MIP-73			MW-44		
	PID	FID	XSD	TEPH	TCE	TVOC	PID	FID	XSD	TEPH	TCE	TVOC	PID	FID	XSD	TEPH	TCE	TVOC	PID	FID	XSD	TEPH	TCE	TVOC
	Nov 2012			Dec 2012			Nov 2012			Dec 2012			Nov 2012			Dec 2012			Nov 2012			Dec 2012		
1	50,966	131,535	28,993				36,622	202,948	16,785				29,298	25,636	14,496				18,921	19,227	15,259			
2	55,849	408,643	28,993				39,369	78,127	18,311				33,265	315,256	16,022				23,804	21,973	19,074			
3	63,173	251,473	26,704				37,233	38,148	15,259				35,401	79,958	16,022				24,720	23,804	18,311			
4	61,037	339,671	24,415				43,641	94,913	18,311				36,622	37,843	16,022				18,921	19,837	16,785			
5	63,784	216,071	28,230				41,200	29,908	18,311				36,317	54,628	16,022				19,227	19,532	15,259			
6	65,615	393,689	28,230				43,031	31,434	16,785				43,336	105,289	15,259				19,837	19,837	15,259			
7	55,239	86,367	27,467	1,130	<0.19	ND	36,012	25,025	17,548				37,843	93,081	15,259	2,050	<0.19	ND	20,447	20,142	16,785			
8	60,427	46,388	13,733				38,453	26,856	18,311				35,096	62,563	14,496				20,447	20,753	16,785			
9	62,258	33,570	14,496				38,453	26,551	16,785				27,772	28,077	14,496				21,058	20,753	16,022			
10	62,868	32,960	11,444				38,759	26,856	17,548				26,551	22,279	16,022				21,363	20,753	16,785			
11	62,258	32,350	14,496				38,759	26,246	15,259				26,856	22,584	14,496				20,447	21,058	16,022			
12	62,258	32,350	12,970				39,674	27,467	15,259				27,467	23,804	19,074				20,447	21,058	16,022			
13	61,647	32,044	12,207				39,979	26,551	12,970				26,856	23,194	15,259				20,142	21,058	16,022			
14	61,953	31,739	12,970				39,674	27,161	16,022				26,856	22,584	14,496				20,142	21,363	16,785			
15	61,342	32,960	13,733				39,064	27,161	22,126				27,467	22,889	14,496				19,532	23,194	16,785			
16	58,290	32,044	12,207				38,759	26,246	22,889				27,772	23,499	14,496				19,837	23,194	16,785			
17	58,901	31,434	12,207				36,622	26,246	18,311				27,467	23,194	15,259				20,142	23,194	16,022			
18	60,427	32,044	15,259				37,233	26,246	16,785				27,161	23,499	15,259				19,837	23,804	18,311			
19	58,596	31,434	12,207				39,369	26,856	18,311				26,856	22,889	15,259				20,142	22,279	17,548	477	<0.19	ND
20	56,154	30,824	13,733				42,116	29,298	30,519				26,551	23,194	15,259				20,142	21,973	17,548			
21	57,375	31,434	13,733				43,031	27,772	26,704				26,856	22,889	14,496				20,142	21,668	18,311			
22	58,596	31,434	16,022				43,336	28,687	21,363				26,856	23,499	14,496				20,447	21,668	18,311			
23	59,816	31,434	12,970				38,453	26,856	15,259				27,467	22,889	15,259				20,142	21,363	16,785			
24	58,901	31,739	12,970				39,979	27,467	15,259				26,246	24,415	14,496				20,447	21,363	17,548			
25	57,985	31,739	14,496				38,148	26,551	28,230				26,551	23,804	15,259				20,447	21,668	17,548			
26	58,901	31,739	15,259				39,979	27,772	31,281	396	<0.19	ND	26,856	24,110	15,259	482	1.67	1.67	20,447	21,363	19,837			
27	58,901	31,129	17,548				42,421	28,077	16,785				27,161	23,804	16,022				20,753	21,363	16,022			
28	57,070	31,129	14,496				41,505	27,772	28,230				26,856	24,110	15,259				20,753	21,668	16,022			
29	57,070	30,519	15,259				40,895	27,467	30,519				26,551	23,804	14,496				21,363	21,668	16,022			
30	54,628	30,824	15,259				41,200	27,772	25,941				25,941	23,499	12,207									
31							39,979	27,161	18,311															
32																								
33																								
34																								
35																								
36																								
37																								
38																								
39																								
40																								
41																								

Depth (ft)	LIF-12	MW-35			LIF-43	MW-17		LIF-46	MW-50			LIF-56	MW-51			Depth (ft)
	%RE	TEPH	TCE	TVOC	%RE	TCE	TVOC	%RE	TEPH	TCE	TVOC	%RE	TEPH	TCE	TVOC	
	Apr 2012	Dec 2012			Nov 2012	Dec 2012		Nov 2012	Dec 2012			Nov 2012	Dec 2012			
1	58.8				1.2			0.9				0.7				1
2	87.2				1			2.3	898	5.4	7.2	0.5				2
3	42.2	25,800	8.64	1,874	13.1	37	50.18	5.4				0.5	2,350	2.86	5.22	3
4	32.7				15.9			5.9				5.2				4
5	33.4				21.9			18.6				9.1				5
6	35.2				17			25.4				8.6				6
7	57.5				15.3			21.6				3.5				7
8	106				14.7			43.1				0.5				8
9	53.9				3.4			23				0.5				9
10	60.3				3.1			0.5				0.6				10
11	2.8				0.5			0.5				0.4				11
12	1.6				0.4			0.4				0.5				12
13	0.7				0.5			0.4				0.4				13
14	0.6															14
15																15
16																16
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37																37
38																38
39																39
40																40
41																41

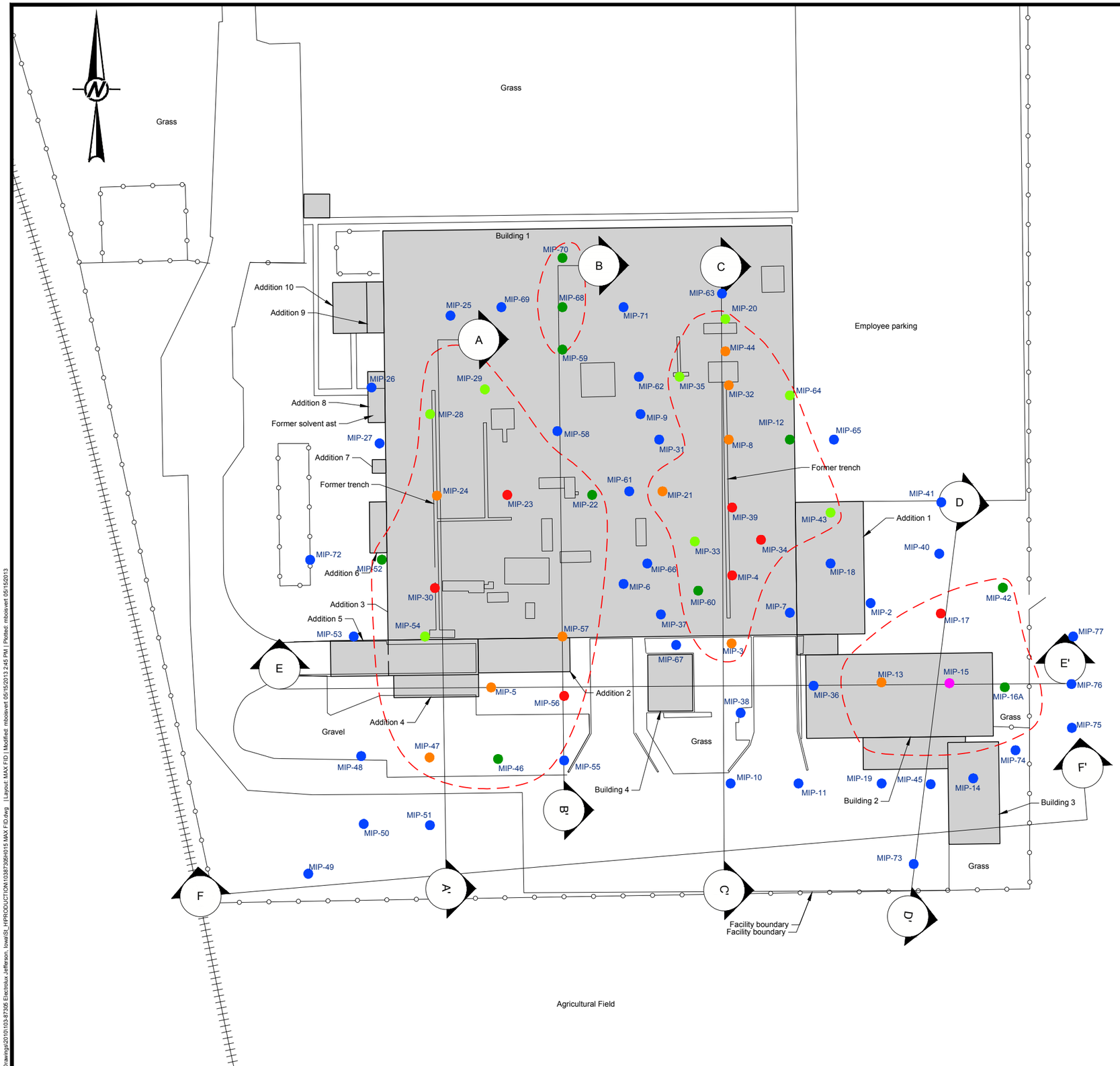
Notes:
PID (photoionization detector), FID (flame ionization detector), and XSD (halogen specific detector) results in uV (microvolts).
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria for MIP and LIF are different for April and Nov data due to differences in the detectors background values at the time of survey.
= Soil sample concentrations are displayed over the sampled interval in ug/kg (micrograms per kilogram) for TVOCS and mg/kg (milligrams per kilogram) for TEPH
= Groundwater (GW) results displayed over the screened interval of the well in ug/L (micrograms per liter)
TEPH = Total extractable petroleum hydrocarbons
TVOCs = total volatile organic compounds - includes the sum of all detected VOC parameters
TCE = trichloroethene
NAPL = Non-aqueous phase liquid
NS = Not Sampled
ND = no VOCs detected

Color flood criteria:

	Min	Mid	Max
il 2012: MIP-01 to MIP-51, LIF-01 to LIF			
PID	70,000	150,000	1,500,000
FID	70,000	150,000	1,500,000
XSD	20,000	40,000	1,000,000
LIF	0.6	2.1	100
v 2012: MIP-52 to MIP-77, LIF-25 to LIF			
PID	30,000	100,000	1,500,000
FID	30,000	100,000	1,500,000
XSD	15,000	30,000	1,000,000
LIF	0.2	2.1	100

Prepared by: ATK
Checked by: NSC
Reviewed by: APTM

Golder Associates



LEGEND

- Fence
- Edge of gravel
- MIP-20 — Membrane interface probe location
- Building
- Former Buildings (slab remains)
- Interpreted approximate extent of FID response above baseline. This line does not represent the delineation of soil and/or groundwater impacts above any regulatory standard and/or risk-based clean-up standard and does not represent the extent of soil and/or groundwater requiring remediation.
- A — Cross section location and direction

FID RESPONSE

- 15,000,000 uV
- 5,000,000 uV
- 2,000,000 uV
- 1,000,000 uV
- 500,000 uV
- 200,000 uV
- 100,000 uV

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure shows the maximum FID results obtained from the MIP survey performed in April and November 2012. The MIP borings were advanced to a maximum depth of approximately 30 feet below ground surface. The color flood indicates the relative FID response observed at each MIP location.

0 30 60 90
SCALE FEET

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
MAXIMUM FID RESPONSE

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H015 MAX FID
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	9
CHECK	JSP	2013-05-15		
REVIEW	APTM	2013-05-15		

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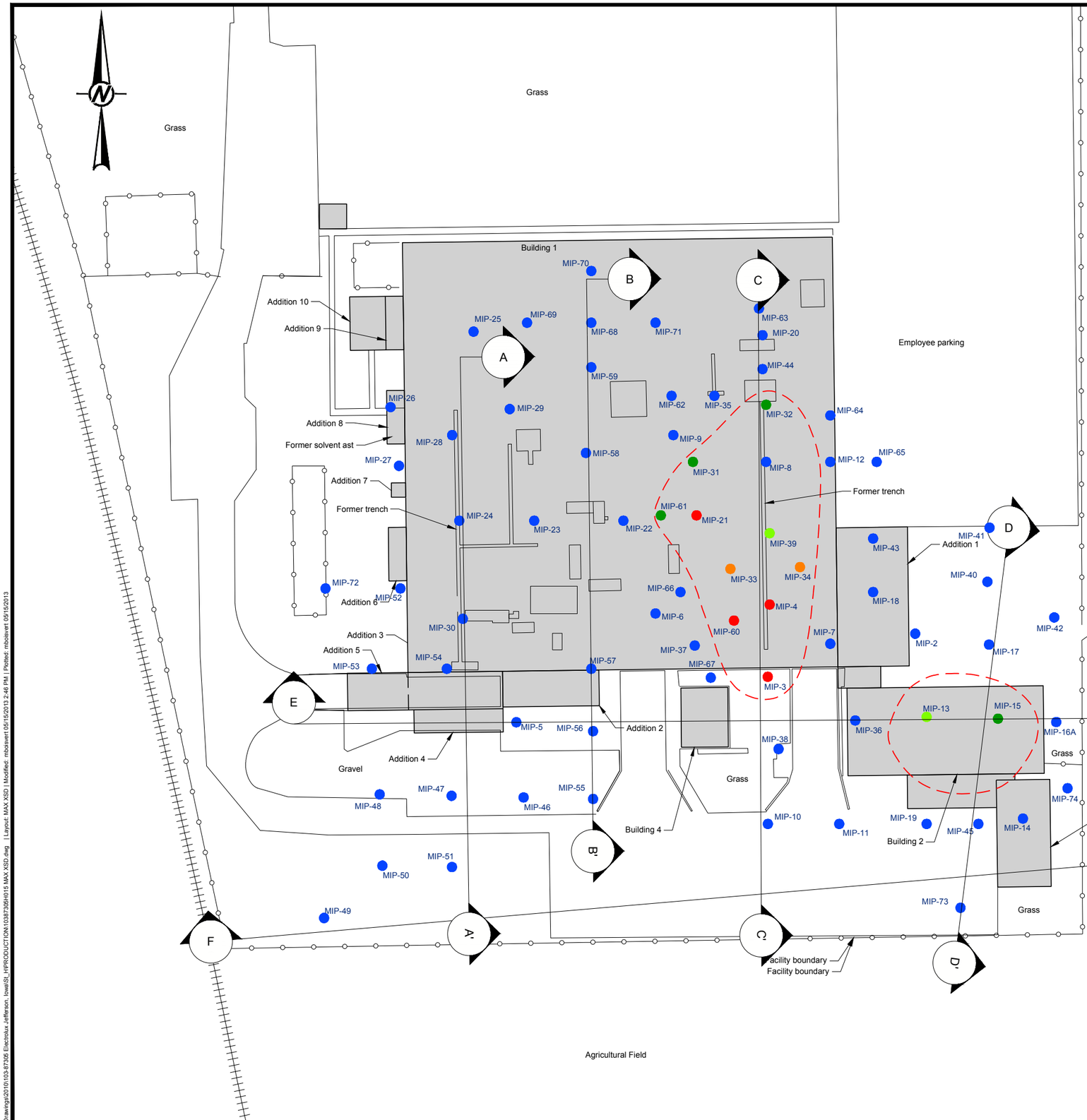

LEGEND

- Fence
- Edge of gravel
- MIP-20 — Membrane interface probe location
- Building
- Former Buildings (slab remains)
- Interpreted approximate extent of XSD response above baseline. This line does not represent the delineation of soil and/or groundwater impacts above any regulatory standard and/or risk-based clean-up standard and does not represent the extent of soil and/or groundwater requiring remediation.
- A — Cross section location and direction

XSD RESPONSE

- 5,000,000 uV
- 2,000,000 uV
- 1,000,000 uV
- 500,000 uV
- 200,000 uV
- 100,000 uV
- 50,000 uV

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure shows the maximum XSD results obtained from the MIP survey performed in April and November 2012. The MIP borings were advanced to a maximum depth of approximately 30 feet below ground surface. The color flood indicates the relative FID response observed at each MIP location.

0 30 60 90
SCALE FEET

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
MAXIMUM XSD RESPONSE

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H015 MAX XSD
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	
CHECK	JSP	2013-05-15		10
REVIEW	APTM	2013-05-15		

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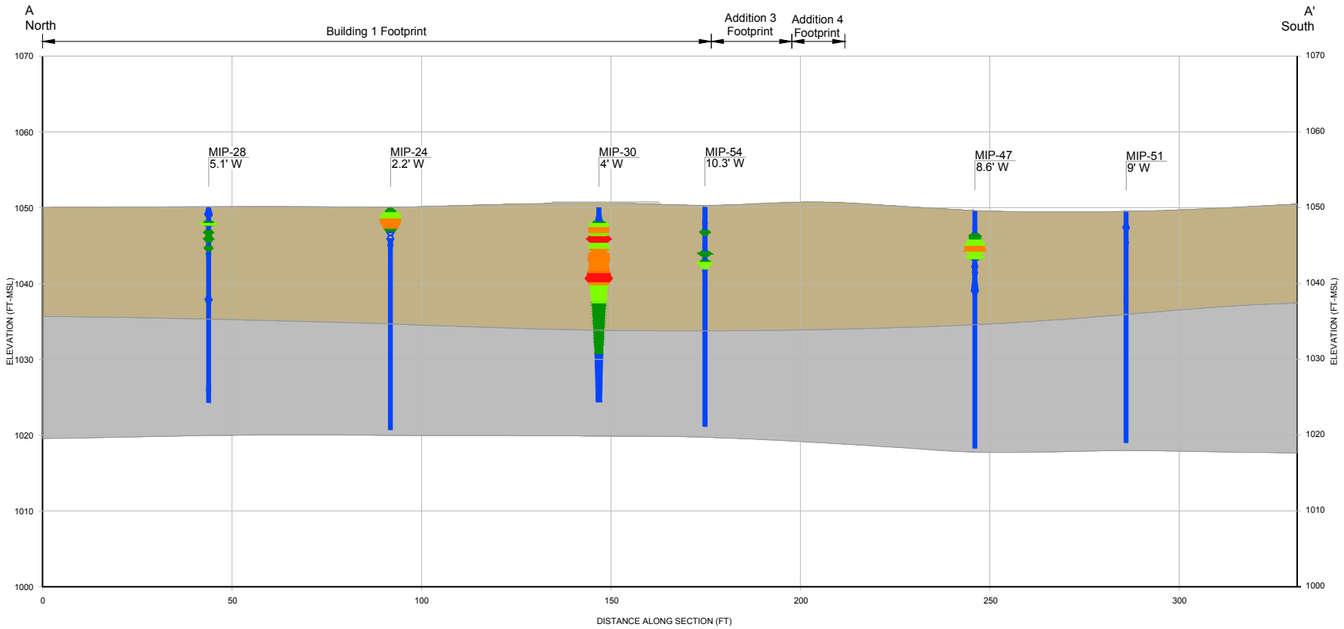
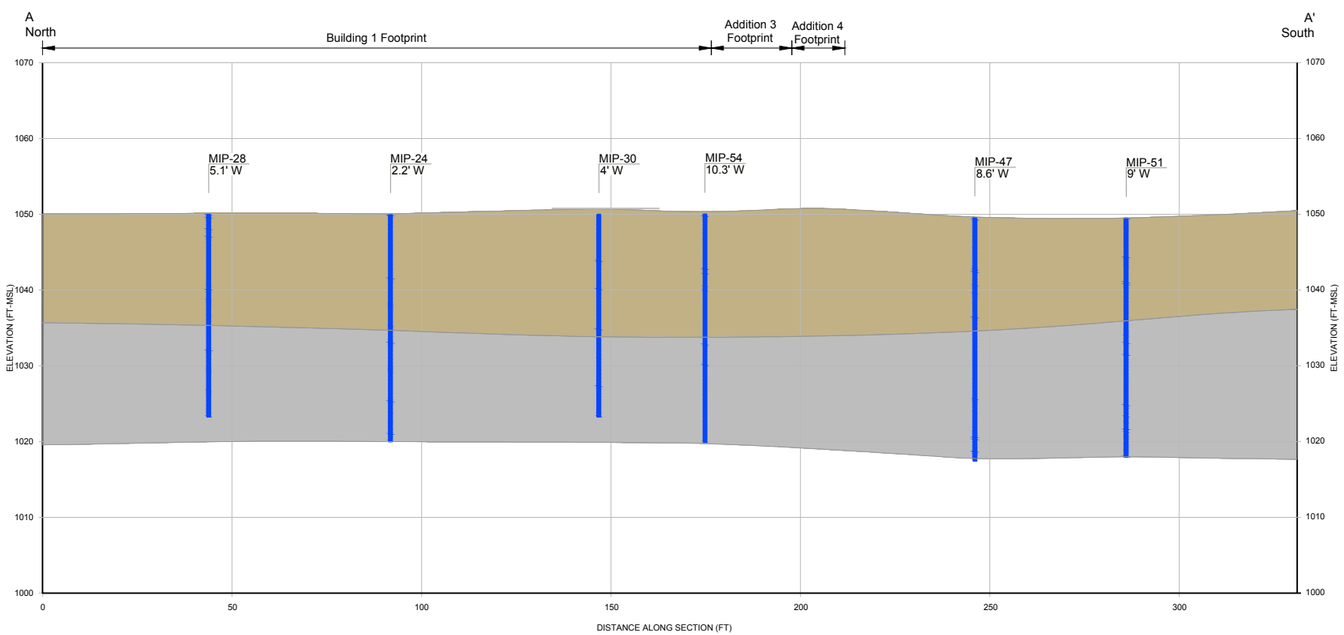


A FID RESPONSE



A XSD RESPONSE

FID RESPONSE

15,000,000 uV
5,000,000 uV
2,000,000 uV
1,000,000 uV
500,000 uV
200,000 uV
100,000 uV

XSD RESPONSE

5,000,000 uV
2,000,000 uV
1,000,000 uV
500,000 uV
200,000 uV
100,000 uV
50,000 uV

0 20 40 60
SCALE 2x Exaggeration FEET

LEGEND

MIP-30 4' W — MIP I.D. Offset direction and distance C/L = centerline

MIP response (see scale)

GEOLOGIC LAYER

Oxidized brown till

Unoxidized gray till

NOTES

1.) Golder developed the geologic cross sections using Environmental Visualization System (EVS) software developed by CTech Corporation (Version 9.84). Where necessary, Golder adjusted EVS output using professional judgment.

2.) Geologic contacts illustrated between and below borings are inferred and should not be interpreted as exact indicators of geologic conditions at, between or below borings.

3.) The projection of well screens onto geologic units may not reflect actual geologic conditions at the well screen interval due to variations in the elevation of geologic layers with distance from the cross-section centerline.

ABBREVIATIONS

ft-msl = Feet Mean Sea Level

MIP = Membrane Interface Probe

FID = Flame Ionization Detector

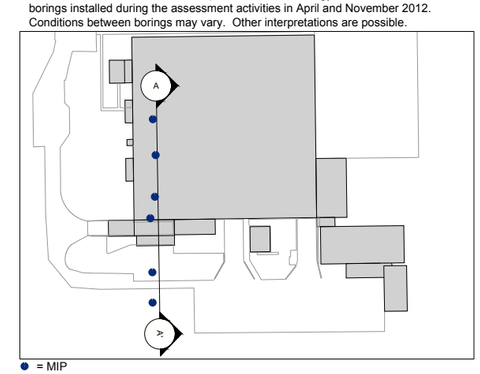
XSD = Halogen Specific Detector

uV = microvolts

FIGURE NARRATIVE

This figure shows the FID and XSD responses for the north-south cross-section (A - A') on the western side of Building 1. The cross-sections include data obtained during the April and November 2012 MIP assessments. The color flood and diameter of the discs shown on the cross-sections indicate the relative FID and XSD response at each MIP location. The diameter of the borings is exaggerated proportionally to the MIP response.

This figure also illustrates the interpreted geologic conditions. Contacts shown in the cross-section are Golder's interpretation of the lithology, obtained from borings installed during the assessment activities in April and November 2012. Conditions between borings may vary. Other interpretations are possible.



● = MIP

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE

CROSS SECTION A-A' FID AND XSD RESULTS AND GEOLOGIC INTERPRETATION

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H010 A
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	11
CHECK	JSP	2013-05-15		
REVIEW	APTM	2013-05-15		

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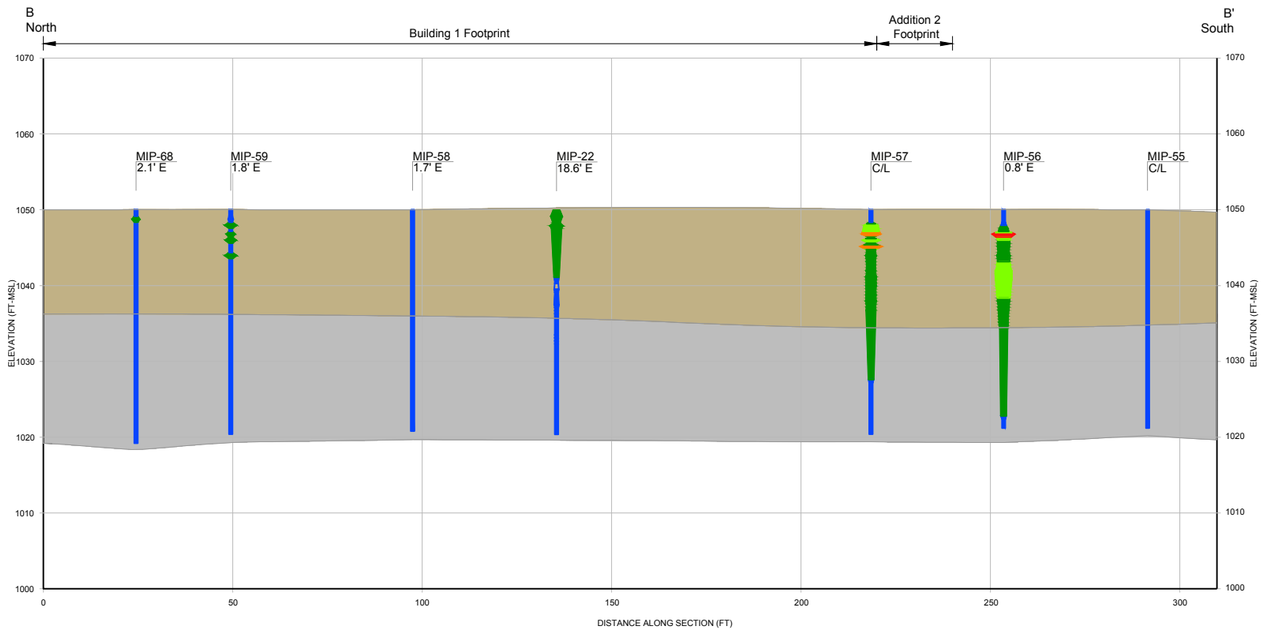
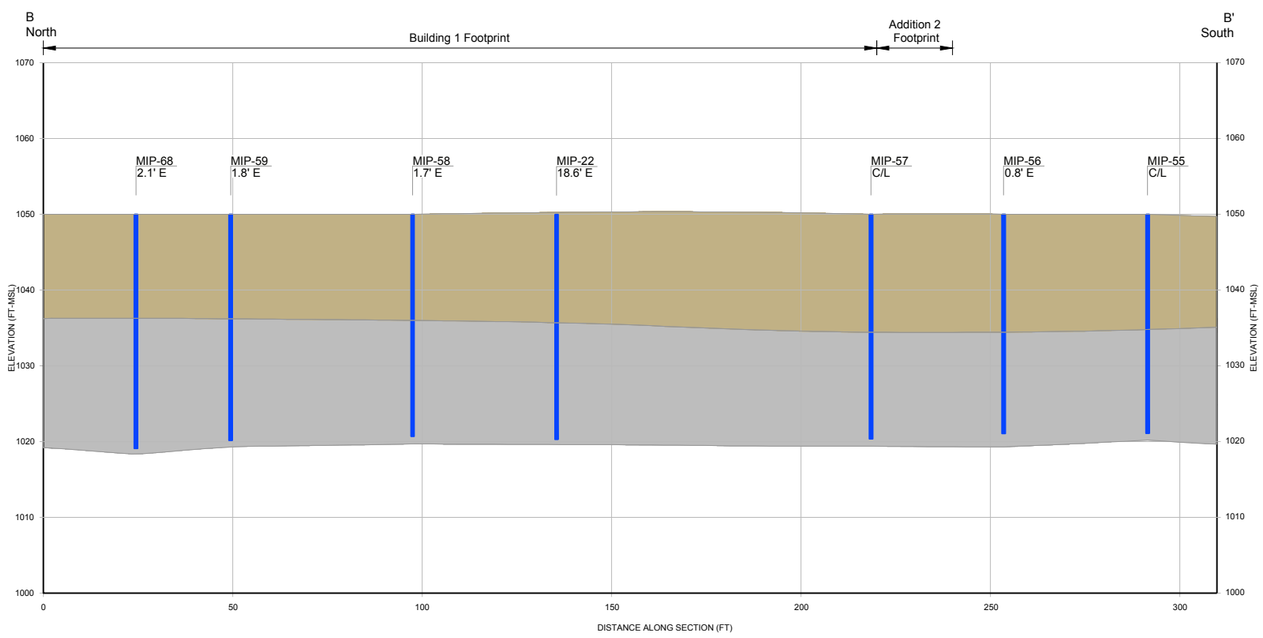


B FID RESPONSE



B XSD RESPONSE

FID RESPONSE

- 15,000,000 uV
- 5,000,000 uV
- 2,000,000 uV
- 1,000,000 uV
- 500,000 uV
- 200,000 uV
- 100,000 uV

XSD RESPONSE

- 5,000,000 uV
- 2,000,000 uV
- 1,000,000 uV
- 500,000 uV
- 200,000 uV
- 100,000 uV
- 50,000 uV

0 20 40 60
SCALE 2x Exaggeration FEET

LEGEND

MIP-30
4' W

MIP I.D.
Offset direction and distance
C/L = centerline

MIP response (see scale)

GEOLOGIC LAYER

- Oxidized brown till
- Unoxidized gray till

NOTES

1.) Golder developed the geologic cross sections using Environmental Visualization System (EVS) software developed by CTech Corporation (Version 9.84). Where necessary, Golder adjusted EVS output using professional judgment.

2.) Geologic contacts illustrated between and below borings are inferred and should not be interpreted as exact indicators of geologic conditions at, between or below borings.

3.) The projection of well screens onto geologic units may not reflect actual geologic conditions at the well screen interval due to variations in the elevation of geologic layers with distance from the cross-section centerline.

ABBREVIATIONS

ft-msl = Feet Mean Sea Level

MIP = Membrane Interface Probe

FID = Flame Ionization Detector

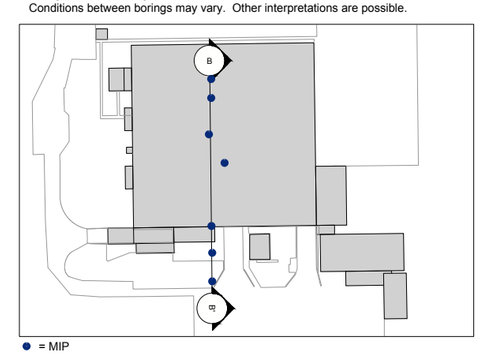
XSD = Halogen Specific Detector

uV = microvolts

FIGURE NARRATIVE

This figure shows the FID and XSD responses for the north-south cross-section (B - B') on the central portion of Building 1. The cross-sections include data obtained during the April and November 2012 MIP assessments. The color flood and diameter of the discs shown on the cross-sections indicate the relative FID and XSD response at each MIP location. The diameter of the borings is exaggerated proportionally to the MIP response.

This figure also illustrates the interpreted geologic conditions. Contacts shown in the cross-section are Golder's interpretation of the lithology, obtained from borings installed during the assessment activities in April and November 2012. Conditions between borings may vary. Other interpretations are possible.



● = MIP

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE

CROSS SECTION B-B'
FID AND XSD RESULTS
AND GEOLOGIC INTERPRETATION

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H011 B
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	
CHECK	JSP	2013-05-15		12
REVIEW	APTM	2013-05-15		

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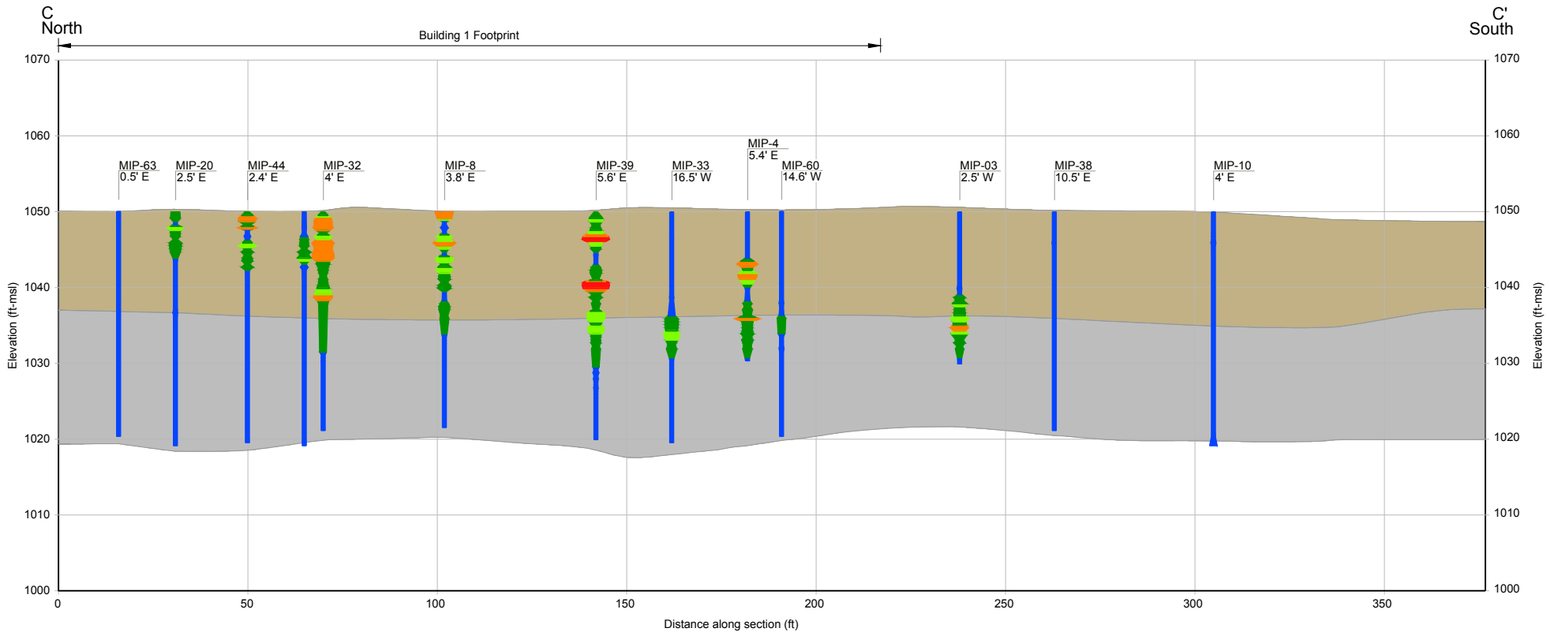
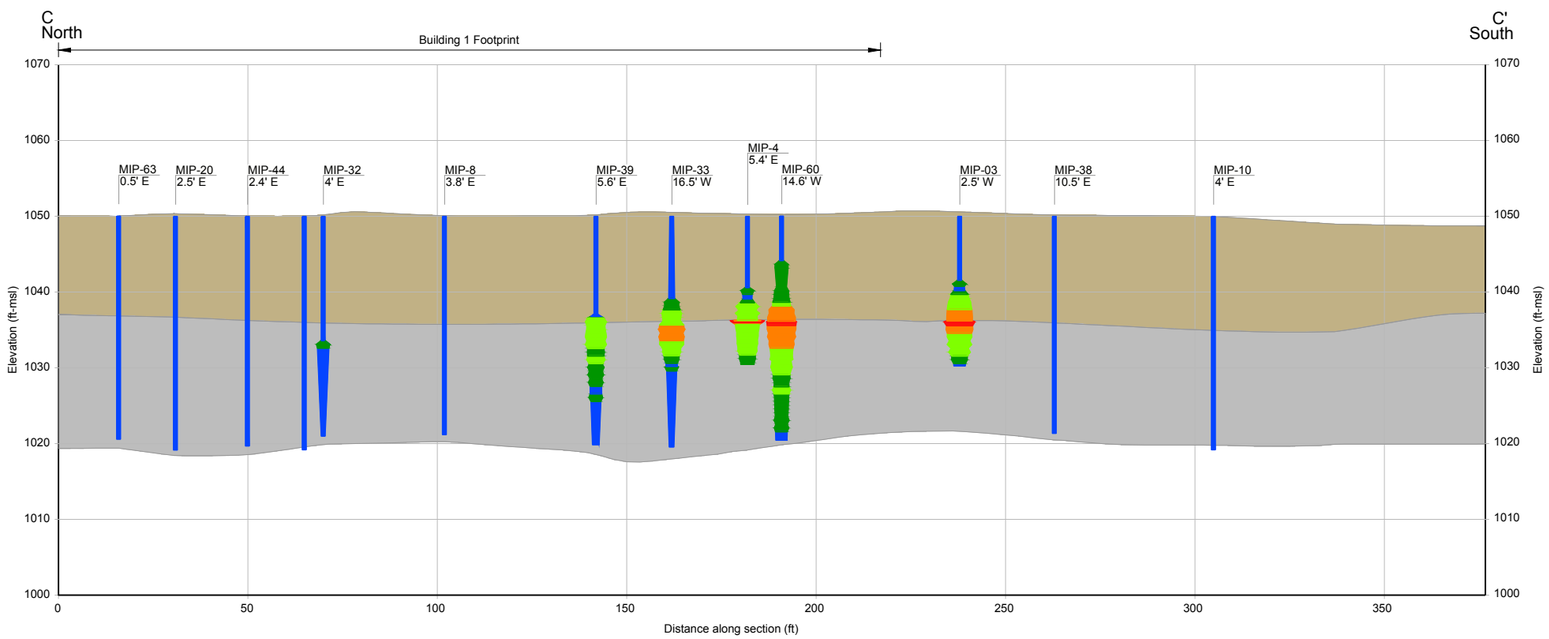


C FID RESPONSE



C XSD RESPONSE

FID RESPONSE

15,000,000 uV
5,000,000 uV
2,000,000 uV
1,000,000 uV
500,000 uV
200,000 uV
100,000 uV

XSD RESPONSE

5,000,000 uV
2,000,000 uV
1,000,000 uV
500,000 uV
200,000 uV
100,000 uV
50,000 uV

0 20 40 60
SCALE 2X EXAGGERATION FEET

LEGEND

MIP-30 4' W — MIP I.D. Offset direction and distance C/L = centerline

MIP response (see scale)

GEOLOGIC LAYER

Oxidized brown till

Unoxidized gray till

NOTES

1.) Golder developed the geologic cross sections using Environmental Visualization System (EVS) software developed by CTech Corporation (Version 9.84). Where necessary, Golder adjusted EVS output using professional judgment.

2.) Geologic contacts illustrated between and below borings are inferred and should not be interpreted as exact indicators of geologic conditions at, between or below borings.

3.) The projection of well screens onto geologic units may not reflect actual geologic conditions at the well screen interval due to variations in the elevation of geologic layers with distance from the cross-section centerline.

ABBREVIATIONS

ft-msl = Feet Mean Sea Level

MIP = Membrane Interface Probe

FID = Flame Ionization Detector

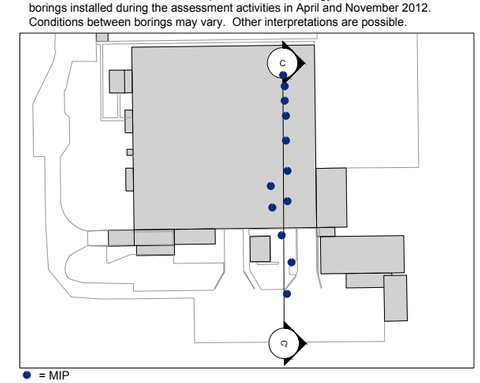
XSD = Halogen Specific Detector

uV = microvolts

FIGURE NARRATIVE

This figure shows the FID and XSD responses for the north-south cross-section (C - C') on the eastern side of Building 1. The cross-sections include data obtained during the April and November 2012 MIP assessments. The color flood and diameter of the discs shown on the cross-sections indicate the relative FID and XSD response at each MIP location. The diameter of the borings is exaggerated proportionally to the MIP response.

This figure also illustrates the interpreted geologic conditions. Contacts shown in the cross-section are Golder's interpretation of the lithology, obtained from borings installed during the assessment activities in April and November 2012. Conditions between borings may vary. Other interpretations are possible.



● = MIP

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
CROSS SECTION C-C' FID AND XSD RESULTS AND GEOLOGIC INTERPRETATION

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H005 C
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	13
CHECK	JSP	2013-05-15		
REVIEW	APTM	2013-05-15		

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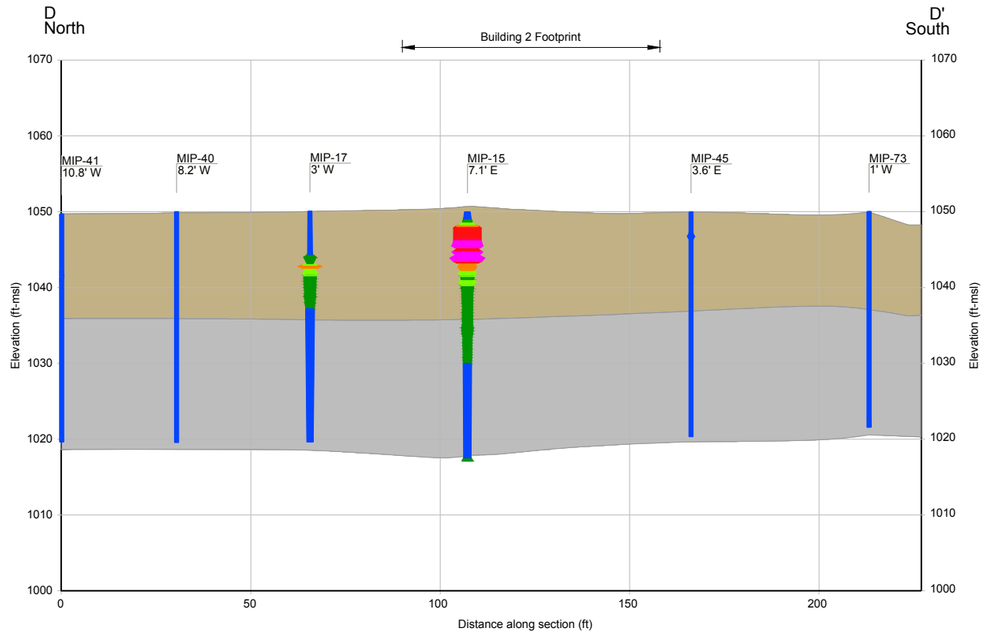
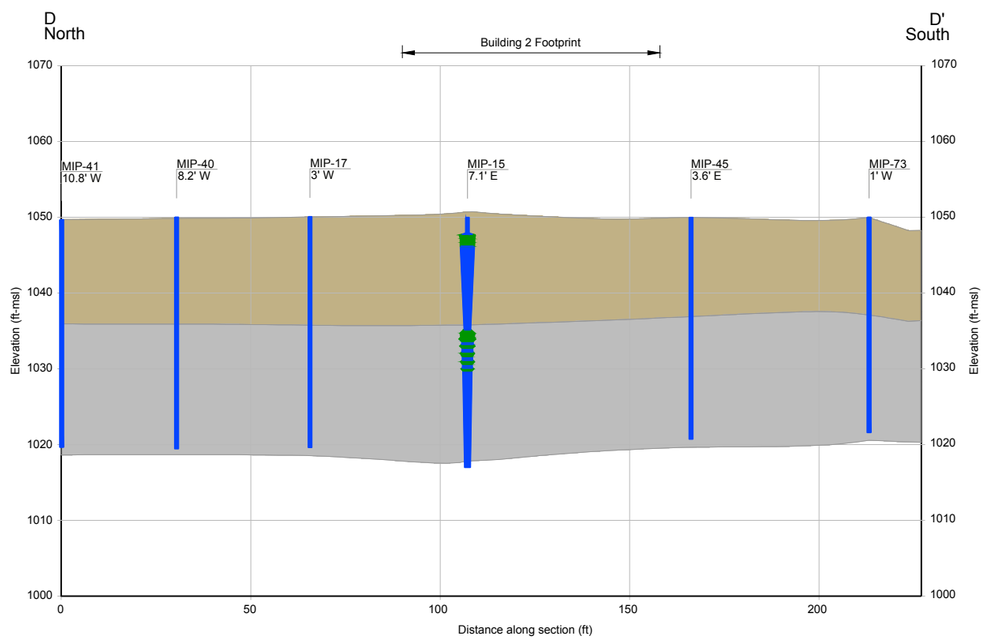
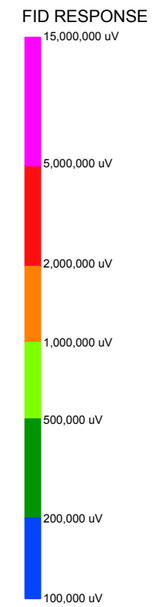
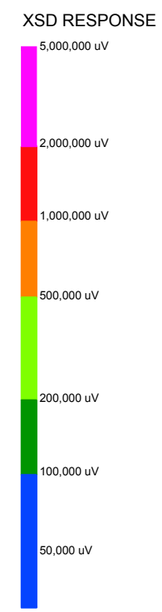


D FID RESPONSE



D XSD RESPONSE





0 20 40 60
SCALE 2X EXAGGERATION FEET

LEGEND

MIP-30
4' W

MIP I.D.
Offset direction and distance
C/L = centerline

MIP response (see scale)

GEOLOGIC LAYER

Oxidized brown till

Unoxidized gray till

NOTES

1.) Golder developed the geologic cross sections using Environmental Visualization System (EVS) software developed by CTech Corporation (Version 9.84). Where necessary, Golder adjusted EVS output using professional judgment.

2.) Geologic contacts illustrated between and below borings are inferred and should not be interpreted as exact indicators of geologic conditions at, between or below borings.

3.) The projection of well screens onto geologic units may not reflect actual geologic conditions at the well screen interval due to variations in the elevation of geologic layers with distance from the cross-section centerline.

ABBREVIATIONS

ft-msl = Feet Mean Sea Level

MIP = Membrane Interface Probe

FID = Flame Ionization Detector

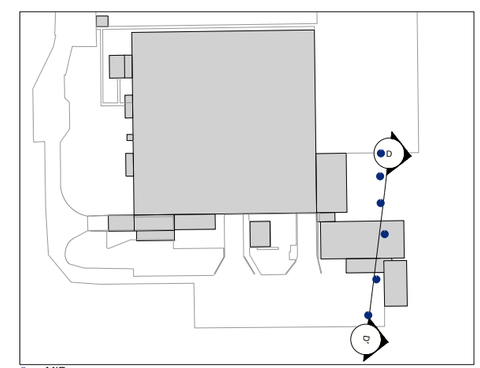
XSD = Halogen Specific Detector

uV = microvolts

FIGURE NARRATIVE

This figure shows the FID and XSD responses for the north-south cross-section (D - D') on the eastern side of Building 2. The cross-sections include data obtained during the April and November 2012 MIP assessments. The color flood and diameter of the discs shown on the cross-sections indicate the relative FID and XSD response at each MIP location. The diameter of the borings is exaggerated proportionally to the MIP response.

This figure also illustrates the interpreted geologic conditions. Contacts shown in the cross-section are Golder's interpretation of the lithology, obtained from borings installed during the assessment activities in April and November 2012. Conditions between borings may vary. Other interpretations are possible.



● = MIP

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

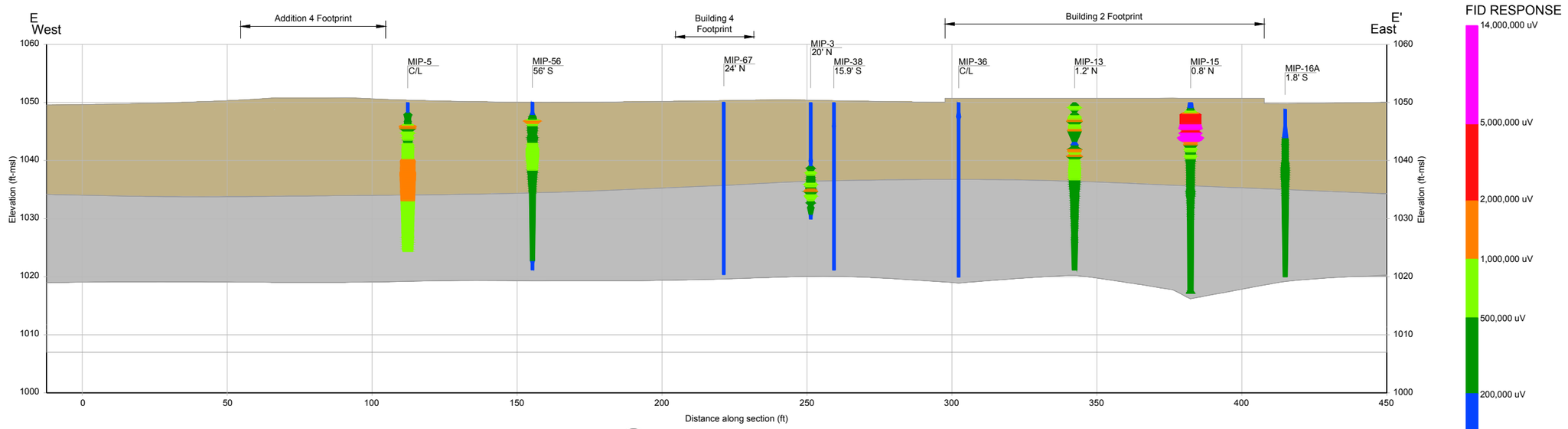
TITLE

CROSS SECTION D-D'
FID AND XSD RESULTS
AND GEOLOGIC INTERPRETATION

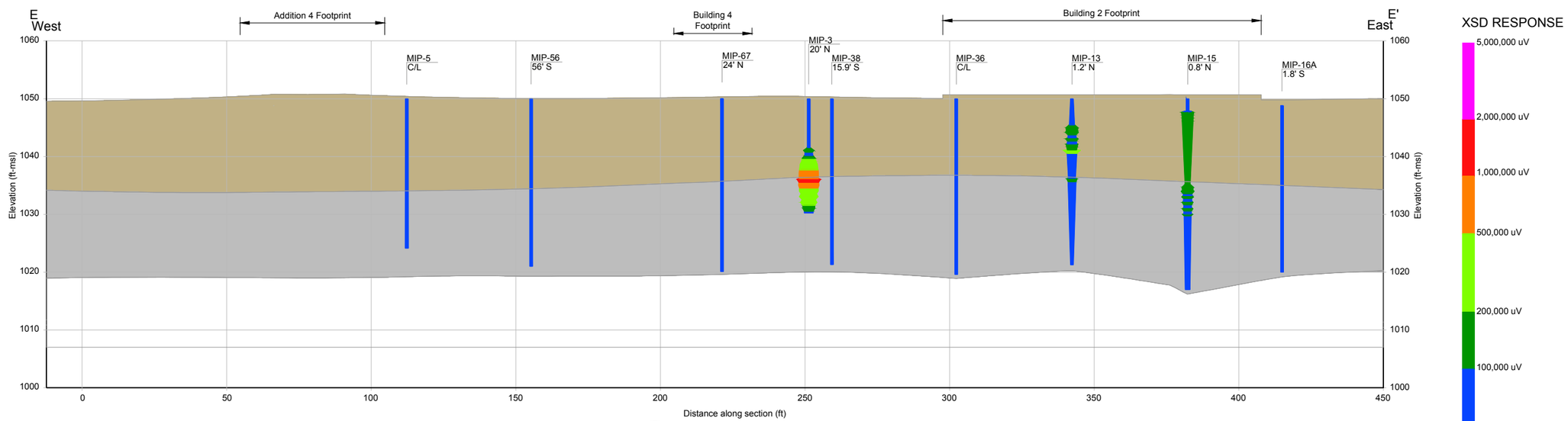
Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H012 D
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	
CHECK	JSP	2013-05-15		14
REVIEW	APTM	2013-05-15		

J:\Drawings\2010\103-87305 Electrolux Jefferson, Iowa\SI_HP\PRODUCTION\10387305H012 D.dwg | Layout: D FID XSD | Modified: mbolsevert 05/02/2013 11:07 AM | Plotted: mbolsevert 05/15/2013



E FID RESPONSE



E XSD RESPONSE

LEGEND

MIP-30
4' W

MIP I.D.
Offset direction and distance
C/L = centerline

MIP response (see scale)

GEOLOGIC LAYER

Oxidized brown till

Unoxidized gray till

NOTES

1.) Golder developed the geologic cross sections using Environmental Visualization System (EVS) software developed by CTech Corporation (Version 9.84). Where necessary, Golder adjusted EVS output using professional judgment.

2.) Geologic contacts illustrated between and below borings are inferred and should not be interpreted as exact indicators of geologic conditions at, between or below borings.

3.) The projection of well screens onto geologic units may not reflect actual geologic conditions at the well screen interval due to variations in the elevation of geologic layers with distance from the cross-section centerline.

ABBREVIATIONS

ft-msl = Feet Mean Sea Level

MIP = Membrane Interface Probe

FID = Flame Ionization Detector

XSD = Halogen Specific Detector

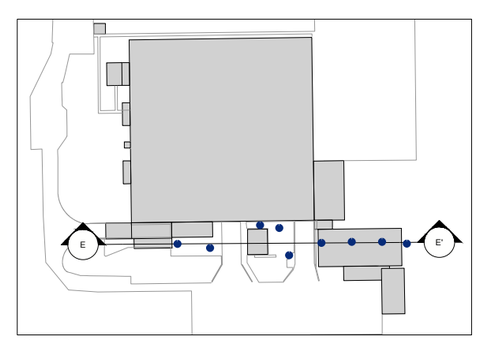
uV = microvolts

FIGURE NARRATIVE

This figure shows the FID and XSD responses for the east-west cross-section (E - E') on the area south of Building 1 and center of Building 2. The cross-sections include data obtained during the April and November 2012 MIP assessments. The color flood and diameter of the discs shown on the cross-sections indicate the relative FID and XSD response at each MIP location. The diameter of the borings is exaggerated proportionally to the MIP response.

This figure also illustrates the interpreted geologic conditions. Contacts shown in the cross-section are Golder's interpretation of the lithology, obtained from borings installed during the assessment activities in April and November 2012. Conditions between borings may vary. Other interpretations are possible.

0 20 40 60
SCALE 2X EXAGGERATION FEET



PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
CROSS SECTION E-E'
FID AND XSD RESULTS
AND GEOLOGIC INTERPRETATION

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H013 E
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	
CHECK	JSP	2013-05-15		15
REVIEW	APTM	2013-05-15		

J:\Drawings\2010\103-87305 Electrolux Jefferson, Iowa\St_HPRODUCTION\10387305H013 E.dwg | Layout: E FID XSD | Modified: mbolsvert 05/02/2013 3:19 PM | Plotted: mbolsvert 05/15/2013

Tuesday, May 01, 2012

11253 91st Ave N.
Maple Grove, MN 55369
763-424-4803
FAX: 763-424-9452

-Direct Sensing Report, MIP-

Client:	**Golder Associates**
Project Name:	**Electrolux**
Location:	**Jefferson, IA**
Project Number:	**047-MNDS-12MIP**

The analysis and opinions expressed in this report are based upon data obtained from the samples collected at the indicated locations and from other information discussed in this report. Exceptions, if any, are discussed in the accompanying comments section of this report. This report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted laboratory practices. Reported results shall not be reproduced, except in full, without written approval of Matrix Environmental, LLC. The sample results relate only to the analytes of interest tested. No warranties, expressed or implied are intended or made.

I certify that the data contained in this final report has been generated and reviewed in accordance with approved methods and our Standard Operating Procedure. Release of this final report is authorized by Laboratory management, which is verified by the following signature.

Approval Signature Date 5/1/12

MIP SYSTEM DESCRIPTION AND ON-SITE CHEMICAL ANALYSIS

VOCs are semi-quantitatively analyzed in-situ using a membrane interface probe (MIP). The probe is pushed into the ground at a rate of 1 foot per minute (including 45 second residence time). The membrane block heats to a temperature of approximately 121°C. Any volatile organic compounds present diffuse across the membrane into the trunkline carrier gas tubing and are brought to the surface and into the GC analytical system. The carrier gas containing samples from the subsurface then passes through a naphion dryer and/or heated GC oven to remove any moisture prior to detector analysis. Compounds appropriate for the detectors and in high enough concentrations (ppm) will produce an electrical signal which is analyzed.

The GC system is comprised of the following three detector system – a PID/FID tandem and XSD detector. The MIP's trunkline return gas is Y-split in the GC to accomplish this detector configuration. The PID has a 10.0 eV lamp and will ionize multiple-bonded petroleum or halogenated hydrocarbons with an ionization potential less than the 10.0 eV. The FID will respond to all types of hydrocarbons including methane or halogenated hydrocarbons (generally the FID response gives a good indication of total hydrocarbons present.) The XSD responds to halogenated compounds.

Electrical Conductivity (EC) is a measure of the soils ability to conduct an electrical current between two dipoles on the MIP/EC probe. Conductivity is the reciprocal of electrical resistivity and has the units (in our application) of millisiemens per meter (mS/m). Since soil is in the pathway of the charge flow, the grain size can be determined by comparing the EC log to a soil boring. Conductivity readings in the 100s indicate smaller grain (size such as clay). Larger grain size (sand and gravels) are typically in the 10s of mS/m range. Prior to every log the EC point of the MIP probe is checked for proper operation by performing a voltage test with a voltage meter and a conductivity test with a test block.

Since the MIP system is a screening tool, some laboratory analysis of soil or groundwater samples or some historical analytical data is needed in order to obtain optimum MIP log correlation. The following quality assurance/control measures are routinely conducted to ensure the validity of the analytical results:

> *Chemical Response Test*: MIP data needs to be validated with passing QC at the beginning and end of every log. The probe is immersed into a 500 mL cylinder of water containing the compound(s) of interest. This test will be performed at multiple concentration levels at the beginning of each day to verify detector response and generate detection limits of the system (For example: 3 levels of TCE @ 1, 5, & 50 ppm). QC tests of at least one level are checked between each boring to determine system integrity and monitor membrane and detector fluctuations. The results of this are listed in the QA/QC report.
>
> *Butane response*: May be run between each boring by dispensing butane over the membrane. Measuring the lag time of the carrier gas from the probe to the detectors is used to determine trip time and to verify FID detector response.
>
> *Continuity check*: Performed before and after each boring to verify system continuity throughout the project for the electrical conductivity data.

DISCUSSION AND COMMENTS

Matrix performed chemical response tests at 1, 5, 25 and 50 ppm TCE at various times throughout the project. At a minimum, one set of 0.5, or 5 ppm TCE response tests were performed before or after each log on the MIP system (PID/FID & XSD). The response tests appeared normal and were indicative of a functional MIP system. Some post-log QC test were use for the sequential MIP logs pre-log QC tests if this log immediately followed.

For each log, the probe was advanced one foot and then the probe was allowed residence time of 45 seconds or longer - time for the probe to reach temperature and for contaminants to diffuse through the membrane and into the trunkline. The trip time was about 60 seconds for the trunkline.

Electrical conductivity (EC) data was collected simultaneously at each MIP location. The EC was tested before and after each log for continuity and performance. There were two failures of over 10% (see MIP-01 pre-log, MIP-3 post-log) (Geoprobe's specification is 10%). Since the EC test block failed , the EC system was then tested internally through Geoprobe's troubleshooting software and it was determined that the failures as likely caused by a bad solder connection between a printed circuit board stack. Matrix discussed this problem with the MIP specialist and the Electrical engineer at Geoprobe. It was determined that the EC data may be very slightly suppressed, but that the data surrounding these failures was still a good representation of electrical conductivity. The EC board was inspected and stabilized after MIP-03 and as a result the EC failures were eliminated for the remainder of the project.

MATRIX ENVIRONMENTAL LLC

11253 91st Ave. N.
Maple Grove, Minnesota 55369
(763) 424-4803
fax (763) 424-9452

Client: Golder Associates
Contact: Jim Peace
Services: MIP Logging

Date: 04/16/12 - 04/24/12
Project: Electrolux
Project #: 047-MNDS-12MP
Address: Jefferson, IA

MIP Log Summary

File Log ID	Date	Latitude	Longitude	Final Depth *(ft)*	Comments
Emulation	4/16/2012	NA	NA	NA	500 mL water from MW-19 response tested (see post-log QC)
MIP-01	4/16/2012	NA	NA	29.85	Used probe # MP6520 #4262R for entire project (membrane changes indicated below), EC pre-log test failure
MIP-02	4/16/2012	NA	NA	29.90	
MIP-03	4/16/2012	NA	NA	20.05	EC post-log test failure (problem resolved for remainder of project)
MIP-04	4/17/2012	NA	NA	20.00	
MIP-05	4/17/2012	NA	NA	25.95	
MIP-06	4/17/2012	NA	NA	30.40	
MIP-07	4/17/2012	NA	NA	29.90	
MIP-08	4/17/2012	NA	NA	28.80	
MIP-09	4/17/2012	NA	NA	19.90	
MIP-10	4/17/2012	NA	NA	30.85	refusal @ 30.85'
MIP-11	4/18/2012	NA	NA	28.85	refusal @ 28.85'
MIP-12	4/18/2012	NA	NA	30.05	
MIP-13	4/18/2012	NA	NA	28.95	
MIP-14	4/18/2012	NA	NA	30.55	
MIP-15	4/18/2012	NA	NA	31.10	
MIP-16	4/18/2012	NA	NA	29.70	refusal @ 29.70' post-log QC is low, changed membrane after MIP-16 (MP3512 face # R125)
MIP-16A	4/18/2012	NA	NA	28.85	
MIP-17	4/18/2012	NA	NA	30.75	
MIP-18	4/18/2012	NA	NA	29.90	
MIP-19	4/19/2012	NA	NA	29.90	
MIP-20	4/19/2012	NA	NA	30.90	
MIP-21	4/19/2012	NA	NA	24.80	post-log QC low, changed membrane after MIP-21 (MP3512 face # R101)
MIP-22	4/19/2012	NA	NA	29.80	
MIP-23	4/19/2012	NA	NA	24.85	
MIP-24	4/19/2012	NA	NA	29.25	
			total Day 1-4	**703.80**	

MATRIX ENVIRONMENTAL LLC

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(763) 424-4803
fax (763) 424-9452

Client: Golder Associates
Contact: Jim Peace
Services: MIP Logging

Date: 04/16/12 - 04/24/12
Project: Electrolux
Project #: 047-MNDS-12MP
Address: Jefferson, IA

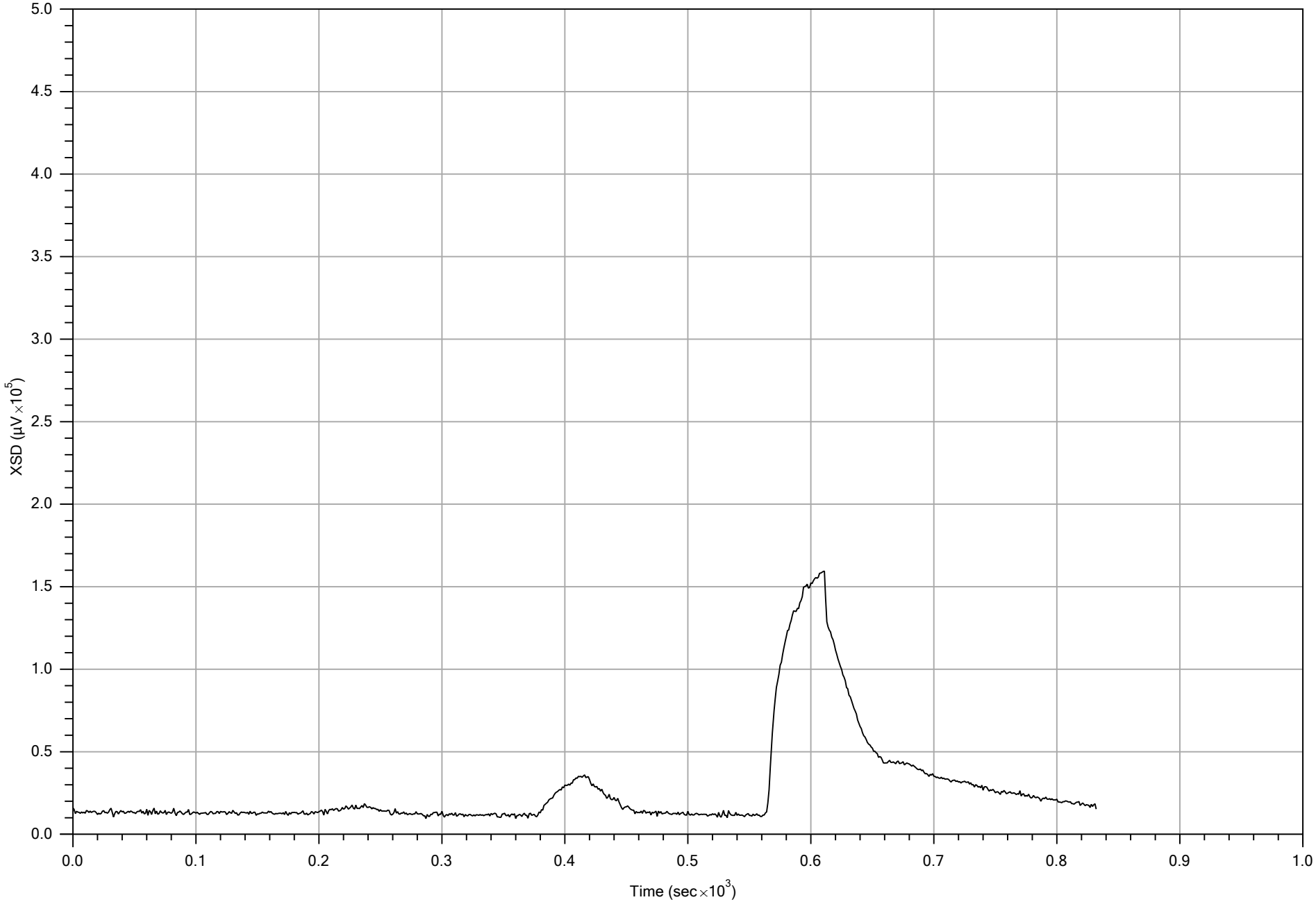
MIP Log Summary

File Log ID	Date	Latitude	Longitude	Final Depth *(ft)*	Comments
MIP-25	4/20/2012	NA	NA	29.80	refusal @ 29.8'
MIP-26	4/20/2012	NA	NA	20.25	
MIP-27	4/20/2012	NA	NA	29.15	refusal @ 18.85' start w/ probe # 4255
MIP-28	4/20/2012	NA	NA	26.00	Membrane appears punctured, changed membrane after MIP-28 (MP3512 face # R182)
MIP-29	4/20/2012	NA	NA	25.95	refsal @ 19'
MIP-30	4/20/2012	NA	NA	26.00	refusal @ 19.85'
MIP-31	4/20/2012	NA	NA	30.75	refusal @ 9.25', broken thermocouple
MIP-32	4/20/2012	NA	NA	29.10	refusal @ 13.55', pre-probed to 14' (same hole as 004), new probe #4256 (includes new membrane)
MIP-33	4/21/2012	NA	NA	30.55	refusal @ 30.55' Prior to MIP-33, changed PID lamp controller box. (4430 REV D, serial # 10961-1-901)
MIP-34	4/21/2012	NA	NA	30.55	refusal @ 30.55'
MIP-35	4/21/2012	NA	NA	30.95	refusal @ 30.95'
MIP-36	4/21/2012	NA	NA	30.35	refusal @ 30.35'
MIP-37	4/21/2012	NA	NA	30.30	refusal @ 30.30'
MIP-38	4/21/2012	NA	NA	28.85	refusal @ 28.85'
MIP-39	4/21/2012	NA	NA	30.30	refusal @ 30.30'
MIP-40	4/23/2012	NA	NA	30.60	refusal @ 30.60'
MIP-41	4/23/2012	NA	NA	30.25	refusal @ 30.25'
MIP-42	4/23/2012	NA	NA	29.50	refusal @ 29.50'
MIP-43	4/23/2012	NA	NA	31.45	refusal @ 2' Pre-probed to 4' Went back down same hole. refusal @ 31.45'
MIP-44	4/23/2012	NA	NA	30.75	refusal @ 30.75'
MIP-45	4/23/2012	NA	NA	29.65	refusal @ 29.65'
MIP-46	4/23/2012	NA	NA	29.95	refusal @ 29.95'
MIP-47	4/23/2012	NA	NA	31.35	refusal @ 31.35'
MIP-48	4/24/2012	NA	NA	30.40	refusal @ 30.40'
MIP-49	4/24/2012	NA	NA	31.95	refusal @ 31.95'
MIP-50	4/24/2012	NA	NA	32.45	refusal @ 32.45'
MIP-51	4/24/2012	NA	NA	30.80	refusal @ 30.80'
			total Day 5-8	**797.95**	

MIP LOGS

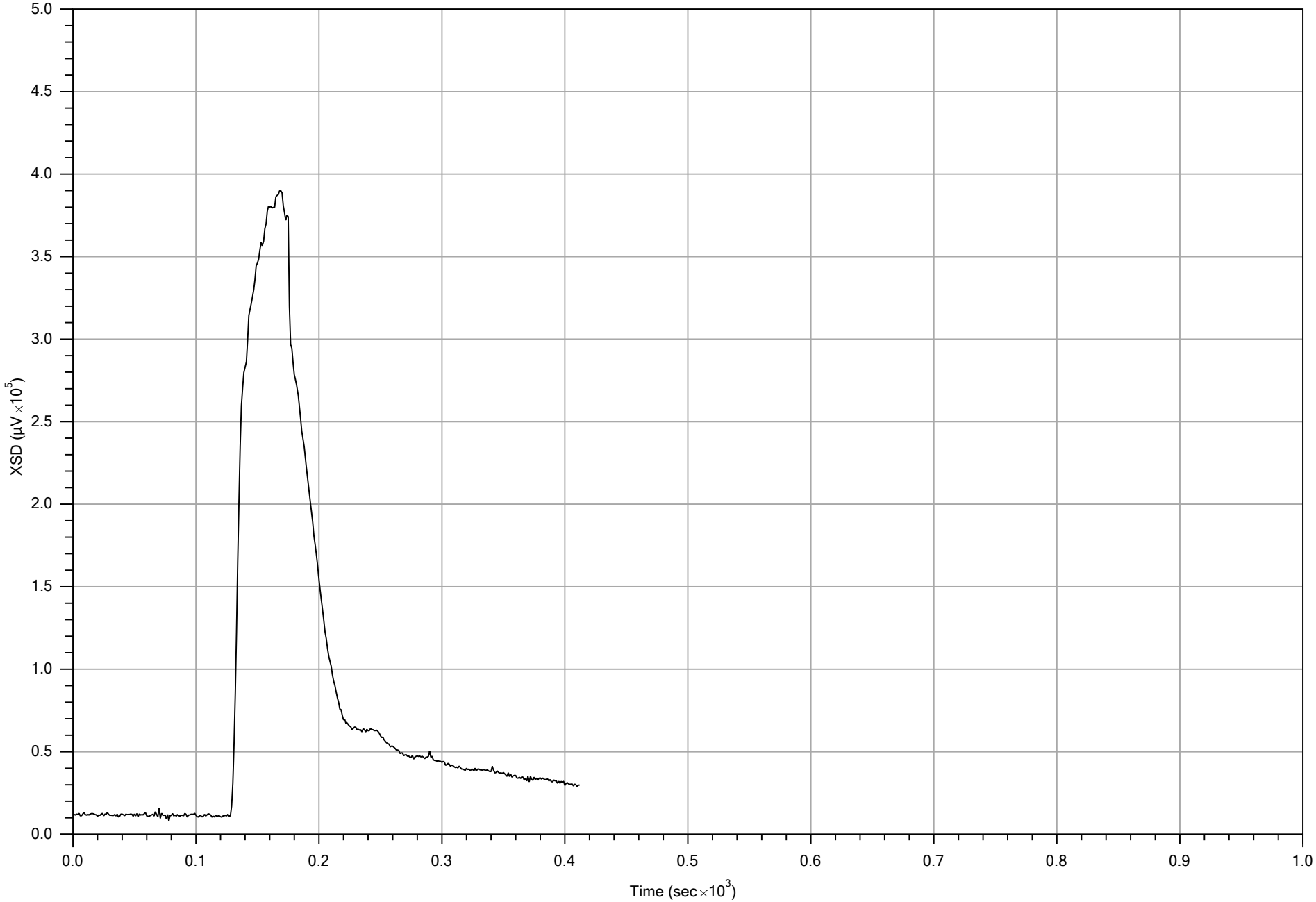
With detectors @ 100,000 µV

(or otherwise noted)



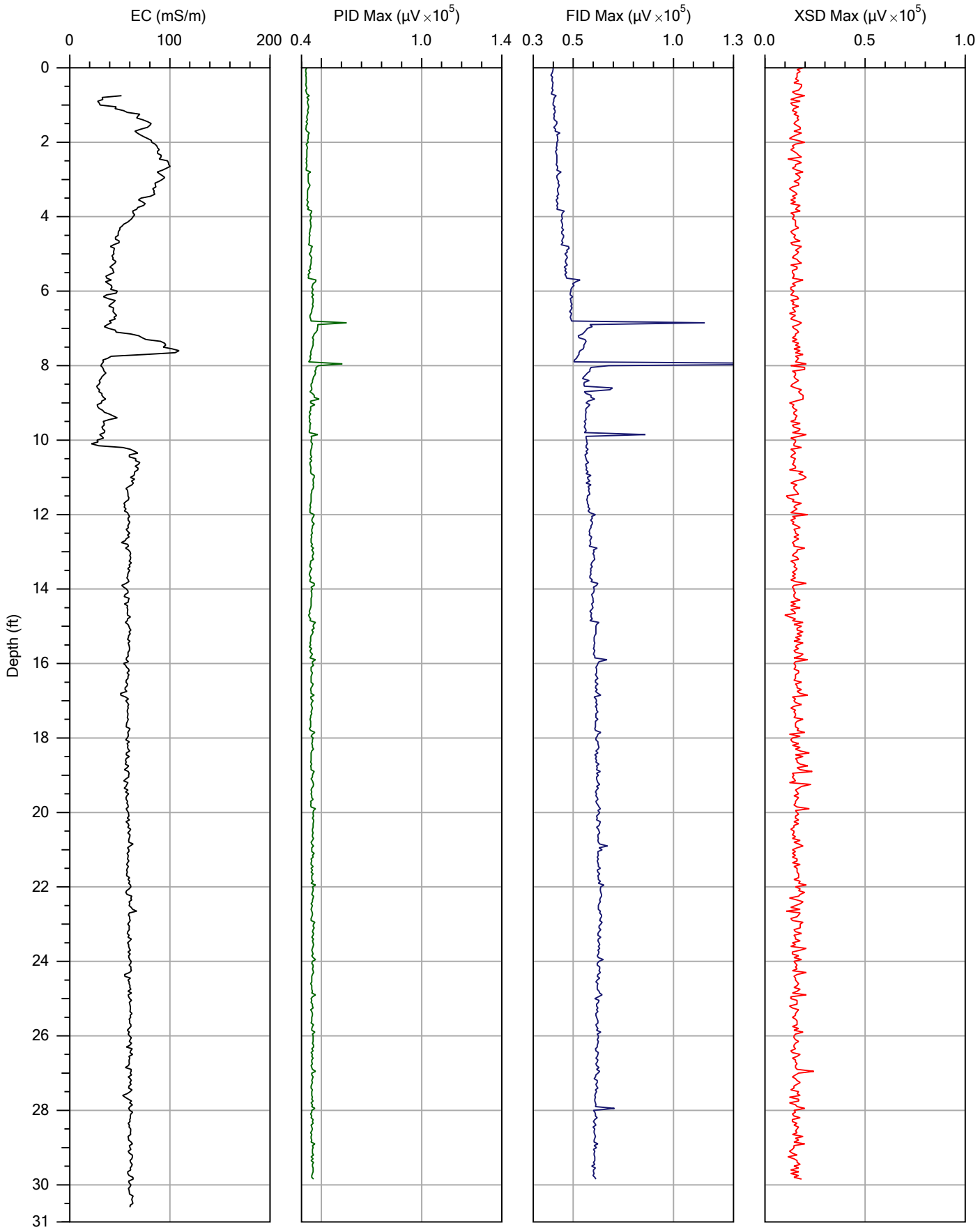
PRE-LOG RESPONSE

File: MW-19 EMULATION.PRE.TIM			Date: 4/16/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 1, 5, 50 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 159459 µV



POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MW-19 EMULATION.POST.TIM	Date: 4/16/2012
Project ID: 047-MNDS-12	Client: Golder	Detector: XSD	Concentration: ? ppm
		Compound: MW-19	Peak Response: 390027 µV



			File: MIP-01.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/16/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	71.4	29.8	FAIL
High	290.0	376.7	29.9	FAIL

Pre-Log EC Troubleshooting Tests

Test	Value	P/F
Instrument Calibration Tests		
10 Ohms:	-3.3 Ohms	FAIL
100 Ohms:	66.1 Ohms	FAIL
1000 Ohms:	771.6 Ohms	FAIL

MIP-01.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-01.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 16 2012 15:55:45

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 16 2012 16:15:54

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.85 ft (9.098 m)
LOG END TIME: Mon Apr 16 2012 16:53:29

LATITUDE: 0.000000000
LONGITUDE: 0.000000000

ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

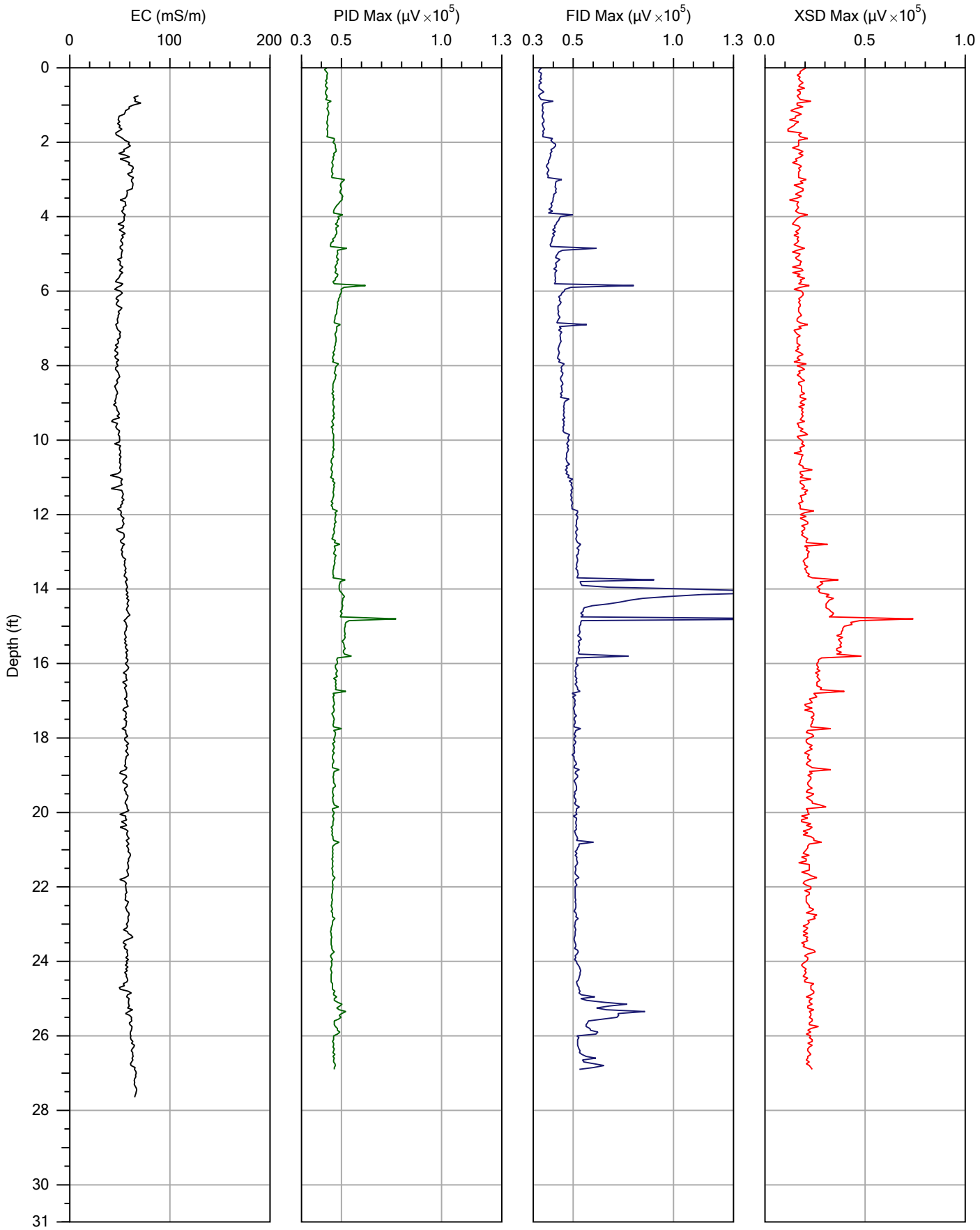
FILENAME: MIP-01.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 16 2012 17:00:37

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.3	4.2	PASS
High	290.0	290.6	0.2	PASS



			File: MIP-02.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/16/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.6	1.1	PASS
High	290.0	291.4	0.5	PASS

MIP-02.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-02.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 16 2012 17:30:49

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 16 2012 17:37:38

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 26.90 ft (8.199 m)
LOG END TIME: Mon Apr 16 2012 18:17:11

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-02.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5 ppm
FLOW: 40 mL/min

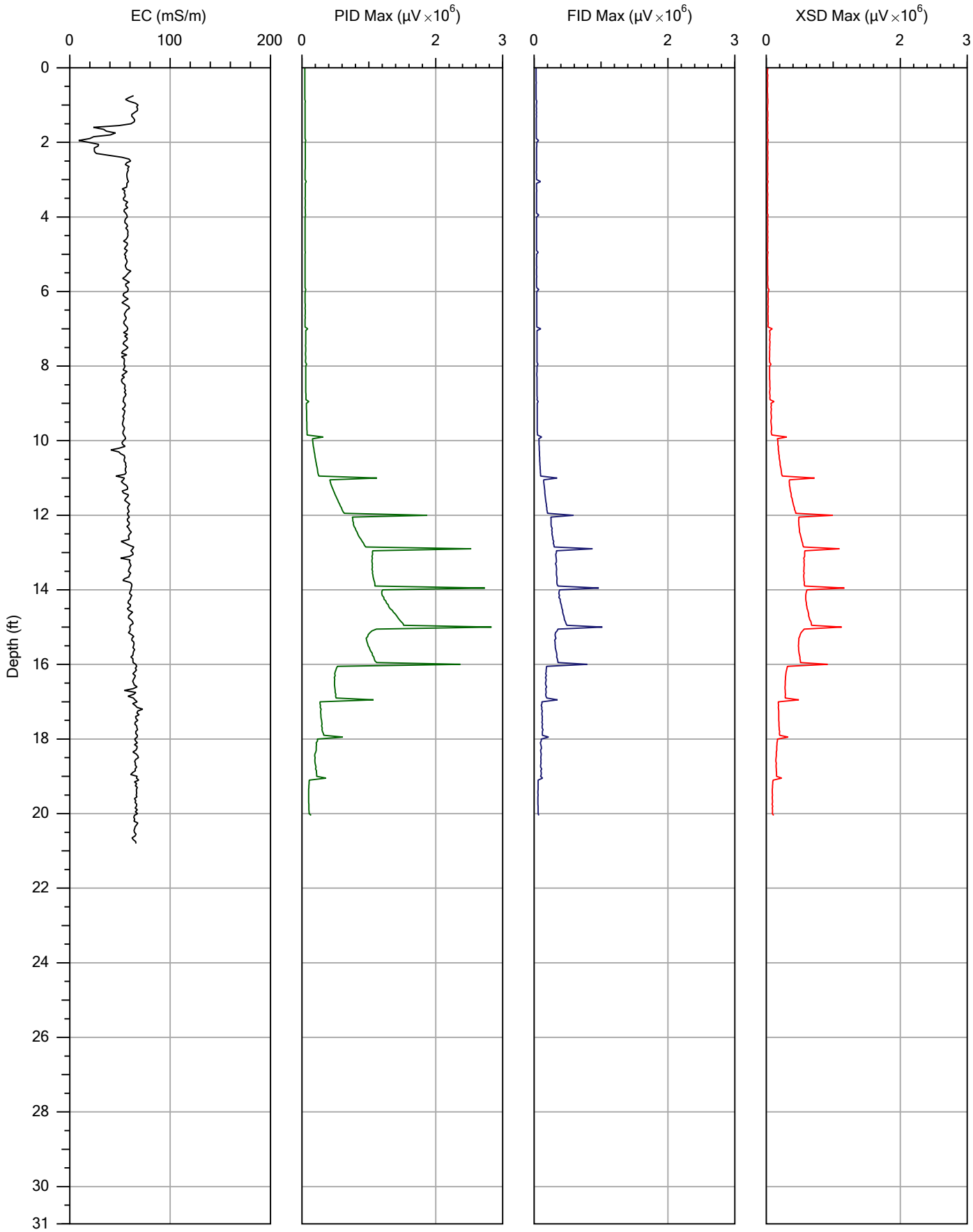
RESPONSE TEST START TIME: Mon Apr 16 2012 18:24:48

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.9	7.0	PASS
High	290.0	318.5	9.8	PASS



			File: MIP-03.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/16/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

EC PRE-LOG TESTS BYPASSED

MIP-03.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 16 2012 18:52:55

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1
12.00	3.658	32	32	10	1
19.00	5.791	4	4	10	1

LOG END DEPTH: 20.05 ft (6.111 m)
LOG END TIME: Mon Apr 16 2012 19:22:12

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-03.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 50 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 16 2012 19:34:57

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

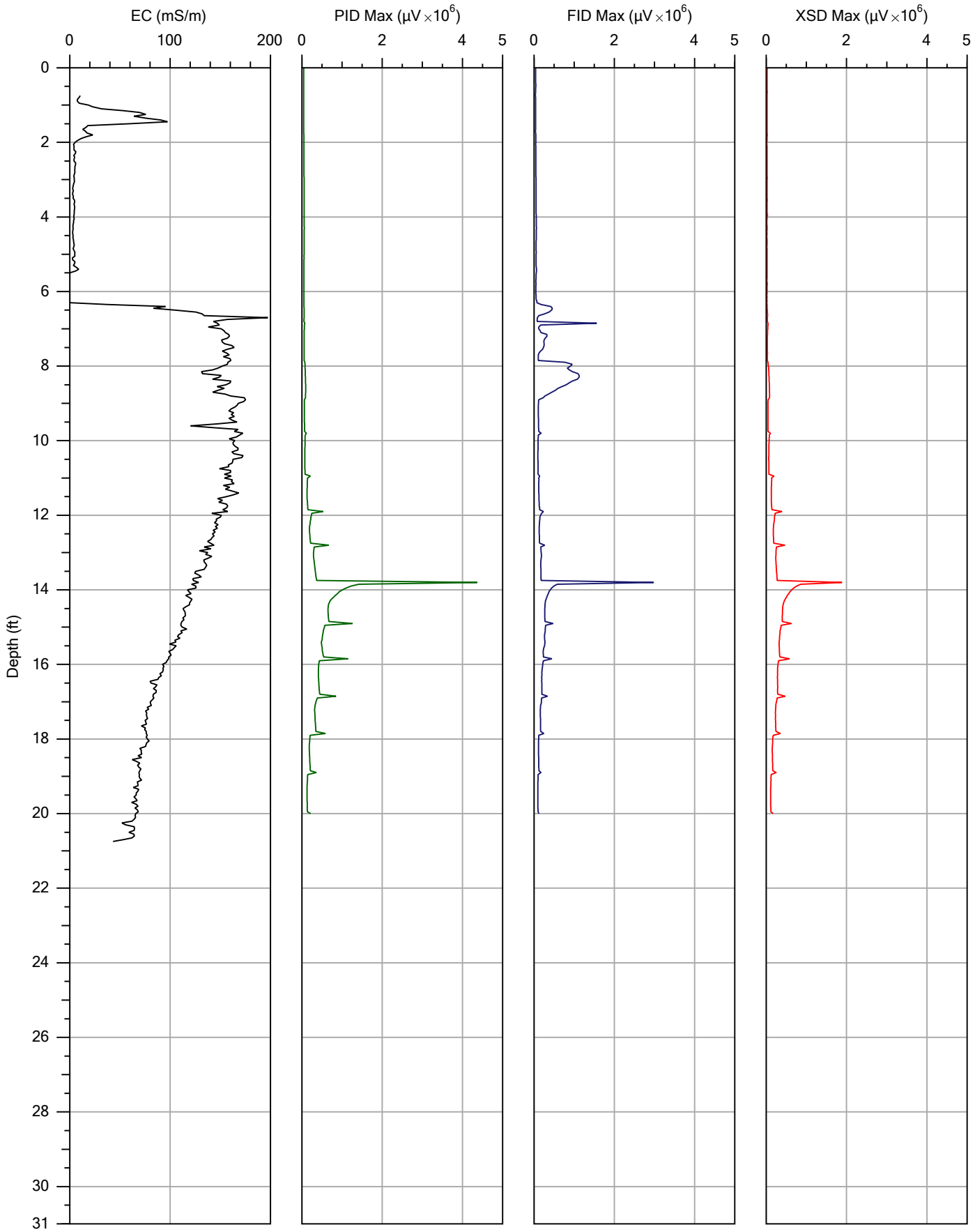
Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F

Low	55.0	62.8	14.2	FAIL
High	290.0	327.2	12.8	FAIL

Post-Log EC Troubleshooting Tests

Test	Value	P/F
Instrument Calibration Tests		
10 Ohms:	2.5 Ohms	FAIL
100 Ohms:	81.2 Ohms	FAIL
1000 Ohms:	877.1 Ohms	FAIL

WARNING: ONE OR MORE EC TESTS FAILED, SO EC DATA FOR THIS LOG MAY BE UNRELIABLE



			File: MIP-04.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/17/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.2	5.9	PASS
High	290.0	298.2	2.8	PASS

MIP-04.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-04.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 17 2012 09:01:06

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 17 2012 09:14:12

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 20.00 ft (6.096 m)
LOG END TIME: Tue Apr 17 2012 09:46:53

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-04.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min

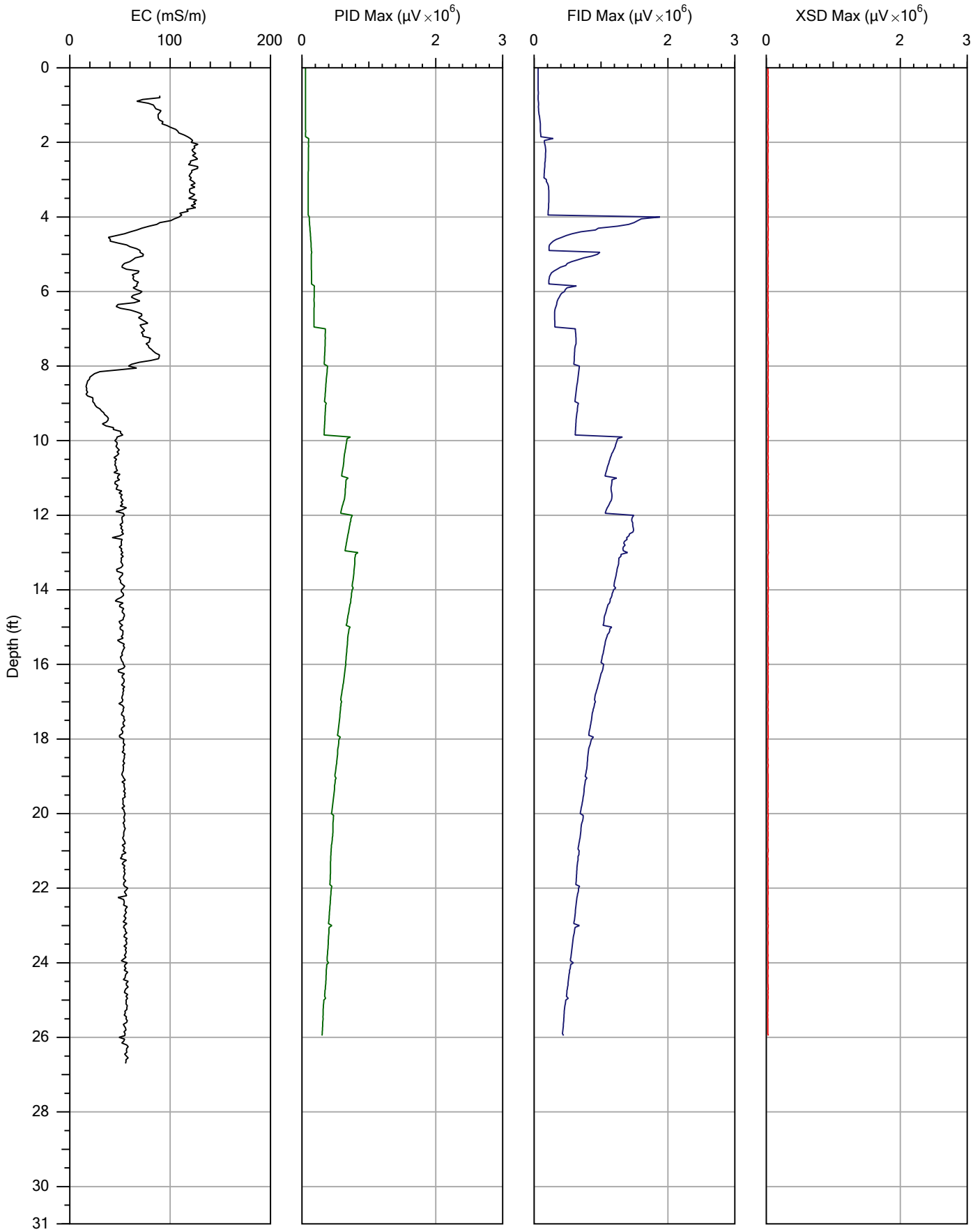
RESPONSE TEST START TIME: Tue Apr 17 2012 10:01:32

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.5	4.5	PASS
High	290.0	297.1	2.5	PASS



			File: MIP-05.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/17/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.2	0.4	PASS
High	290.0	284.9	1.8	PASS

MIP-05.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 17 2012 10:33:14

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 25.95 ft (7.910 m)
LOG END TIME: Tue Apr 17 2012 11:05:37

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-05.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 17 2012 11:28:18

RESPONSE TEST ATTENUATION CHANGES

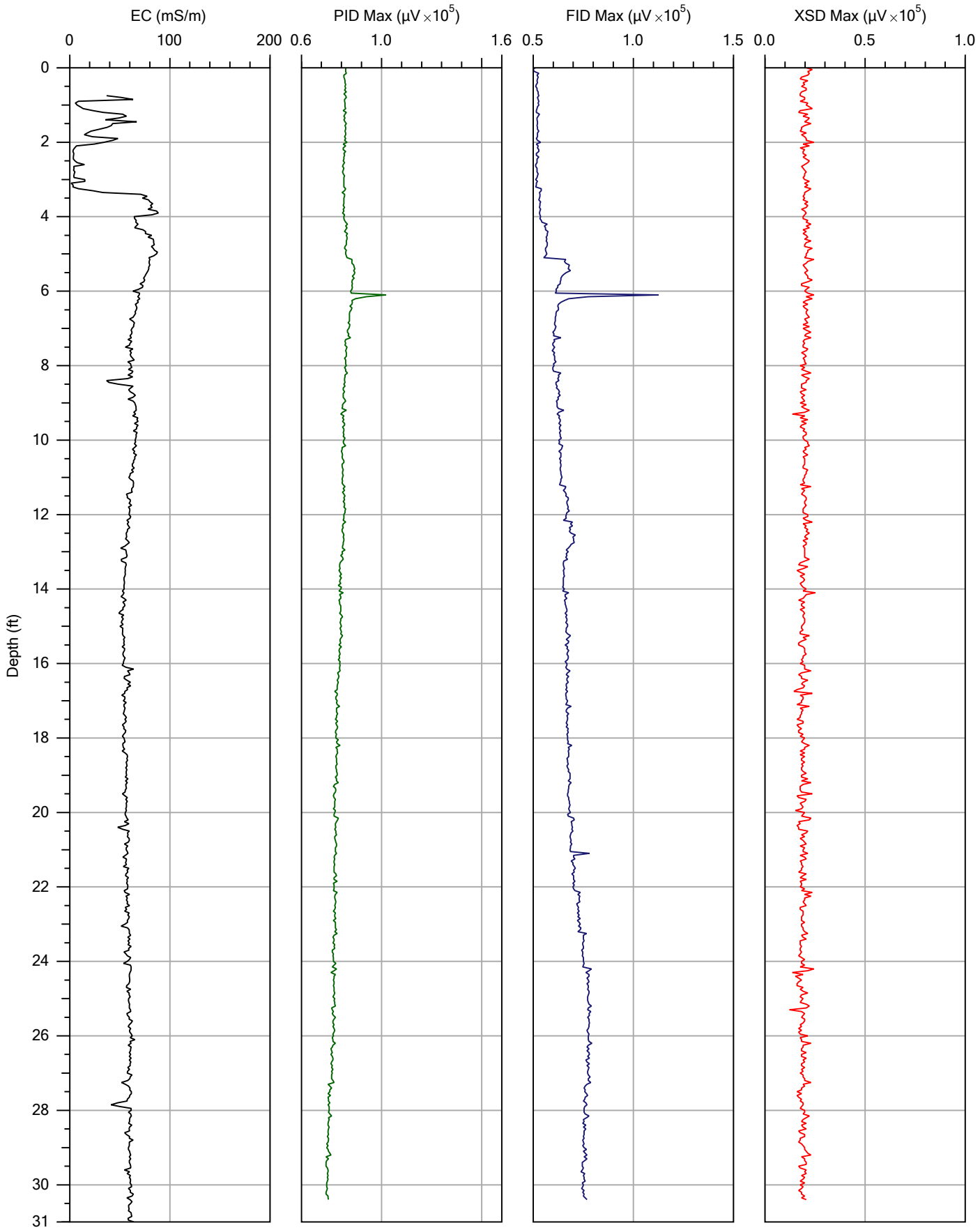
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.1	0.1	PASS
High	290.0	271.1	6.5	PASS

Post-Log EC Troubleshooting Tests

Test	Value	P/F
Instrument Calibration Tests		
10 Ohms:	9.2 Ohms	PASS
100 Ohms:	97.5 Ohms	PASS
1000 Ohms:	992.5 Ohms	PASS



			File: MIP-06.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/17/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.3	0.6	PASS
High	290.0	264.1	8.9	PASS

MIP-06.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-06.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 17 2012 12:00:01

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 17 2012 12:06:14

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.40 ft (9.266 m)
LOG END TIME: Tue Apr 17 2012 12:42:16

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-06.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min

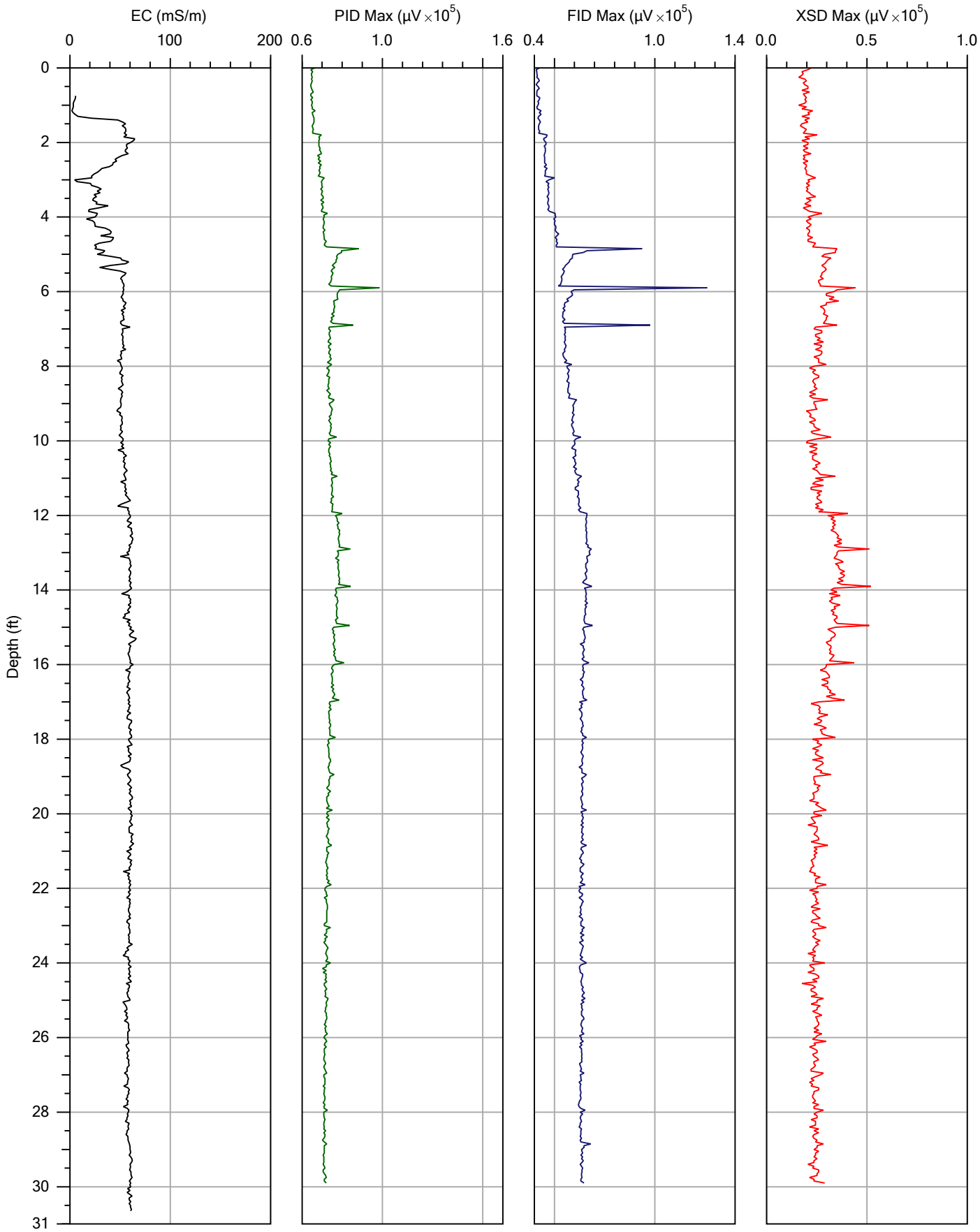
RESPONSE TEST START TIME: Tue Apr 17 2012 12:49:04

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	54.8	0.4	PASS
High	290.0	272.7	6.0	PASS



			File: MIP-07.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/17/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.3	2.5	PASS
High	290.0	286.9	1.1	PASS

MIP-07.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 17 2012 13:20:59

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.90 ft (9.114 m)
LOG END TIME: Tue Apr 17 2012 14:17:30

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

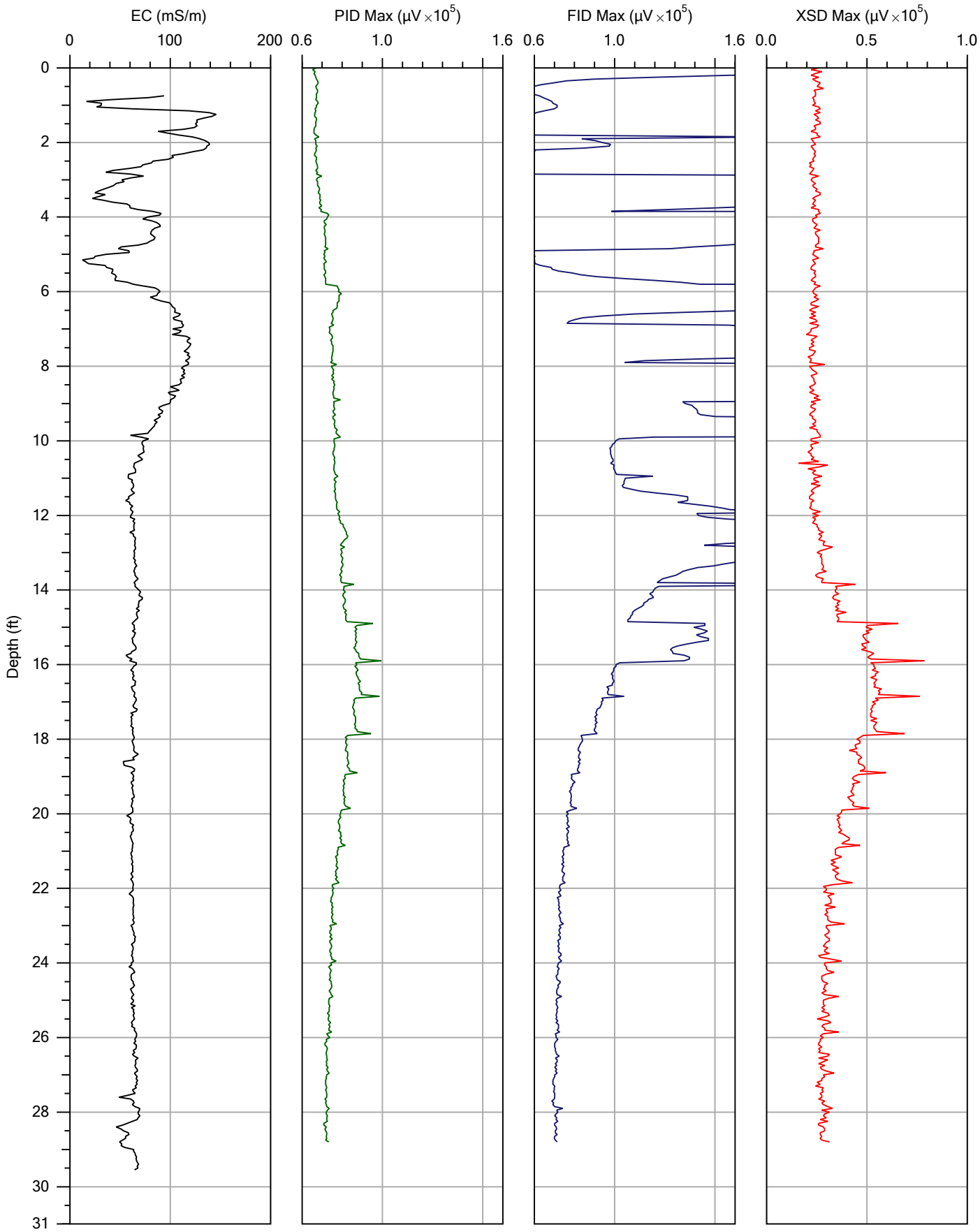
FILENAME: MIP-07.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 17 2012 14:24:34

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.6	1.0	PASS
High	290.0	291.2	0.4	PASS



			File: MIP-08.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/17/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	54.2	1.5	PASS
High	290.0	268.2	7.5	PASS

MIP-08.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-08.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 17 2012 14:34:56

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 17 2012 14:40:42

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 28.80 ft (8.778 m)
LOG END TIME: Tue Apr 17 2012 15:14:07

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-08.post.tim
COMPOUND: TCE
CONCENTRATION: 5, 25 ppm
FLOW: 40 mL/min

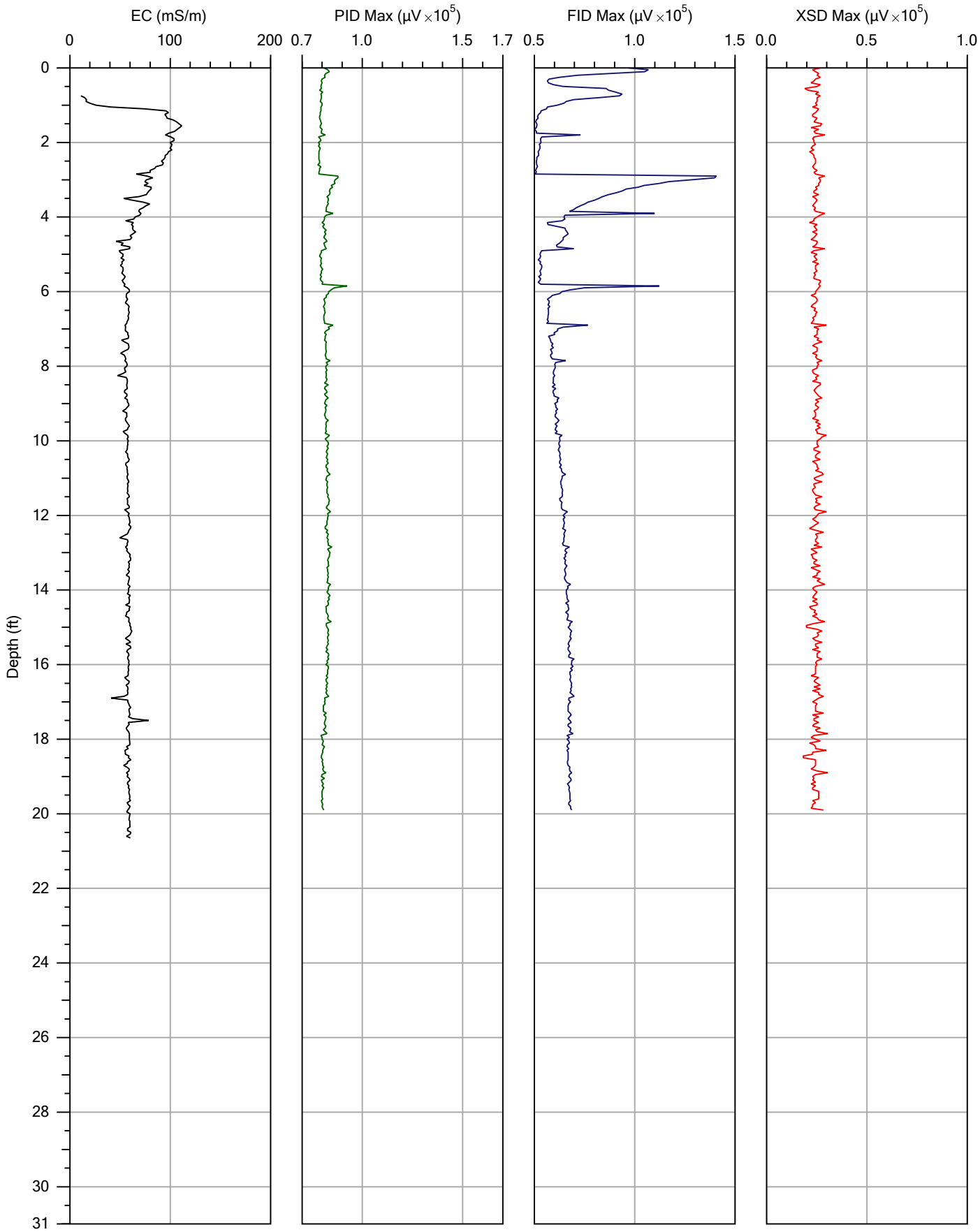
RESPONSE TEST START TIME: Tue Apr 17 2012 15:23:03

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.8	8.8	PASS
High	290.0	305.4	5.3	PASS



			File: MIP-09.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/17/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	60.1	9.3	PASS
High	290.0	311.7	7.5	PASS

MIP-09.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-09.pre.tim
RESPONSE TEST START TIME: Tue Apr 17 2012 15:38:24

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	1	1	1	1
9	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 17 2012 15:39:18

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 19.90 ft (6.066 m)
LOG END TIME: Tue Apr 17 2012 16:04:20

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

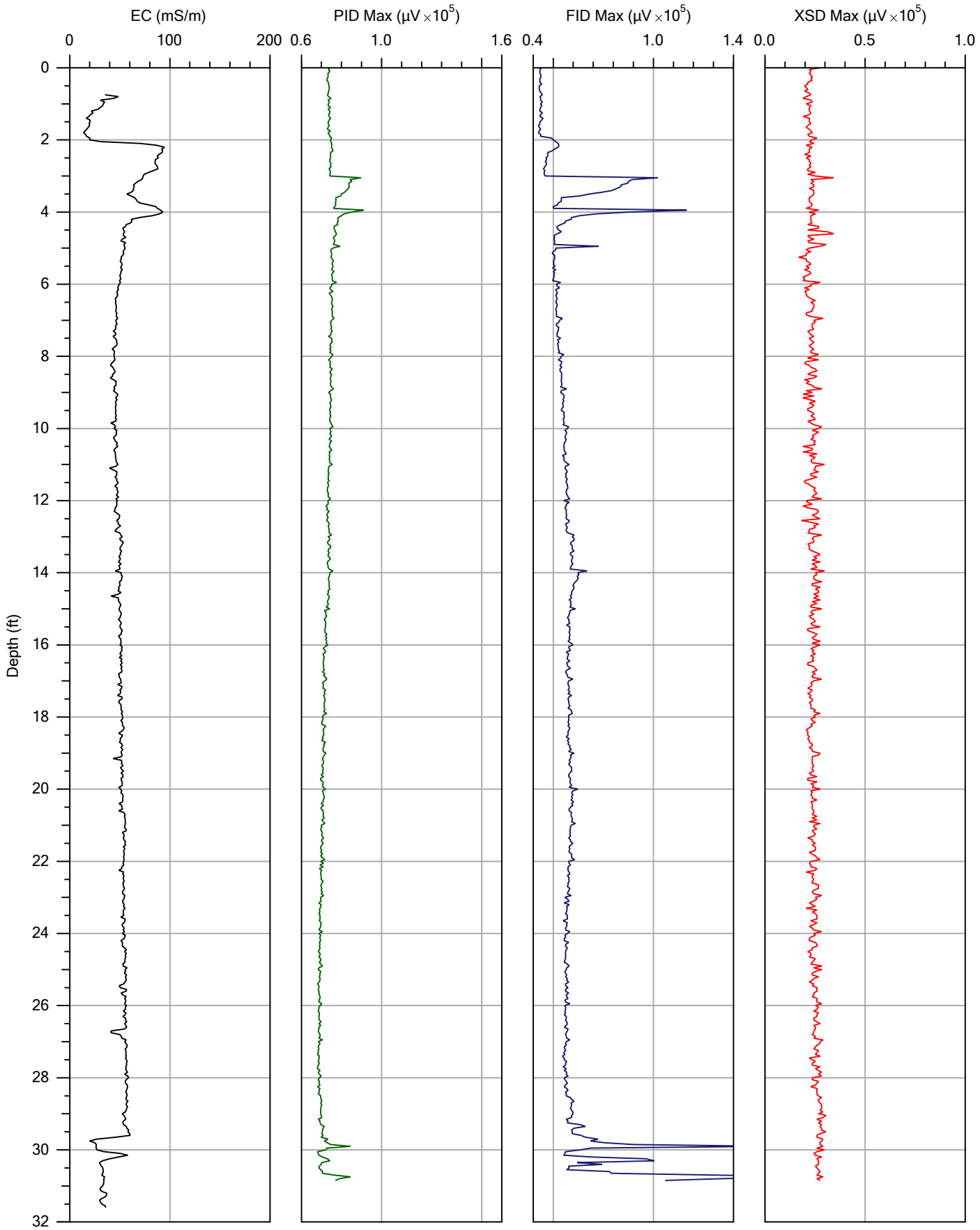
FILENAME: MIP-09.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 17 2012 16:11:45

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	54.1	1.6	PASS
High	290.0	280.6	3.2	PASS



			File: MIP-10.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/17/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	53.5	2.7	PASS
High	290.0	280.4	3.3	PASS

MIP-10.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 17 2012 16:30:54

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.85 ft (9.403 m)
LOG END TIME: Tue Apr 17 2012 17:18:40

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-10.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 17 2012 17:28:20

RESPONSE TEST ATTENUATION CHANGES

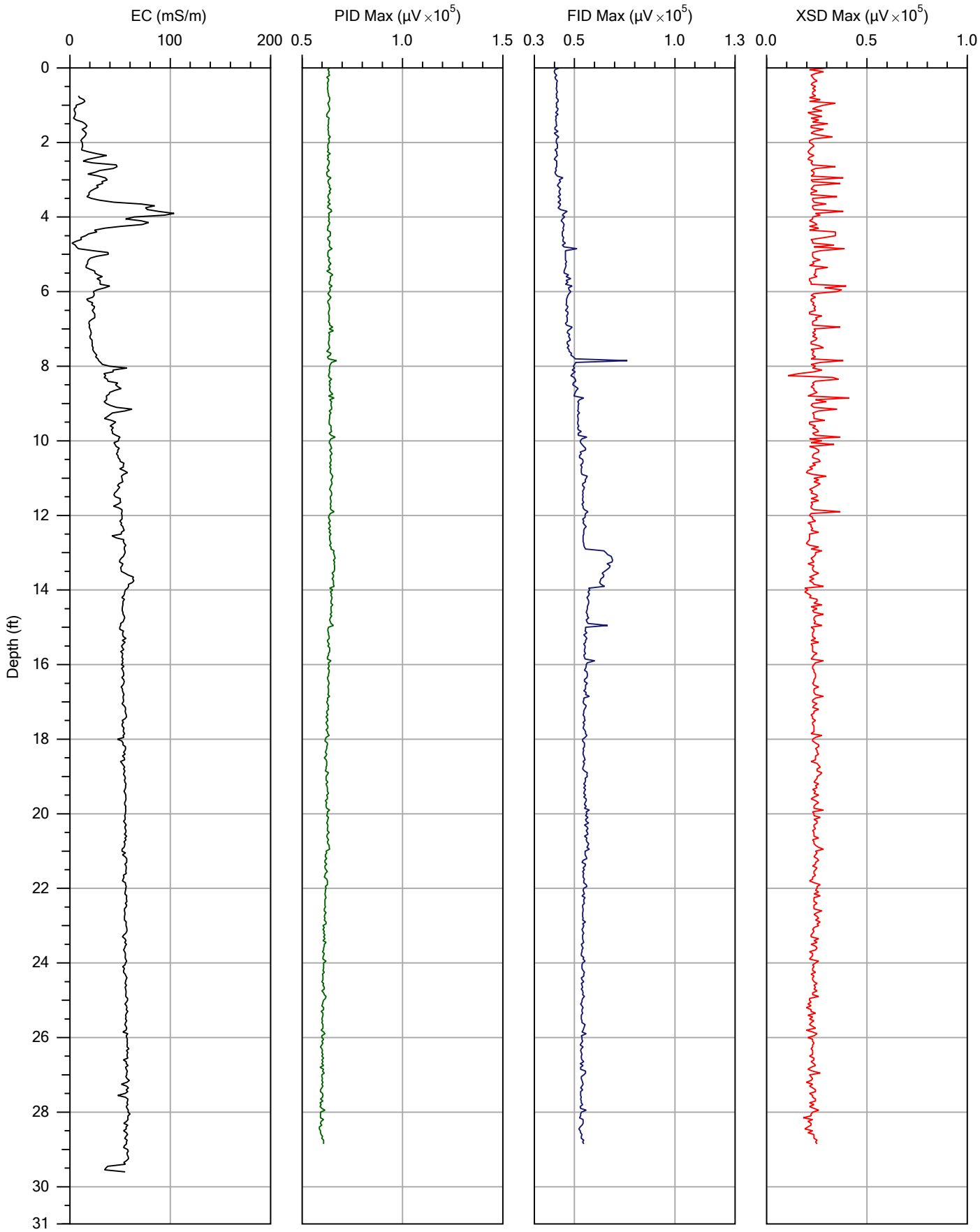
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.3	0.6	PASS
High	290.0	285.2	1.6	PASS

********** USER NOTES **********

refusal @ 31 feet. Rock?



			File: MIP-11.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/17/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.2	0.4	PASS
High	290.0	285.4	1.6	PASS

MIP-11.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 17 2012 17:40:00

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 28.85 ft (8.793 m)
LOG END TIME: Tue Apr 17 2012 18:17:27

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-11.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 17 2012 18:25:13

RESPONSE TEST ATTENUATION CHANGES

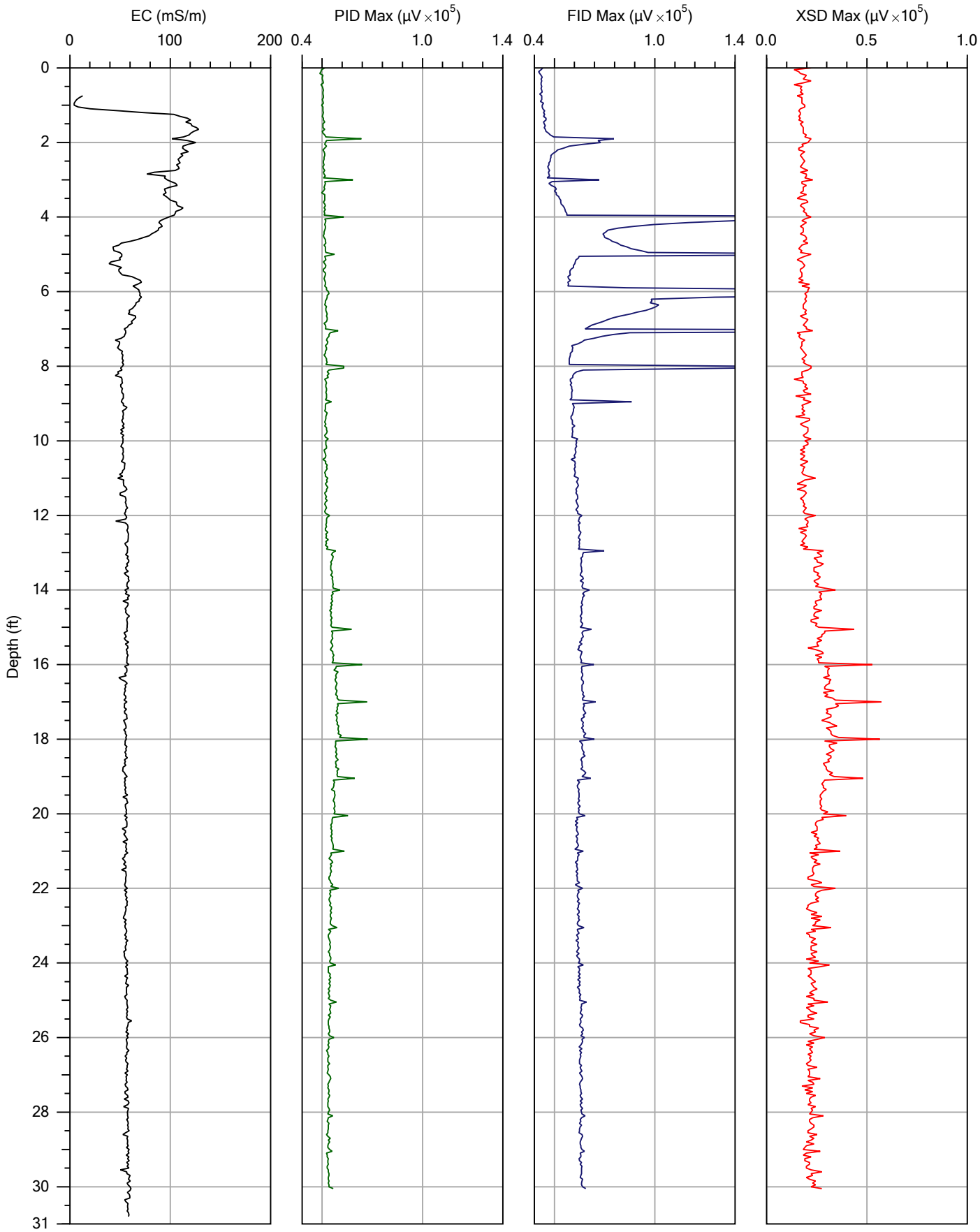
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.3	0.5	PASS
High	290.0	286.3	1.3	PASS

********** USER NOTES **********

Refusal @ 28.85'



			File: MIP-12.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/18/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	51.3	6.8	PASS
High	290.0	285.9	1.4	PASS

MIP-12.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-12.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Apr 18 2012 07:49:45

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Wed Apr 18 2012 08:01:14

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.05 ft (9.159 m)
LOG END TIME: Wed Apr 18 2012 08:44:11

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-12.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5 ppm
FLOW: 40 mL/min

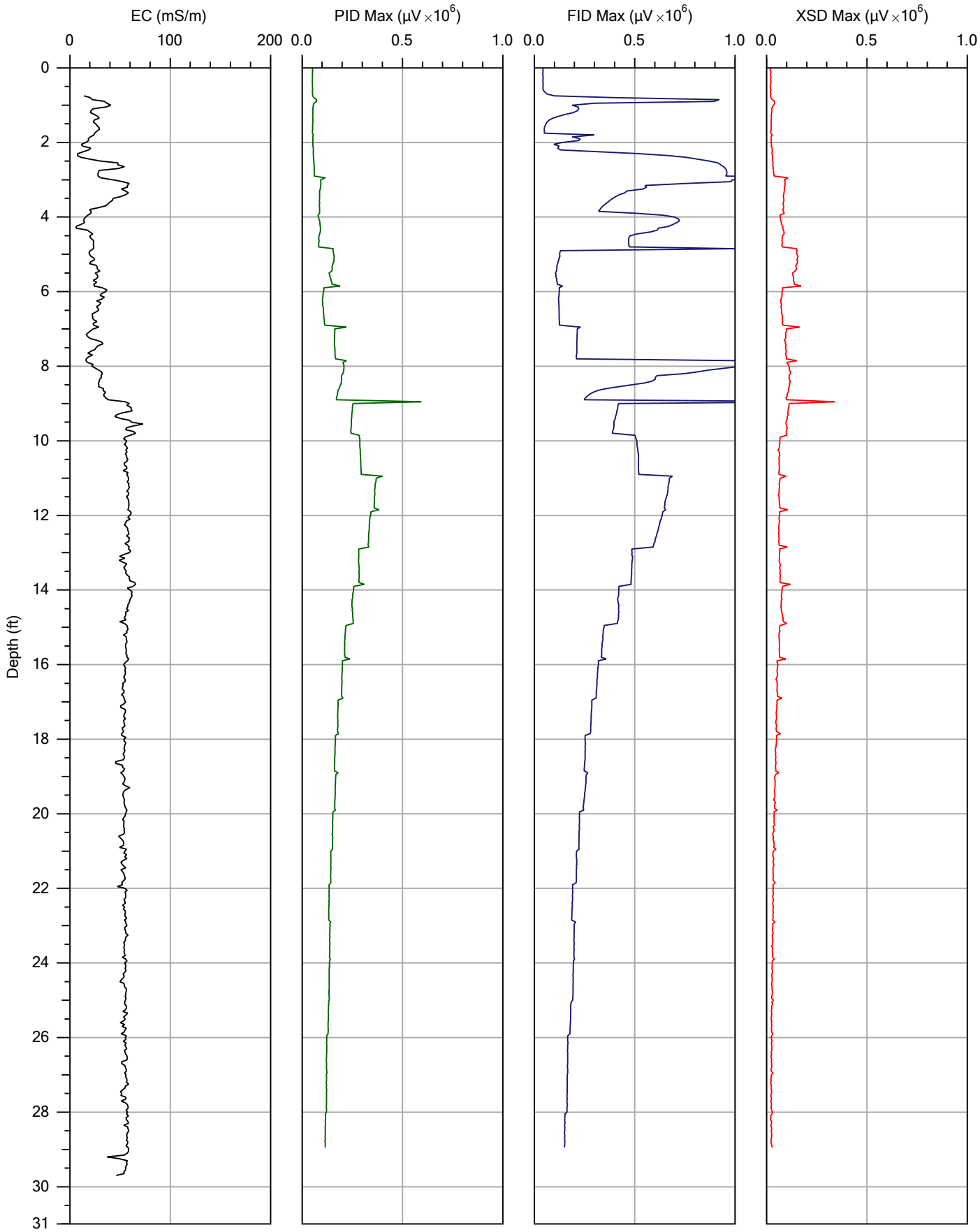
RESPONSE TEST START TIME: Wed Apr 18 2012 08:56:31

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	54.7	0.6	PASS
High	290.0	285.2	1.7	PASS



			File: MIP-13.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/18/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	54.6	0.7	PASS
High	290.0	277.9	4.2	PASS

MIP-13.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Wed Apr 18 2012 09:07:21

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 28.95 ft (8.824 m)
LOG END TIME: Wed Apr 18 2012 09:55:55

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

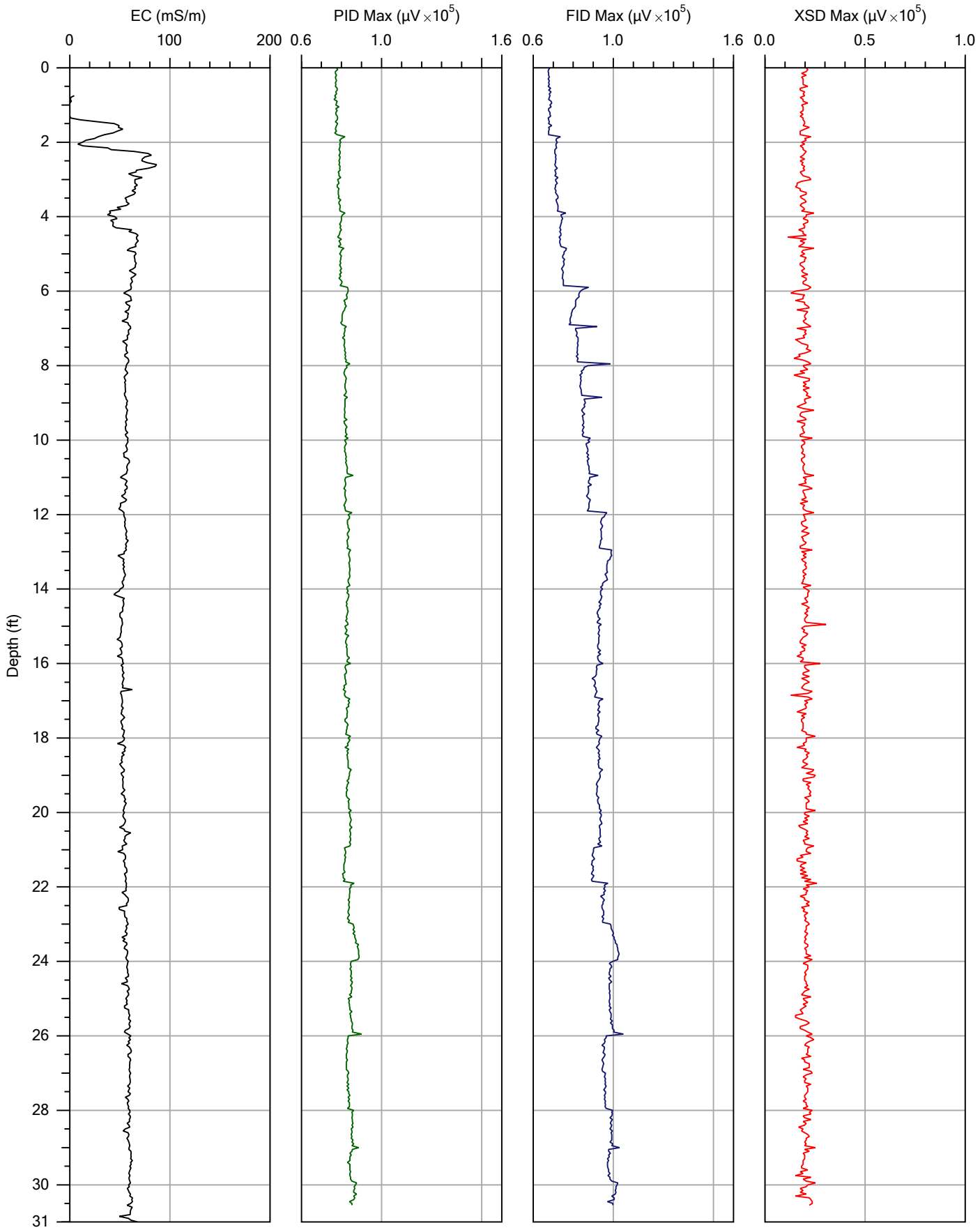
FILENAME: MIP-13.post.tim
COMPOUND: TCE
CONCENTRATION: 5, 50 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Apr 18 2012 10:15:41

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.5	0.8	PASS
High	290.0	306.4	5.6	PASS



			File: MIP-14.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/18/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.2	2.2	PASS
High	290.0	276.0	4.8	PASS

MIP-14.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Wed Apr 18 2012 10:37:07

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.55 ft (9.312 m)
LOG END TIME: Wed Apr 18 2012 11:21:56

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

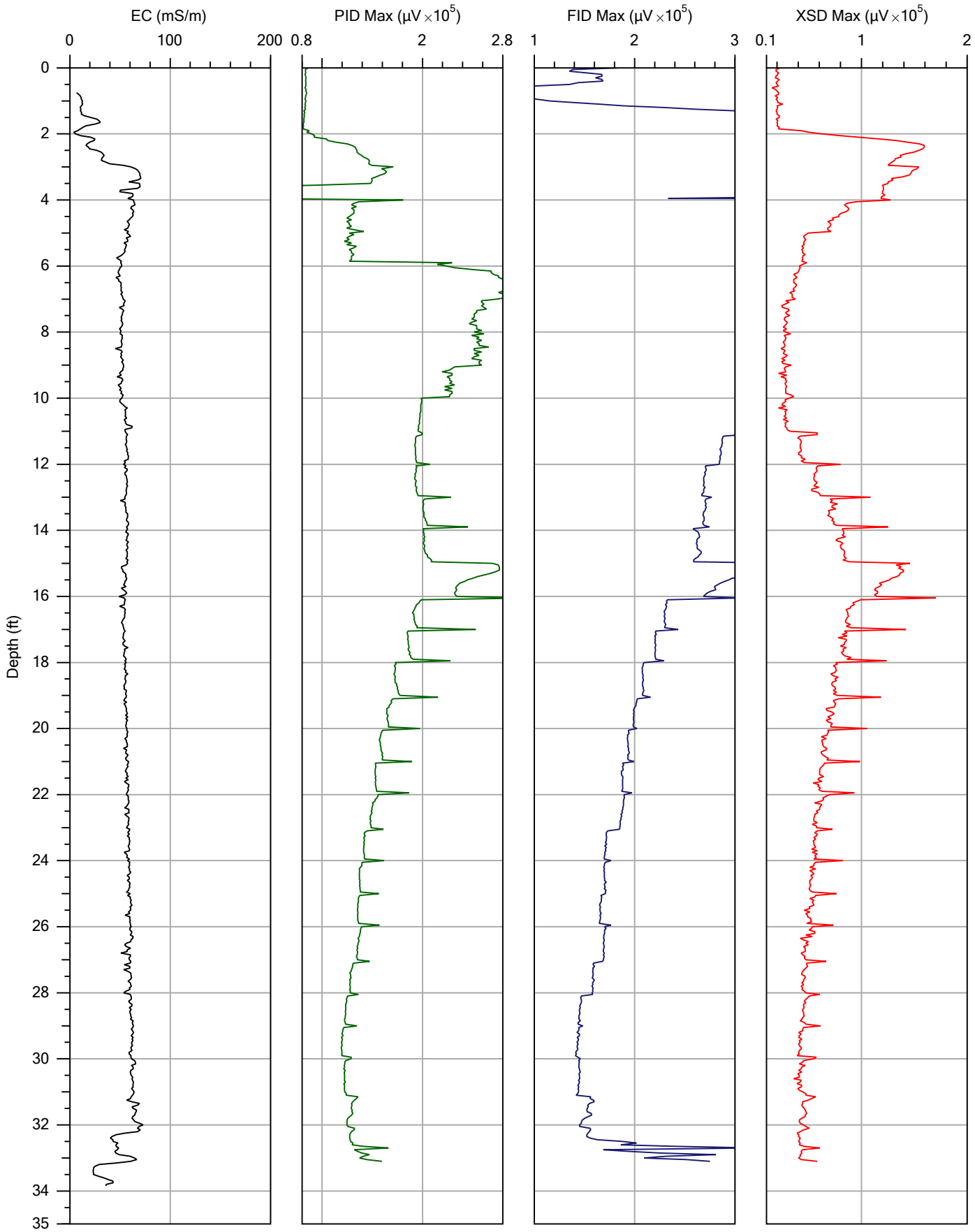
FILENAME: MIP-14.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Apr 18 2012 11:29:30

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	51.5	6.4	PASS
High	290.0	291.7	0.6	PASS



			File: MIP-15.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/18/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.8	3.2	PASS
High	290.0	276.7	4.6	PASS

MIP-15.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Wed Apr 18 2012 11:40:46

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1
4.00	1.219	32	32	10	1
9.95	3.033	4	4	10	1

LOG END DEPTH: 33.10 ft (10.089 m)
LOG END TIME: Wed Apr 18 2012 12:28:55

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

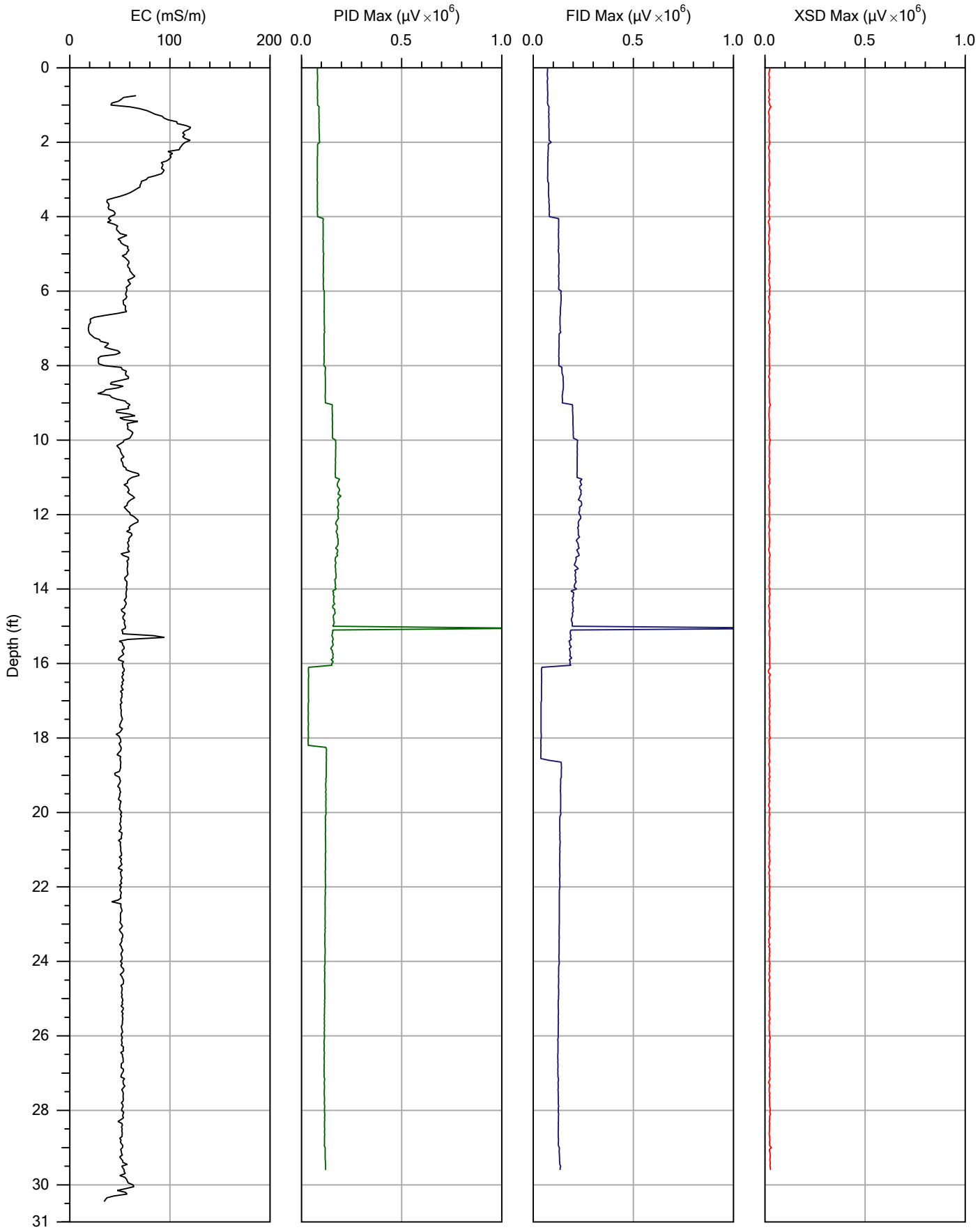
FILENAME: MIP-15.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Apr 18 2012 12:44:17

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.3	0.5	PASS
High	290.0	284.1	2.0	PASS



			File: MIP-16.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/18/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.9	1.7	PASS
High	290.0	286.8	1.1	PASS

MIP-16.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-16.pre.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Apr 18 2012 13:57:43

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Wed Apr 18 2012 14:03:21

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1
11.05	3.368	32	32	10	1
16.05	4.892	4	4	10	1
19.05	5.806	4	4	10	1

LOG END DEPTH: 29.70 ft (9.053 m)
LOG END TIME: Wed Apr 18 2012 14:35:27

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-16.post.tim

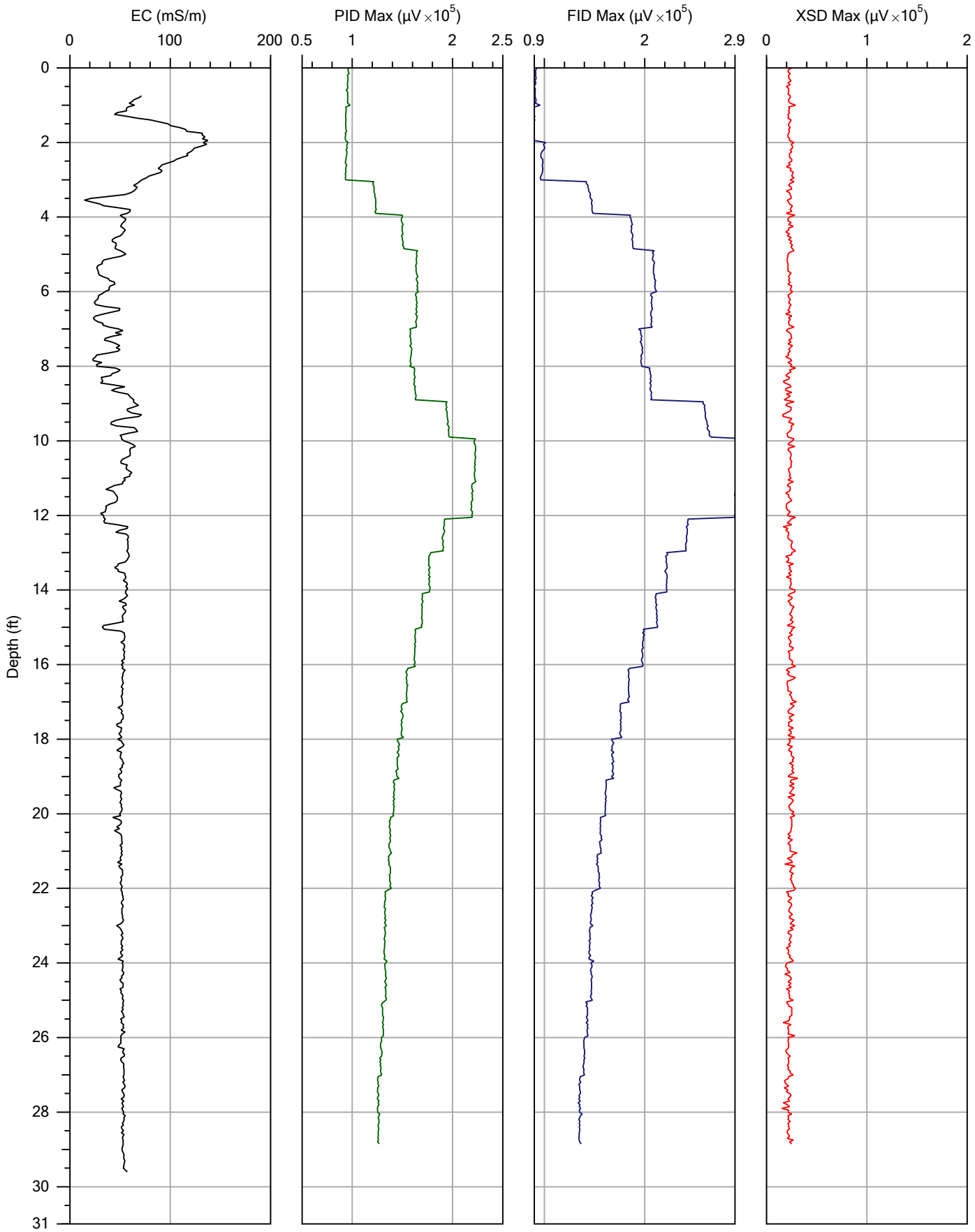
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 50 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Apr 18 2012 14:48:21

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.6	1.1	PASS
High	290.0	286.3	1.3	PASS



			File: MIP-16A.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/18/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.9	1.7	PASS
High	290.0	291.0	0.3	PASS

MIP-16A.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Wed Apr 18 2012 16:51:49

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 28.85 ft (8.793 m)
LOG END TIME: Wed Apr 18 2012 17:28:11

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-16A.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Apr 18 2012 17:37:58

RESPONSE TEST ATTENUATION CHANGES

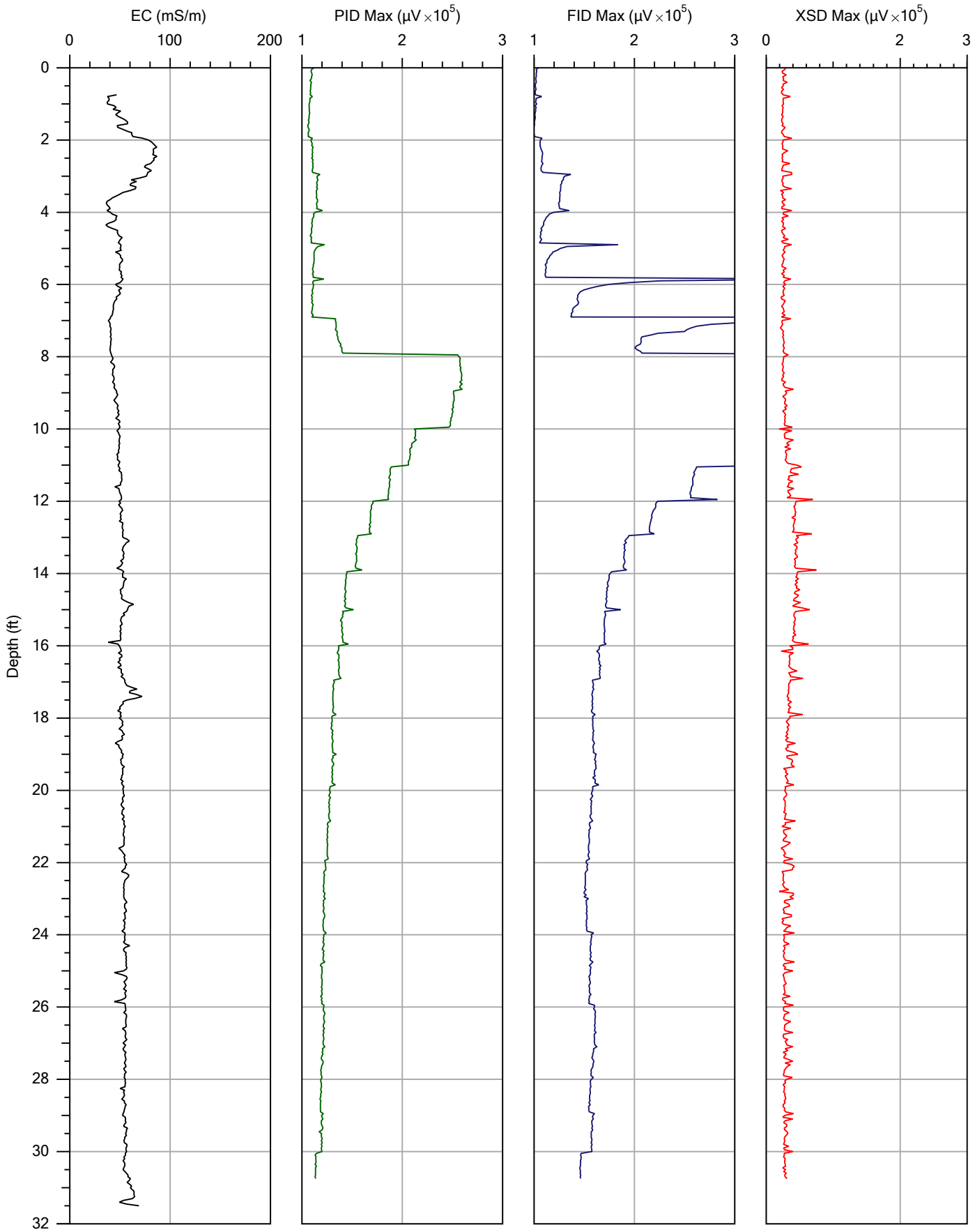
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.5	2.8	PASS
High	290.0	291.6	0.6	PASS

********** USER NOTES **********

This is a re-drill (new hole) since the membrane for original log (MIP-16) change performance as observed from pre to post log QC of MIP-16. the post log response was about 10% of the pre-log.



			File: MIP-17.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/18/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.6	1.1	PASS
High	290.0	289.9	0.0	PASS

MIP-17.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-17.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Apr 18 2012 15:27:32

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Wed Apr 18 2012 15:39:45

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.75 ft (9.373 m)
LOG END TIME: Wed Apr 18 2012 16:19:02

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-17.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min

RESPONSE TEST START TIME: Wed Apr 18 2012 16:29:46

RESPONSE TEST ATTENUATION CHANGES

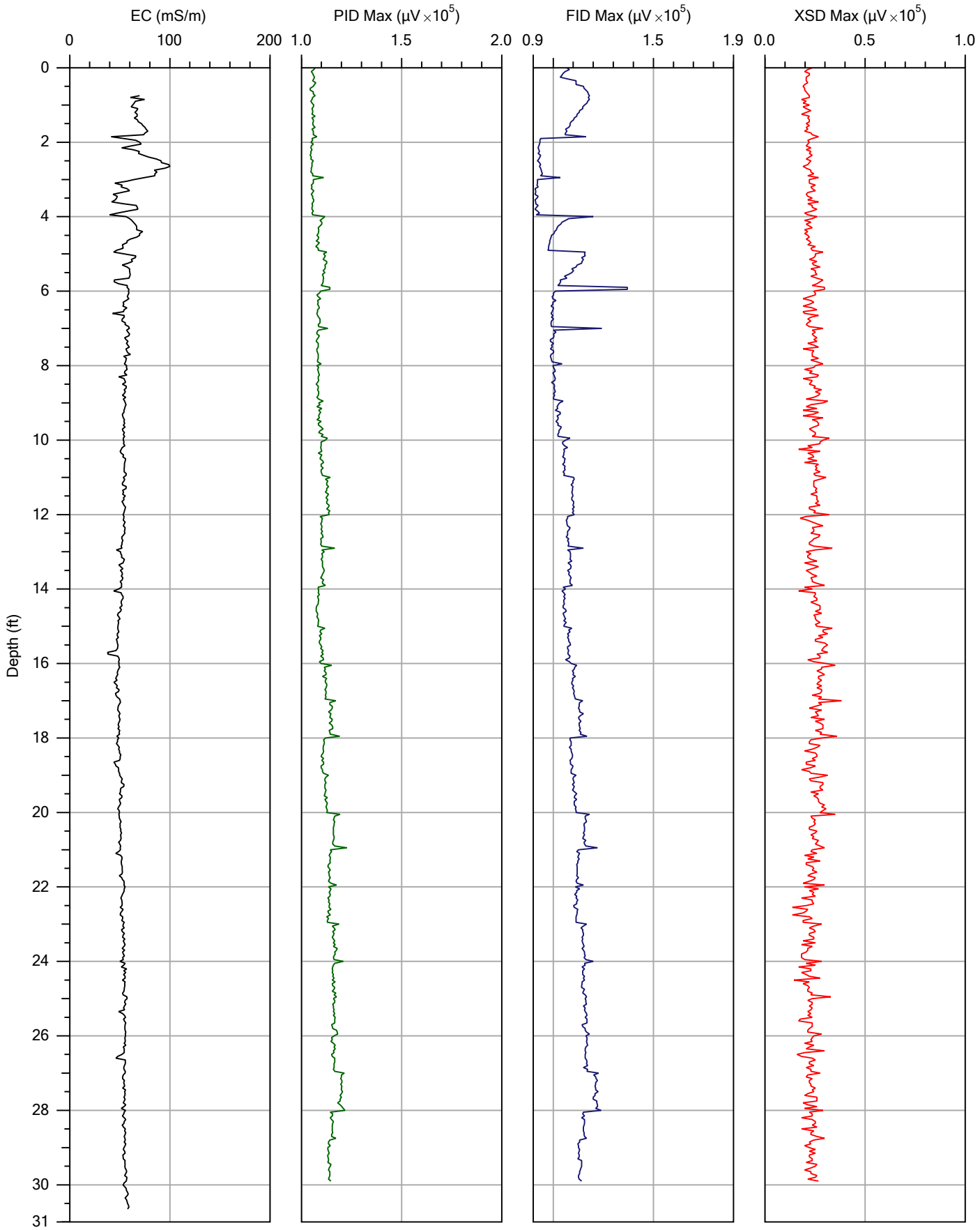
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.5	2.7	PASS
High	290.0	291.6	0.5	PASS

********** USER NOTES **********

resusal @ 31 feet
Prior to MIP-17 new membrane was installed (face # R125)



			File: MIP-18.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/18/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.1	2.1	PASS
High	290.0	291.8	0.6	PASS

MIP-18.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Wed Apr 18 2012 17:55:20

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.90 ft (9.114 m)
LOG END TIME: Wed Apr 18 2012 18:33:58

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

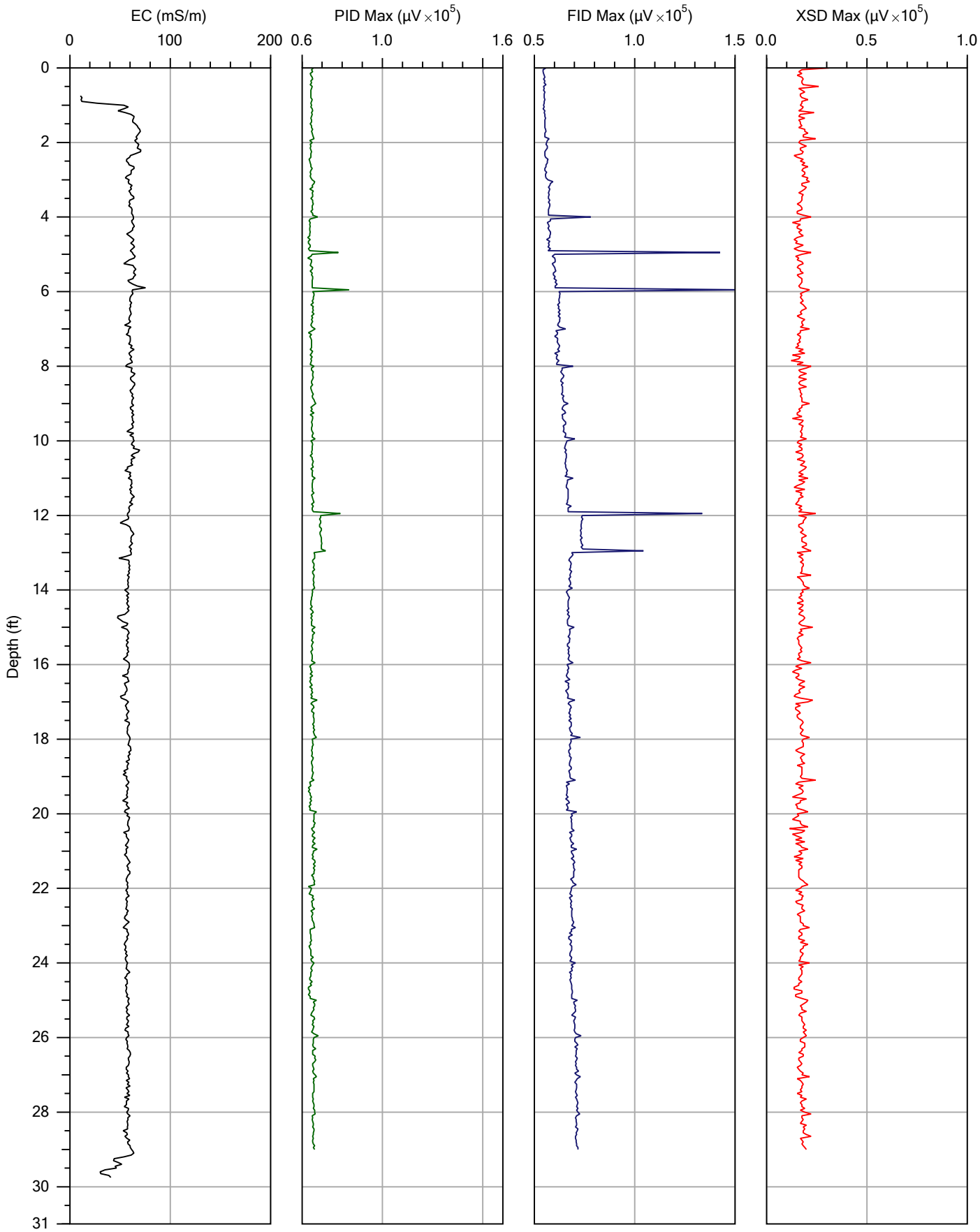
FILENAME: MIP-18.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Apr 18 2012 18:43:31

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	54.8	0.4	PASS
High	290.0	292.6	0.9	PASS



			File: MIP-19.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/19/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.8	5.1	PASS
High	290.0	300.8	3.7	PASS

MIP-19.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-19.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Apr 19 2012 08:38:29

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Thu Apr 19 2012 08:52:14

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.00 ft (8.839 m)
LOG END TIME: Thu Apr 19 2012 09:24:03

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-19.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min

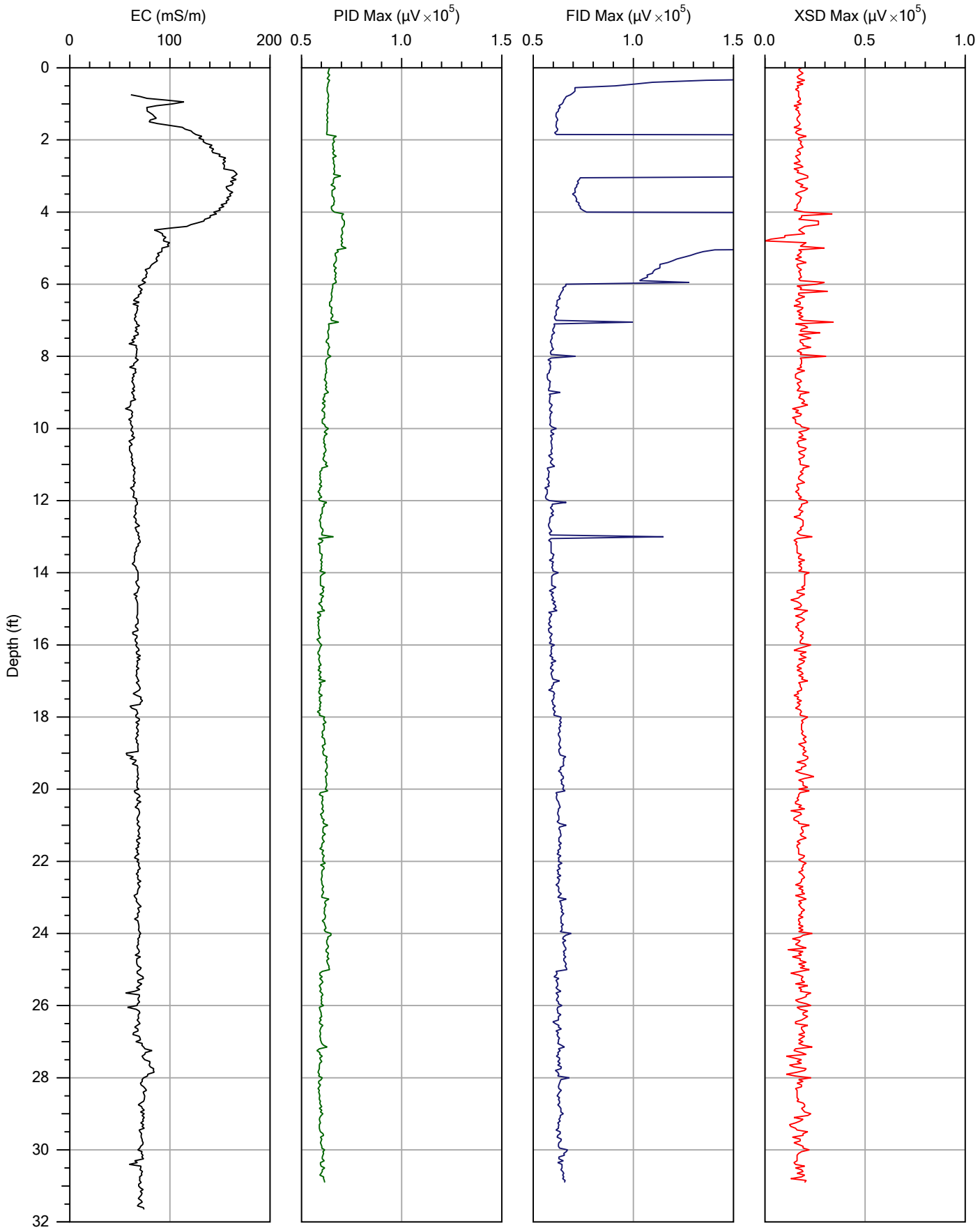
RESPONSE TEST START TIME: Thu Apr 19 2012 09:31:44

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.5	6.3	PASS
High	290.0	301.0	3.8	PASS



			File: MIP-20.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/19/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.0	5.4	PASS
High	290.0	299.0	3.1	PASS

MIP-20.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Thu Apr 19 2012 09:44:53

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.90 ft (9.418 m)
LOG END TIME: Thu Apr 19 2012 10:23:57

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-20.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Apr 19 2012 10:34:53

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

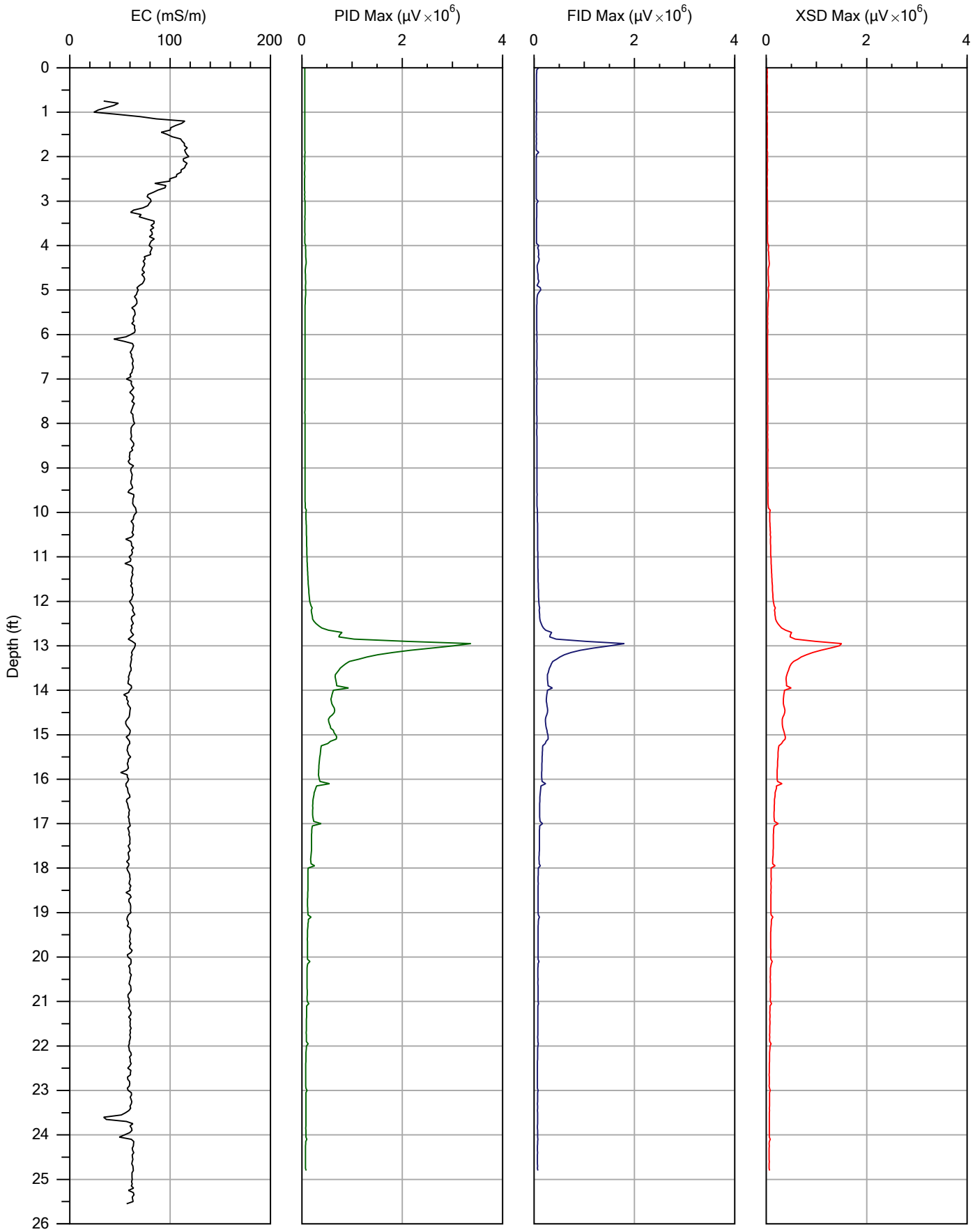
Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.2	2.1	PASS
High	290.0	290.6	0.2	PASS

Post-Log EC Troubleshooting Tests

Test	Value	P/F
Instrument Calibration Tests		
10 Ohms:	8.1 Ohms	FAIL
100 Ohms:	95.3 Ohms	PASS
1000 Ohms:	961.6 Ohms	PASS

WARNING: ONE OR MORE EC TESTS FAILED, SO EC DATA FOR THIS LOG MAY BE UNRELIABLE



			File: MIP-21.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/19/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.3	2.4	PASS
High	290.0	293.2	1.1	PASS

MIP-21.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Thu Apr 19 2012 10:48:55

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 24.80 ft (7.559 m)
LOG END TIME: Thu Apr 19 2012 11:25:41

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-21.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Apr 19 2012 11:34:20

RESPONSE TEST ATTENUATION CHANGES

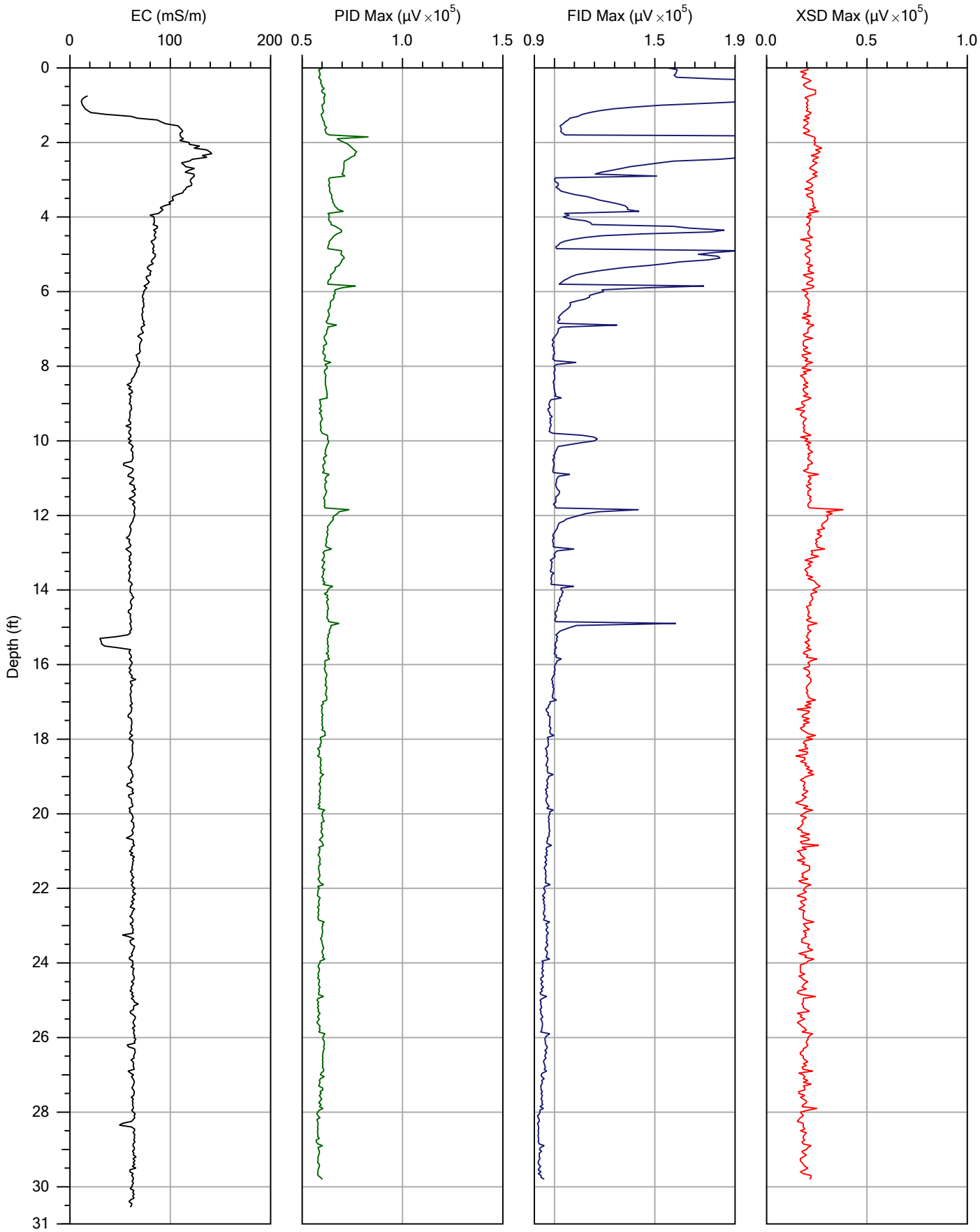
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.4	6.3	PASS
High	290.0	300.5	3.6	PASS

********** USER NOTES **********

change membrane? Post-log 5 ppm response test is low.



			File: MIP-22.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/19/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.6	4.7	PASS
High	290.0	289.4	0.2	PASS

MIP-22.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-22.pre.tim
COMPOUND: TCE
CONCENTRATION: 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Apr 19 2012 12:26:33

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Thu Apr 19 2012 12:34:44

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.80 ft (9.083 m)
LOG END TIME: Thu Apr 19 2012 13:07:45

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-22.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min

RESPONSE TEST START TIME: Thu Apr 19 2012 13:20:53

RESPONSE TEST ATTENUATION CHANGES

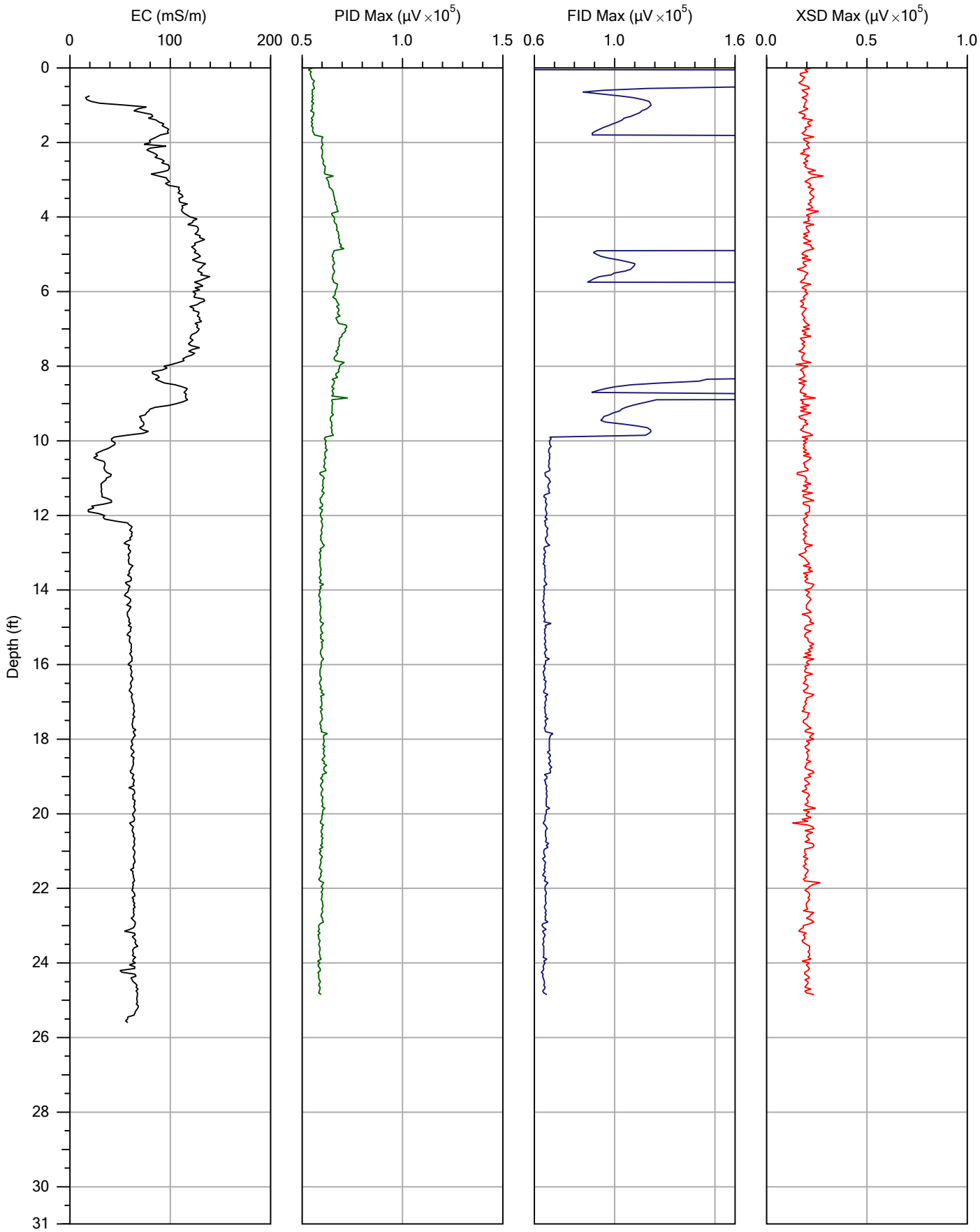
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.4	4.4	PASS
High	290.0	290.3	0.1	PASS

********** USER NOTES **********

w/ new membrane R 101.



			File: MIP-23.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/19/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.8	6.9	PASS
High	290.0	276.9	4.5	PASS

MIP-23.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-23.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Apr 19 2012 14:56:56

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Thu Apr 19 2012 15:12:41

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 24.85 ft (7.574 m)
LOG END TIME: Thu Apr 19 2012 15:40:24

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-23.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min

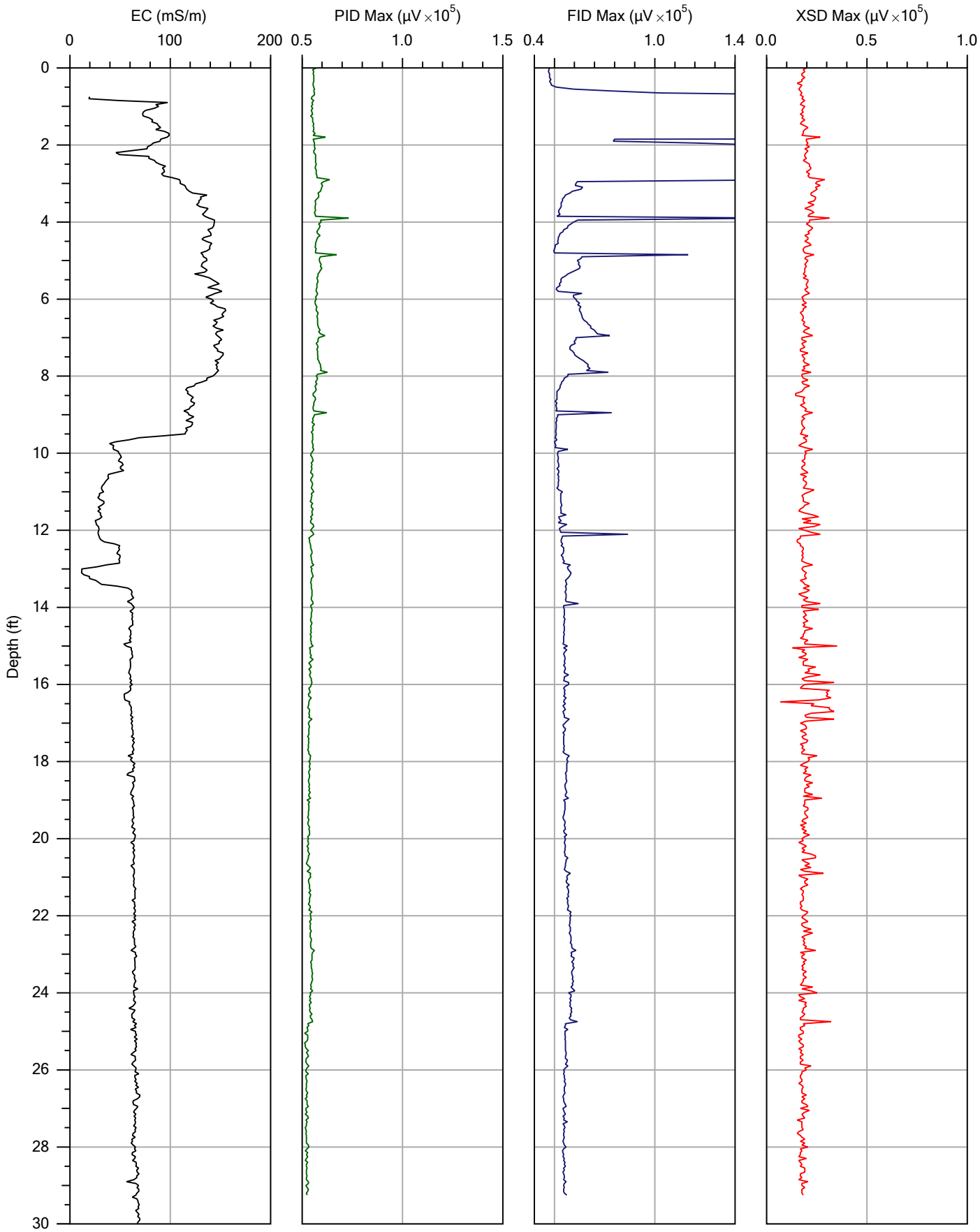
RESPONSE TEST START TIME: Thu Apr 19 2012 15:47:01

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.0	7.2	PASS
High	290.0	305.6	5.4	PASS



			File: MIP-24.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/19/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.1	7.4	PASS
High	290.0	305.8	5.4	PASS

MIP-24.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Thu Apr 19 2012 16:00:30

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.25 ft (8.915 m)
LOG END TIME: Thu Apr 19 2012 16:40:41

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

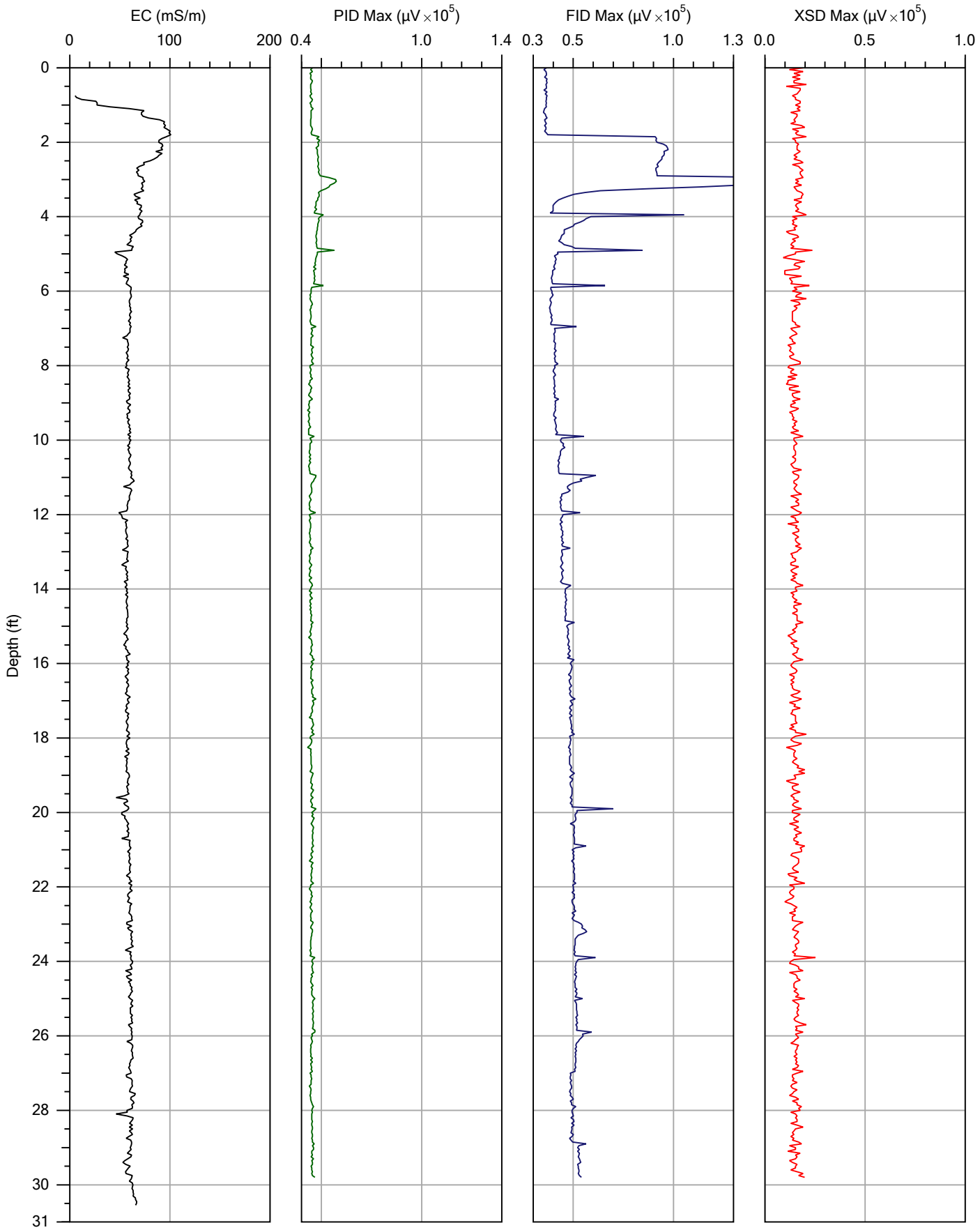
FILENAME: MIP-24.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Apr 19 2012 16:49:56

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.7	3.2	PASS
High	290.0	305.9	5.5	PASS



			File: MIP-25.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/20/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.6	2.9	PASS
High	290.0	293.3	1.1	PASS

MIP-25.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-25.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Fri Apr 20 2012 08:16:04

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Fri Apr 20 2012 08:30:17

MIP Pressure out of range (12.9 psi / 89 kPa) at 29.80 ft (9.083 m)

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.80 ft (9.083 m)
LOG END TIME: Fri Apr 20 2012 09:08:53

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-25.post.tim

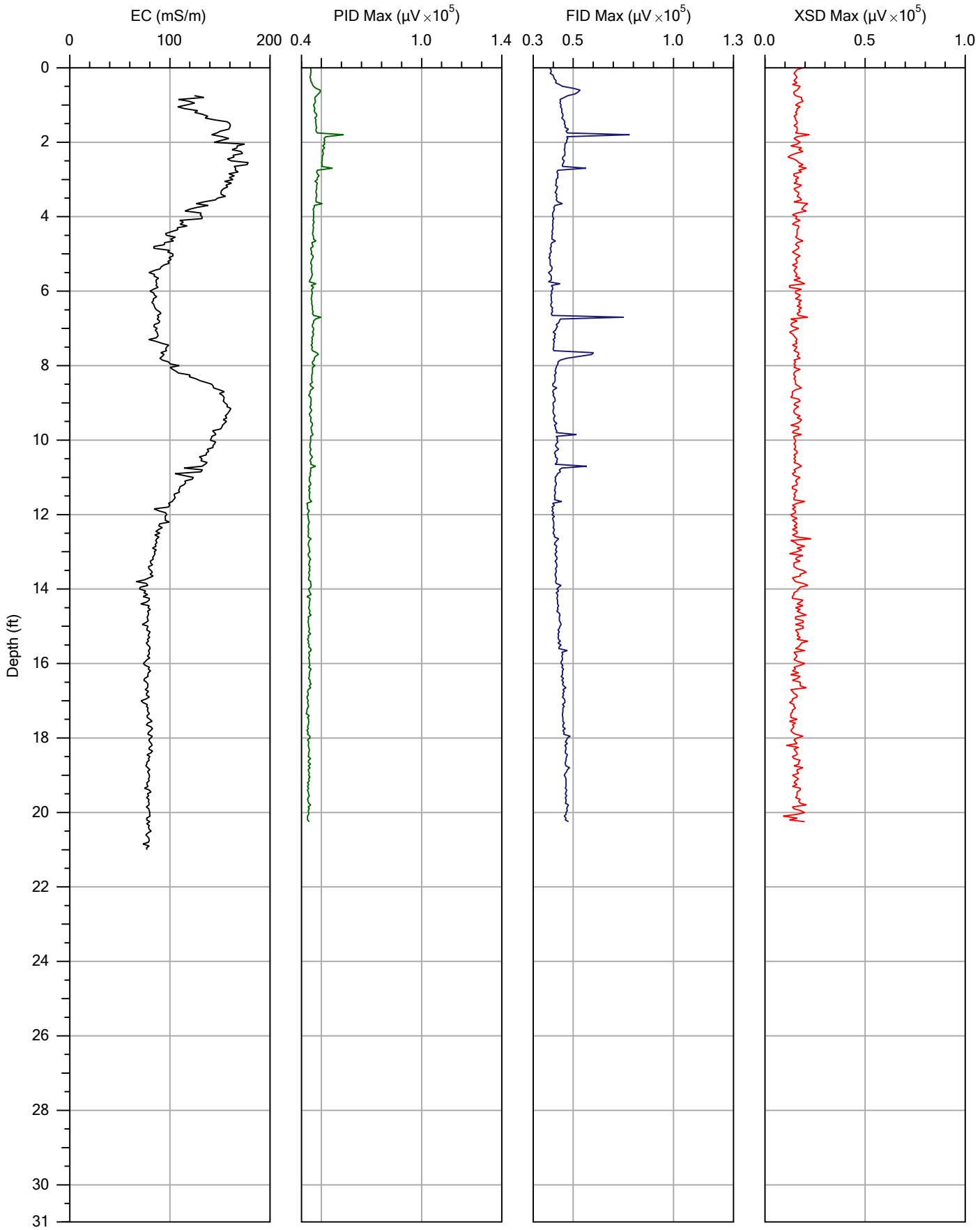
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Fri Apr 20 2012 09:15:15

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.5	4.5	PASS
High	290.0	300.9	3.7	PASS



			File: MIP-26.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/20/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.8	3.3	PASS
High	290.0	302.4	4.3	PASS

MIP-26.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Fri Apr 20 2012 09:29:23

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 20.25 ft (6.172 m)
LOG END TIME: Fri Apr 20 2012 10:09:51

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

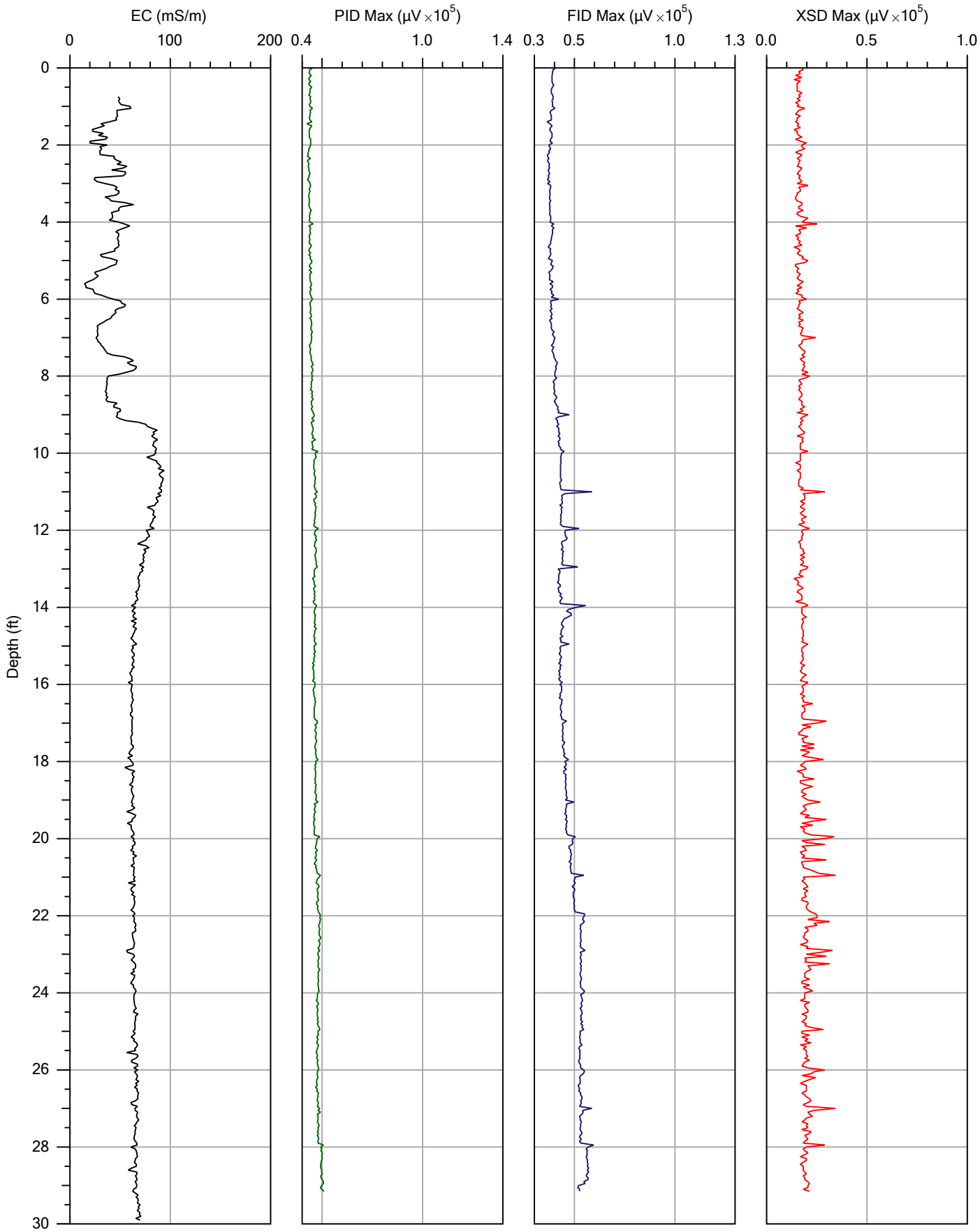
FILENAME: MIP-26.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 0.25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Fri Apr 20 2012 10:15:37

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.1	7.4	PASS
High	290.0	304.3	4.9	PASS



			File: MIP-27.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/20/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.7	6.8	PASS
High	290.0	300.4	3.6	PASS

MIP-27.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Fri Apr 20 2012 10:31:09

MIP Pressure out of range (13.0 psi / 90 kPa) at 29.15 ft (8.885 m)

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.15 ft (8.885 m)
LOG END TIME: Fri Apr 20 2012 11:13:07

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

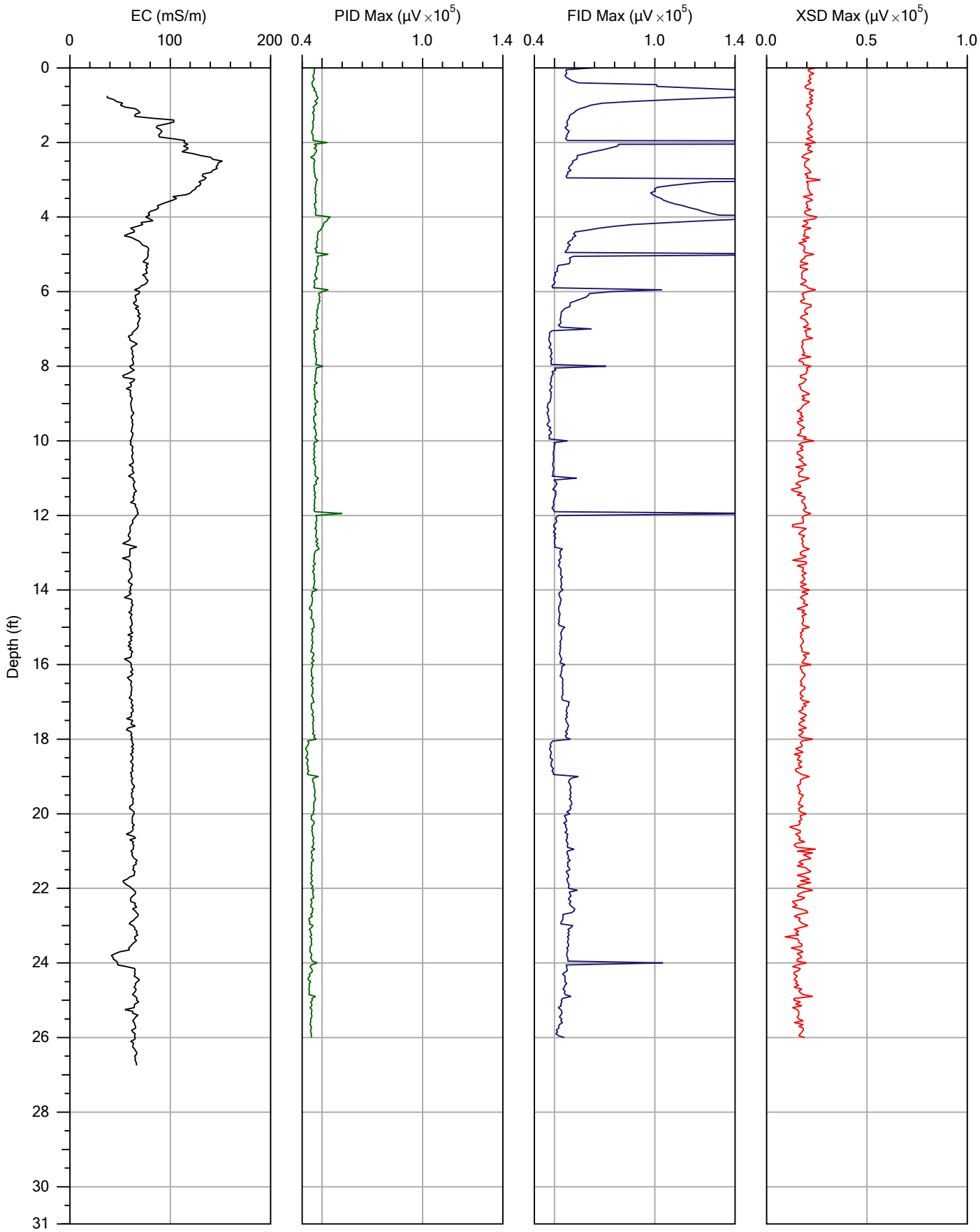
FILENAME: MIP-27.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Fri Apr 20 2012 11:21:42

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.5	4.6	PASS
High	290.0	298.3	2.9	PASS



			File: MIP-28.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/20/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.5	4.6	PASS
High	290.0	296.5	2.2	PASS

MIP-28.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Fri Apr 20 2012 11:36:25

MIP Pressure out of range (12.9 psi / 89 kPa) at 26.00 ft (7.925 m)

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 26.00 ft (7.925 m)
LOG END TIME: Fri Apr 20 2012 12:16:56

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

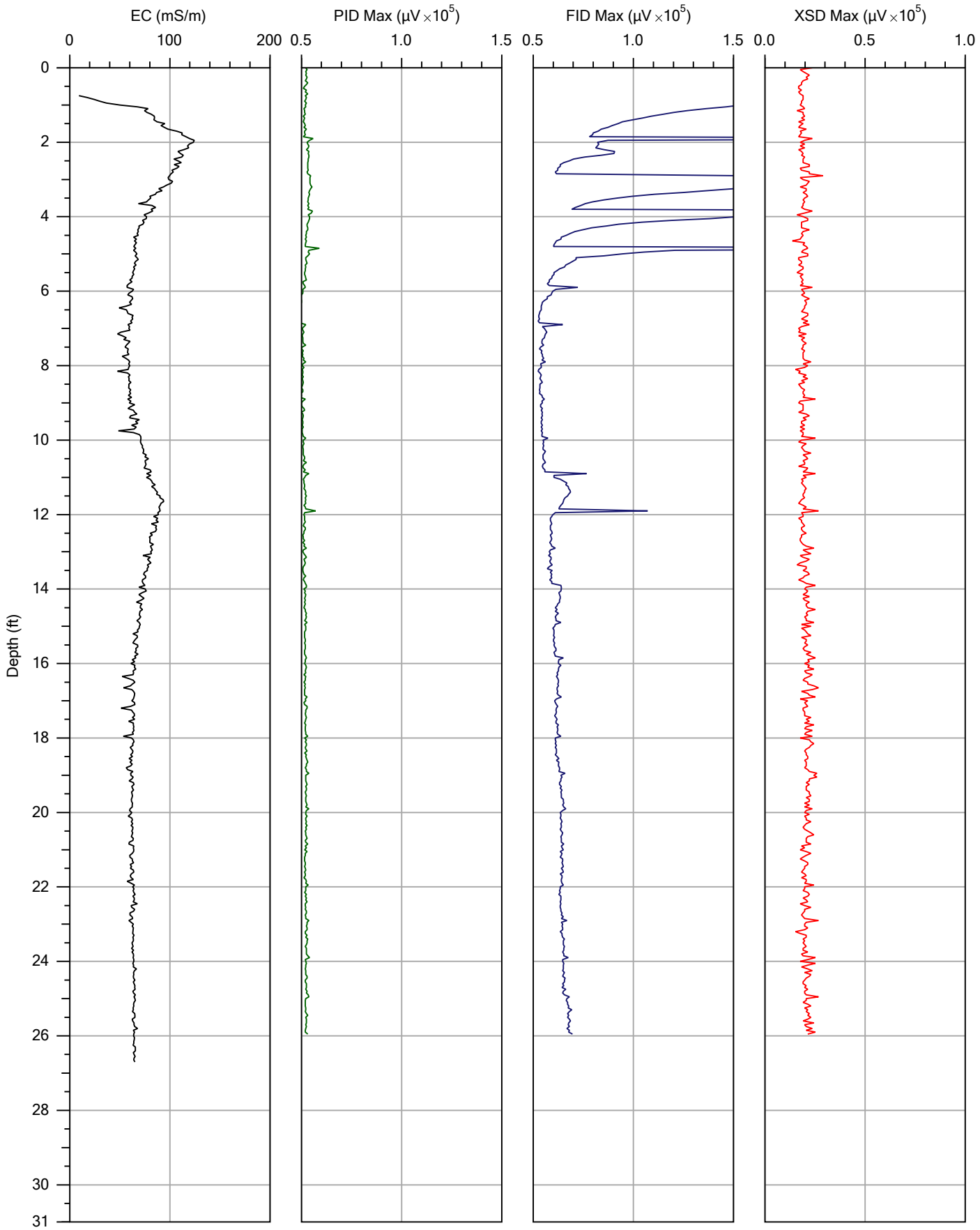
FILENAME: MIP-28.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Fri Apr 20 2012 12:25:45

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.9	8.9	PASS
High	290.0	311.1	7.3	PASS



			File: MIP-29.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/20/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.6	4.7	PASS
High	290.0	292.2	0.8	PASS

MIP-29.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-29.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Fri Apr 20 2012 14:10:27

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Fri Apr 20 2012 14:23:34

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 25.95 ft (7.910 m)
LOG END TIME: Fri Apr 20 2012 14:51:38

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-29.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min

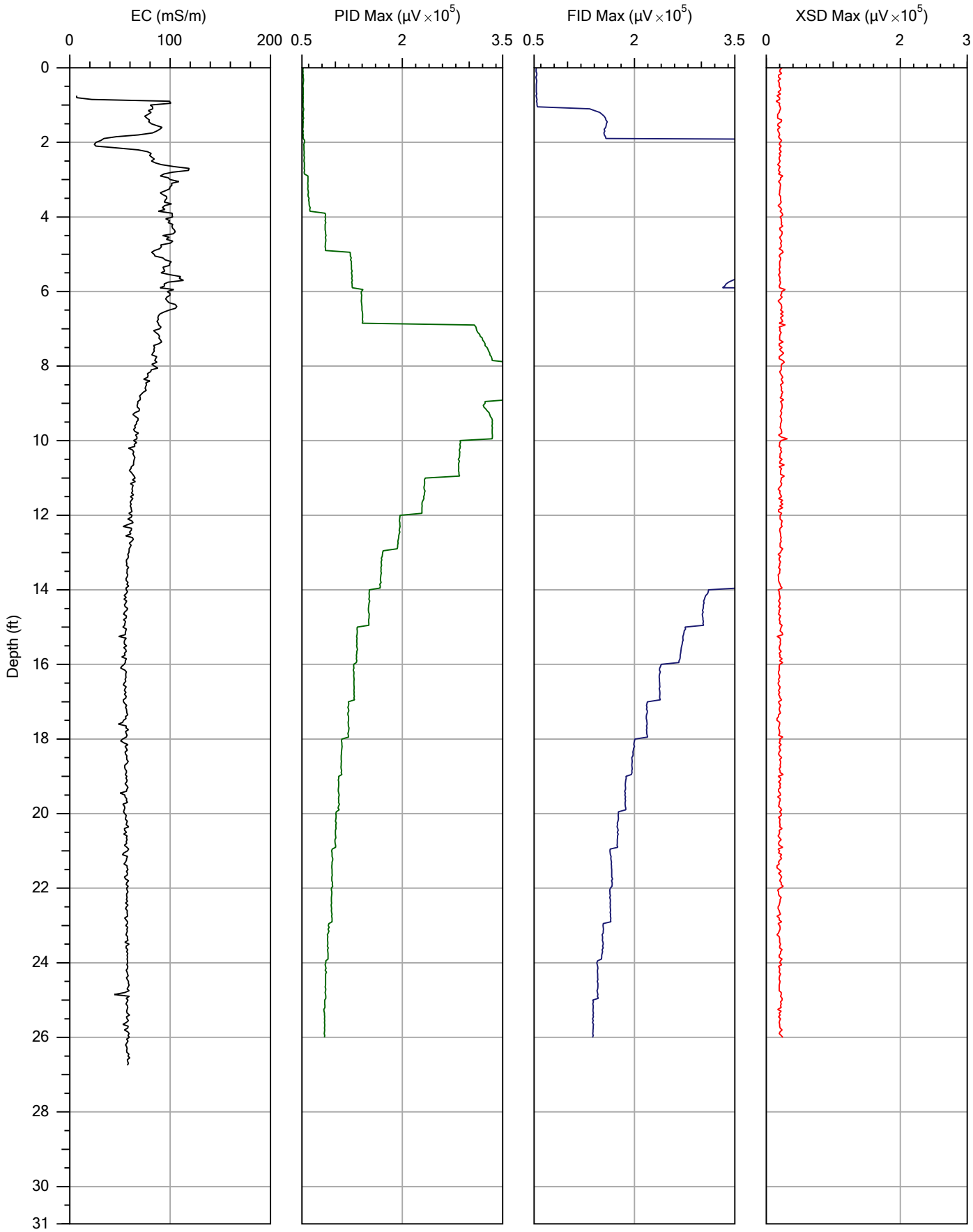
RESPONSE TEST START TIME: Fri Apr 20 2012 14:59:17

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	54.7	0.6	PASS
High	290.0	281.9	2.8	PASS



			File: MIP-30.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/20/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	54.5	0.9	PASS
High	290.0	277.2	4.4	PASS

MIP-30.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Fri Apr 20 2012 15:16:46

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 26.00 ft (7.925 m)
LOG END TIME: Fri Apr 20 2012 16:00:04

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

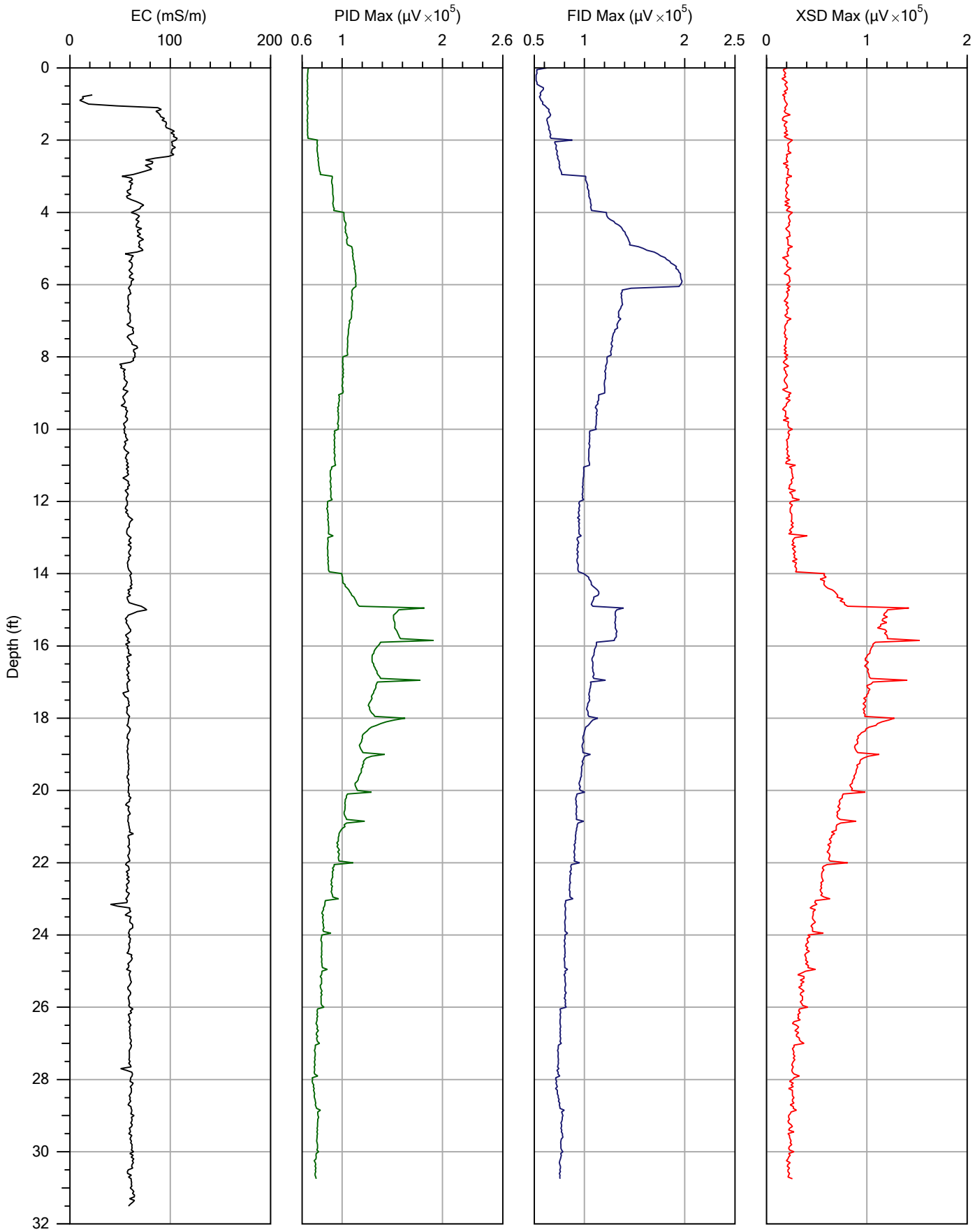
FILENAME: MIP-30.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Fri Apr 20 2012 16:18:35

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	54.9	0.1	PASS
High	290.0	284.6	1.9	PASS



			File: MIP-31.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/20/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.0	0.1	PASS
High	290.0	270.5	6.7	PASS

MIP-31.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Fri Apr 20 2012 16:39:43

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.75 ft (9.373 m)
LOG END TIME: Fri Apr 20 2012 17:25:27

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

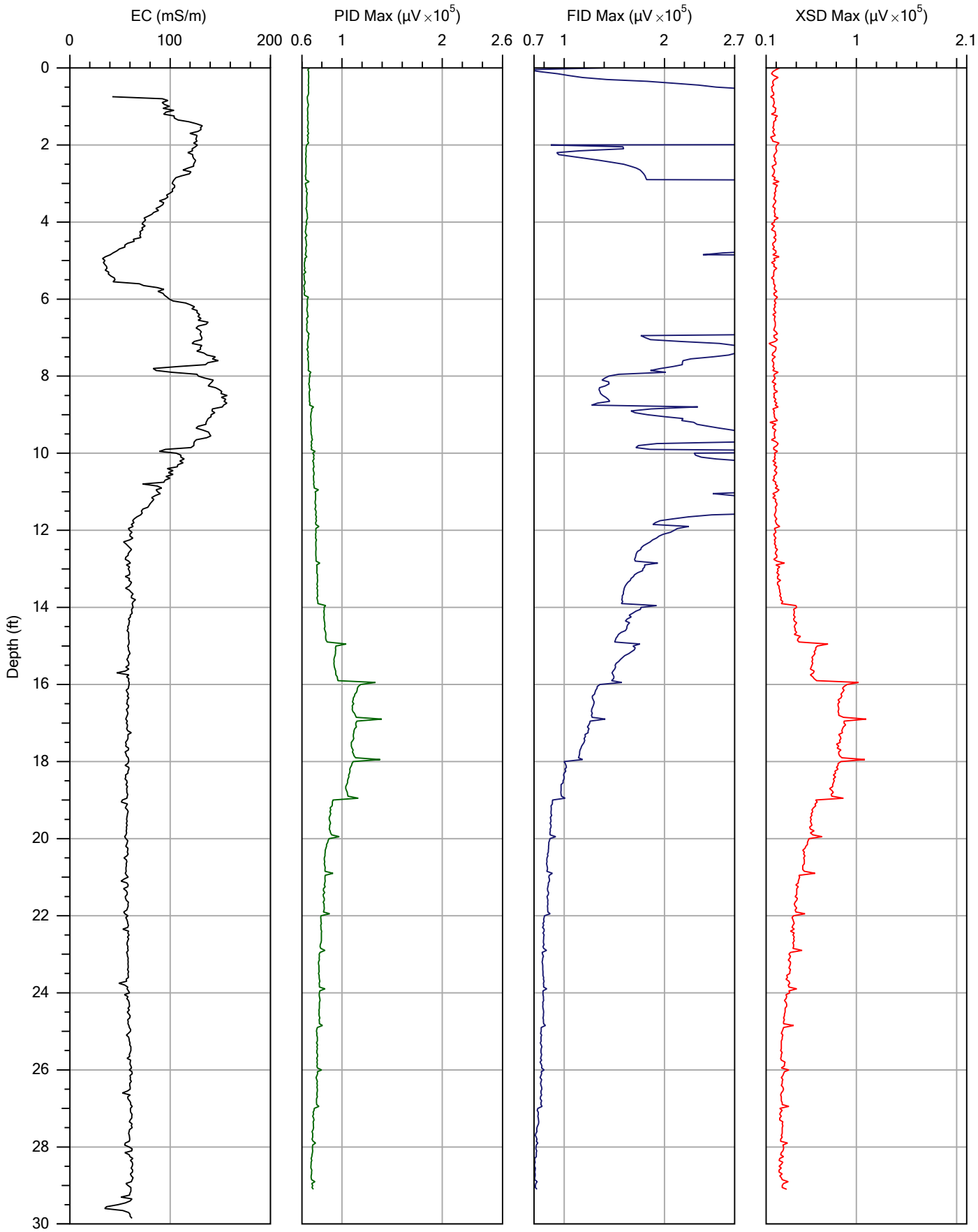
FILENAME: MIP-31.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Fri Apr 20 2012 17:51:19

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.2	0.5	PASS
High	290.0	279.6	3.6	PASS



			File: MIP-32.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/20/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.4	0.8	PASS
High	290.0	283.3	2.3	PASS

MIP-32.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Fri Apr 20 2012 18:02:55

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.10 ft (8.870 m)
LOG END TIME: Fri Apr 20 2012 18:49:22

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

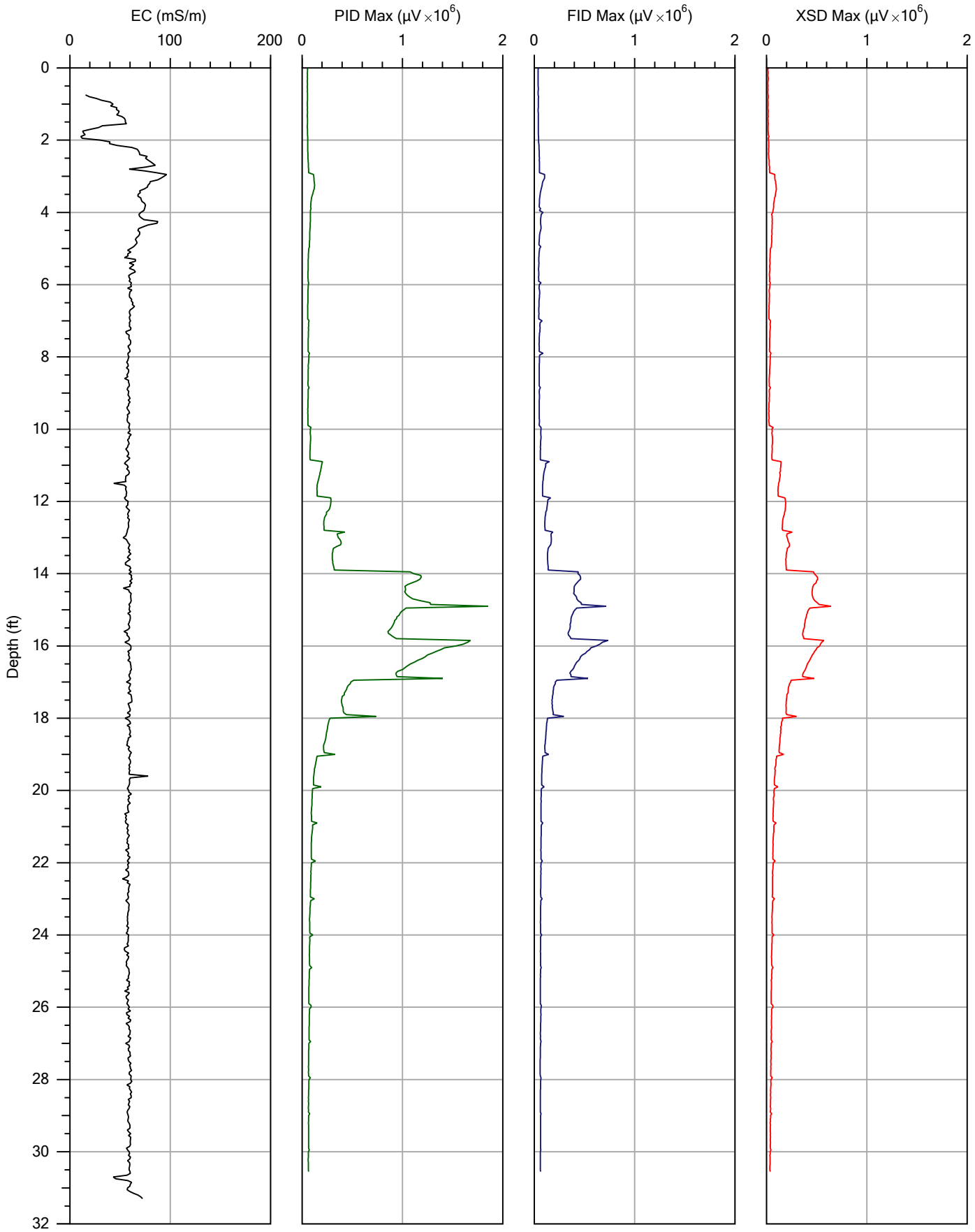
FILENAME: MIP-32.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Fri Apr 20 2012 19:01:47

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.5	0.9	PASS
High	290.0	280.9	3.1	PASS



			File: MIP-33.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/21/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.3	0.6	PASS
High	290.0	282.5	2.6	PASS

MIP-33.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-33.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Sat Apr 21 2012 08:36:19

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Sat Apr 21 2012 08:48:44

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1
14.90	4.542	32	32	10	1
17.95	5.471	4	4	10	1

LOG END DEPTH: 30.55 ft (9.312 m)
LOG END TIME: Sat Apr 21 2012 09:42:13

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-33.post.tim
COMPOUND: TCE

CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Sat Apr 21 2012 10:01:43

RESPONSE TEST ATTENUATION CHANGES

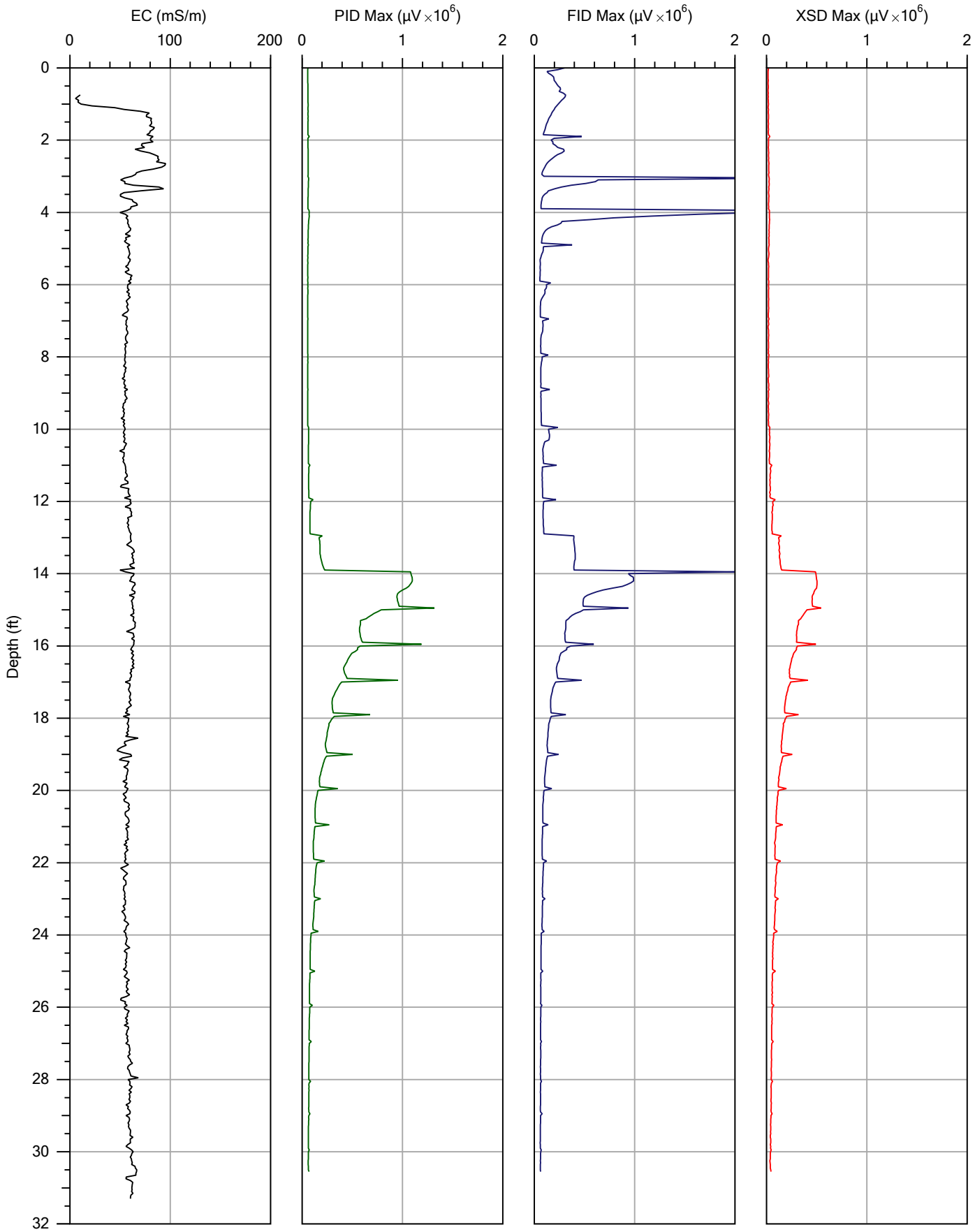
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.6	1.2	PASS
High	290.0	287.8	0.8	PASS

********** USER NOTES **********

refusal @ 30.55 feet.



			File: MIP-34.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/21/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.5	0.9	PASS
High	290.0	287.1	1.0	PASS

MIP-34.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Sat Apr 21 2012 10:20:27

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.55 ft (9.312 m)
LOG END TIME: Sat Apr 21 2012 11:03:15

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-34.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Sat Apr 21 2012 11:14:27

RESPONSE TEST ATTENUATION CHANGES

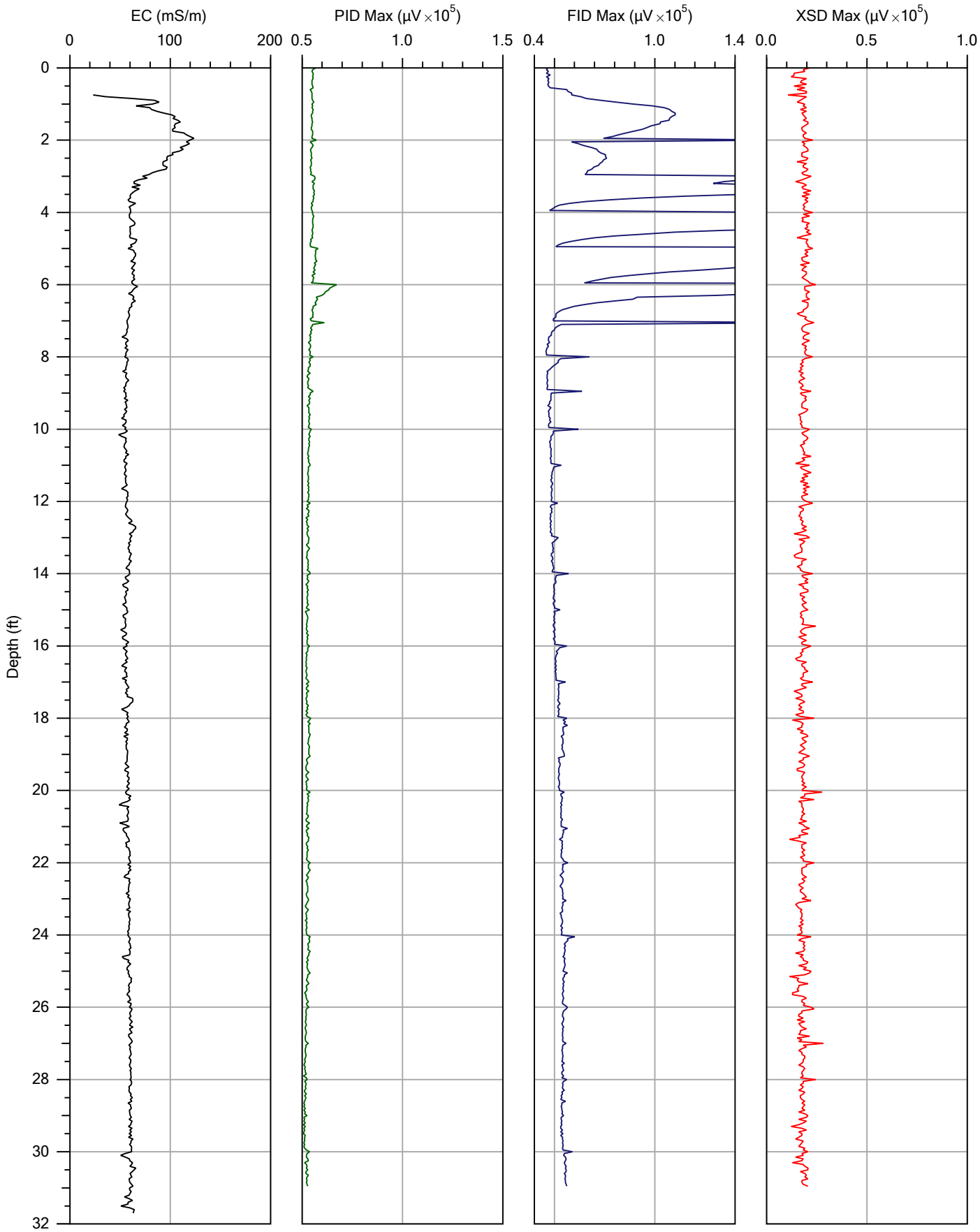
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.5	0.9	PASS
High	290.0	289.1	0.3	PASS

********** USER NOTES **********

refusal @ 30.55 feet.



			File: MIP-35.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/21/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.5	0.8	PASS
High	290.0	289.7	0.1	PASS

MIP-35.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Sat Apr 21 2012 11:26:10

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.95 ft (9.434 m)
LOG END TIME: Sat Apr 21 2012 12:10:39

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-35.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Sat Apr 21 2012 12:20:43

RESPONSE TEST ATTENUATION CHANGES

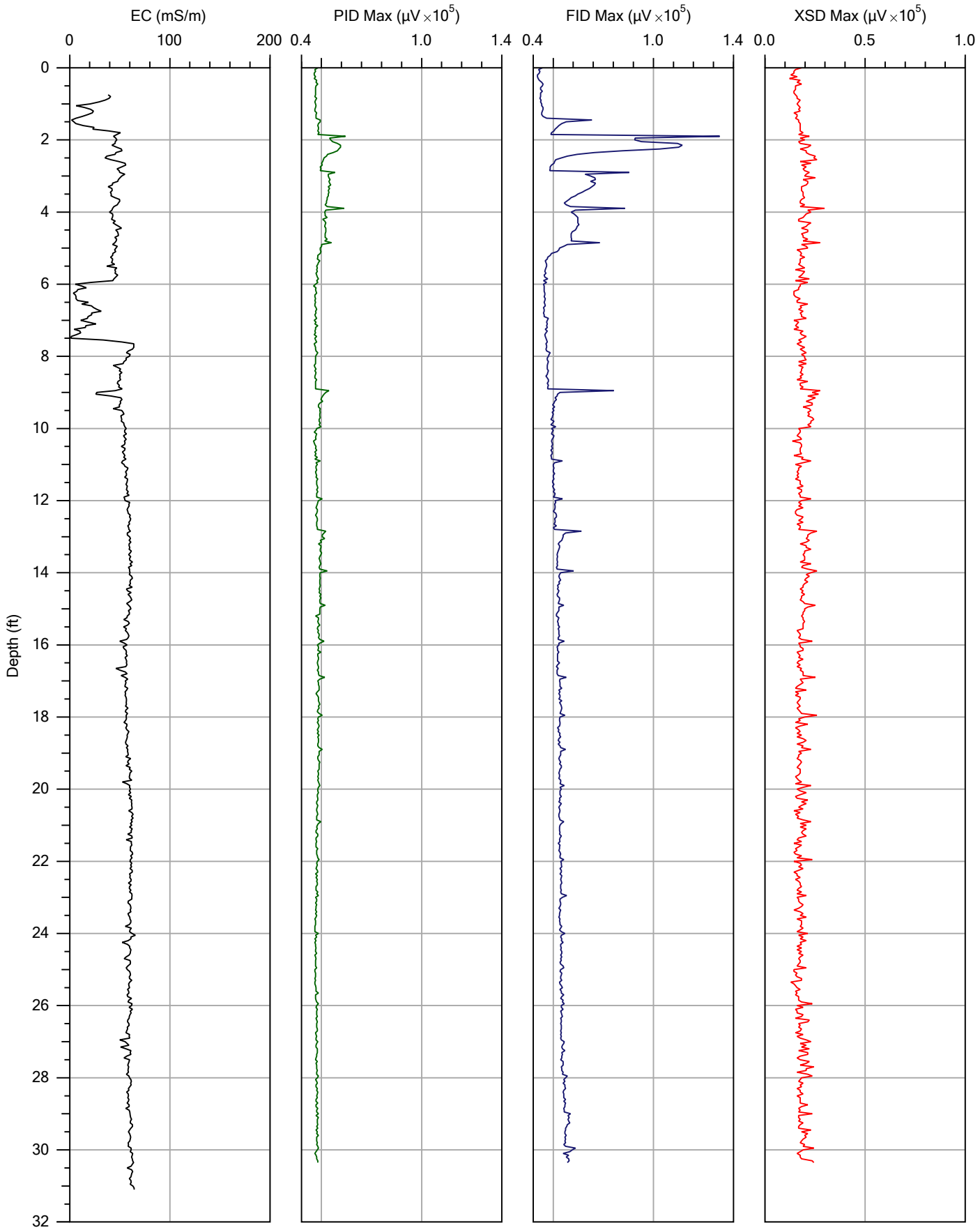
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.1	2.0	PASS
High	290.0	288.1	0.7	PASS

********** USER NOTES **********

refusal @ 30.95 feet.



			File: MIP-36.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/21/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.4	8.0	PASS
High	290.0	300.2	3.5	PASS

MIP-36.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-36.pre.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Sat Apr 21 2012 14:04:08

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Sat Apr 21 2012 14:08:23

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.35 ft (9.251 m)
LOG END TIME: Sat Apr 21 2012 14:52:33

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-36.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5 ppm
FLOW: 40 mL/min

RESPONSE TEST START TIME: Sat Apr 21 2012 15:04:04

RESPONSE TEST ATTENUATION CHANGES

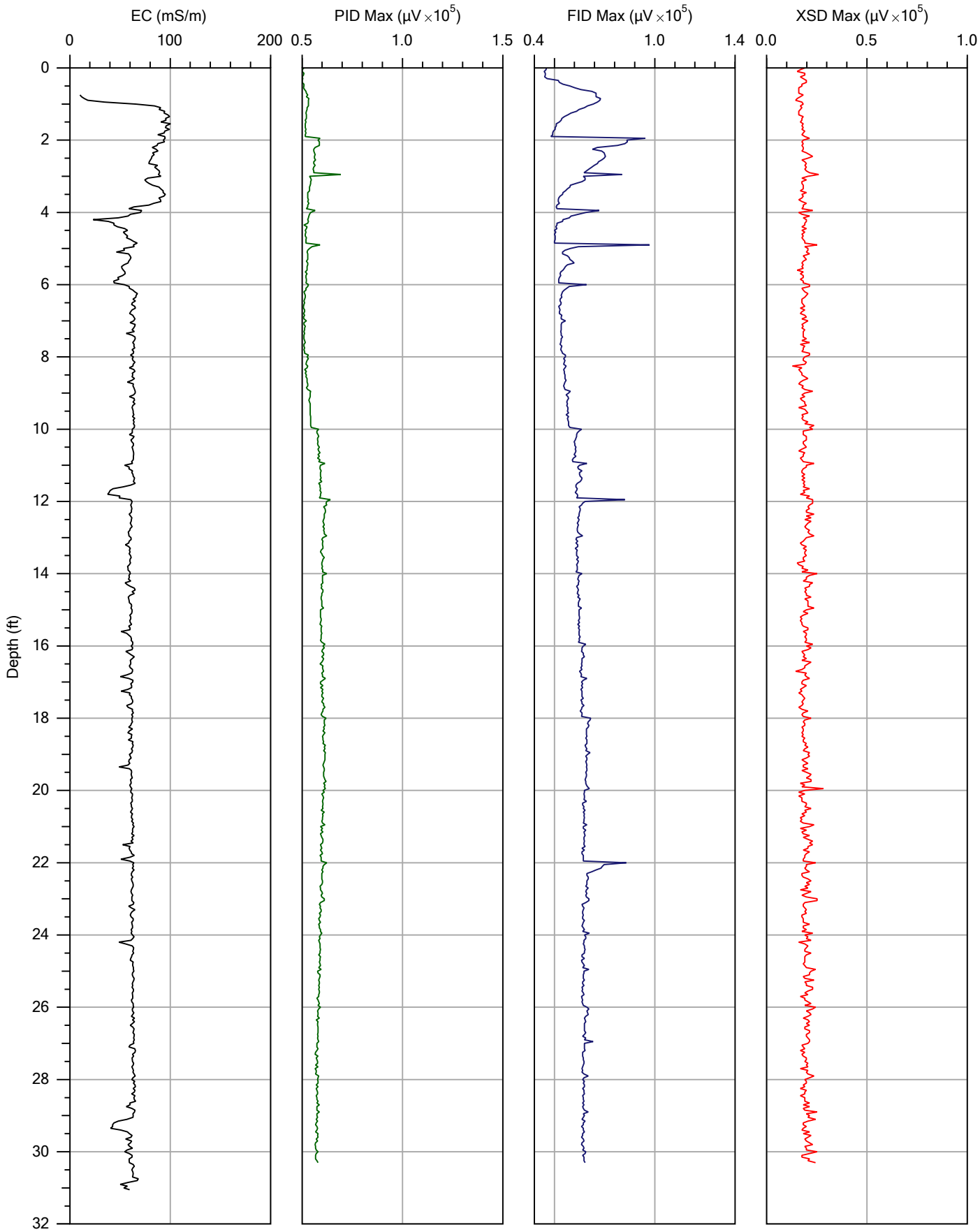
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.6	8.4	PASS
High	290.0	305.6	5.4	PASS

********** USER NOTES **********

refusal @ 30.35 feet.



			File: MIP-37.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/21/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.8	8.7	PASS
High	290.0	310.8	7.2	PASS

MIP-37.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Sat Apr 21 2012 15:16:07

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.30 ft (9.235 m)
LOG END TIME: Sat Apr 21 2012 15:56:19

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-37.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Sat Apr 21 2012 16:04:39

RESPONSE TEST ATTENUATION CHANGES

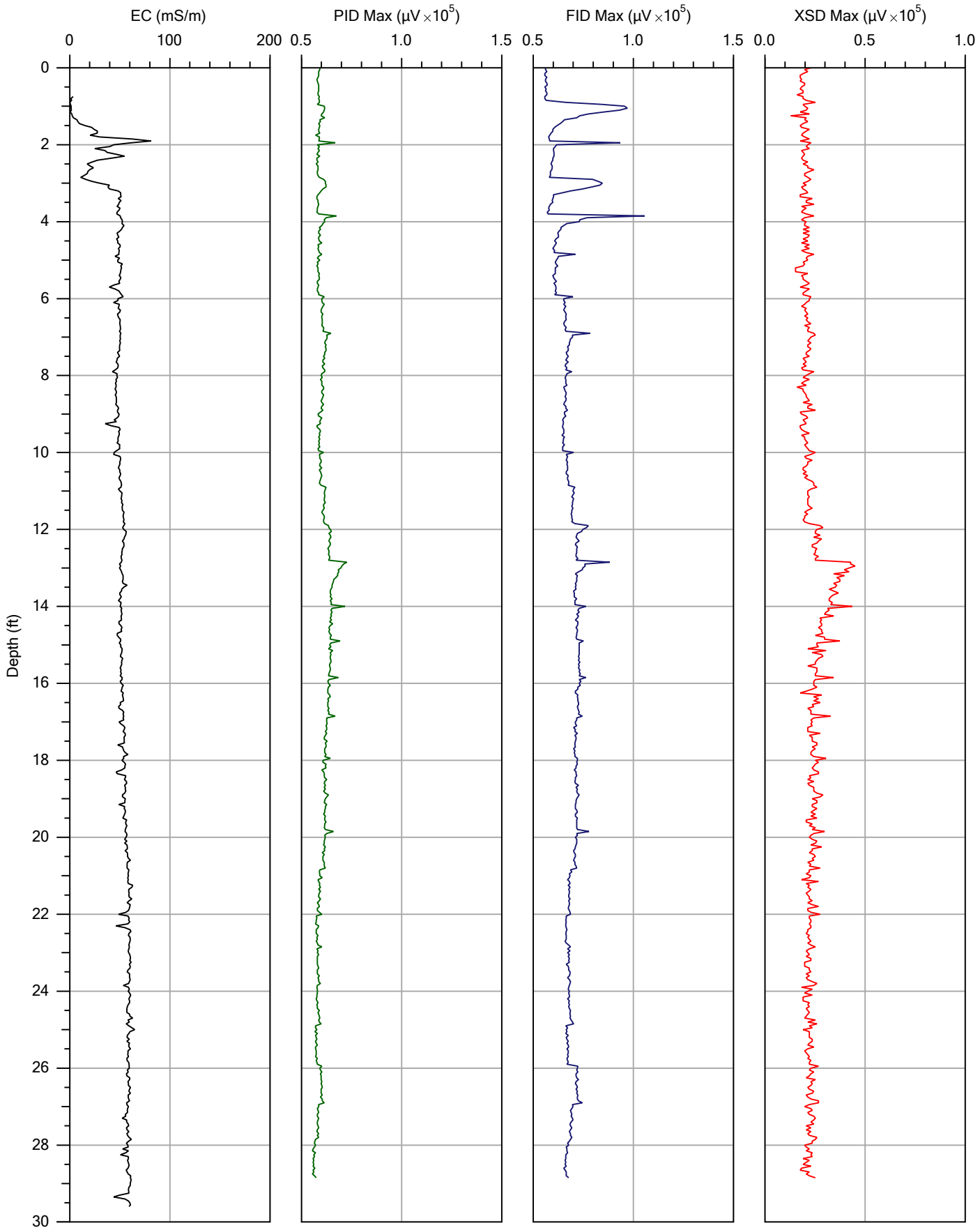
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.9	8.9	PASS
High	290.0	299.0	3.1	PASS

********** USER NOTES **********

refusal @ 30.30 feet.



			File: MIP-38.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/21/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.6	8.4	PASS
High	290.0	302.0	4.1	PASS

MIP-38.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Sat Apr 21 2012 16:22:41

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 28.85 ft (8.793 m)
LOG END TIME: Sat Apr 21 2012 17:02:48

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-38.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Sat Apr 21 2012 17:10:49

RESPONSE TEST ATTENUATION CHANGES

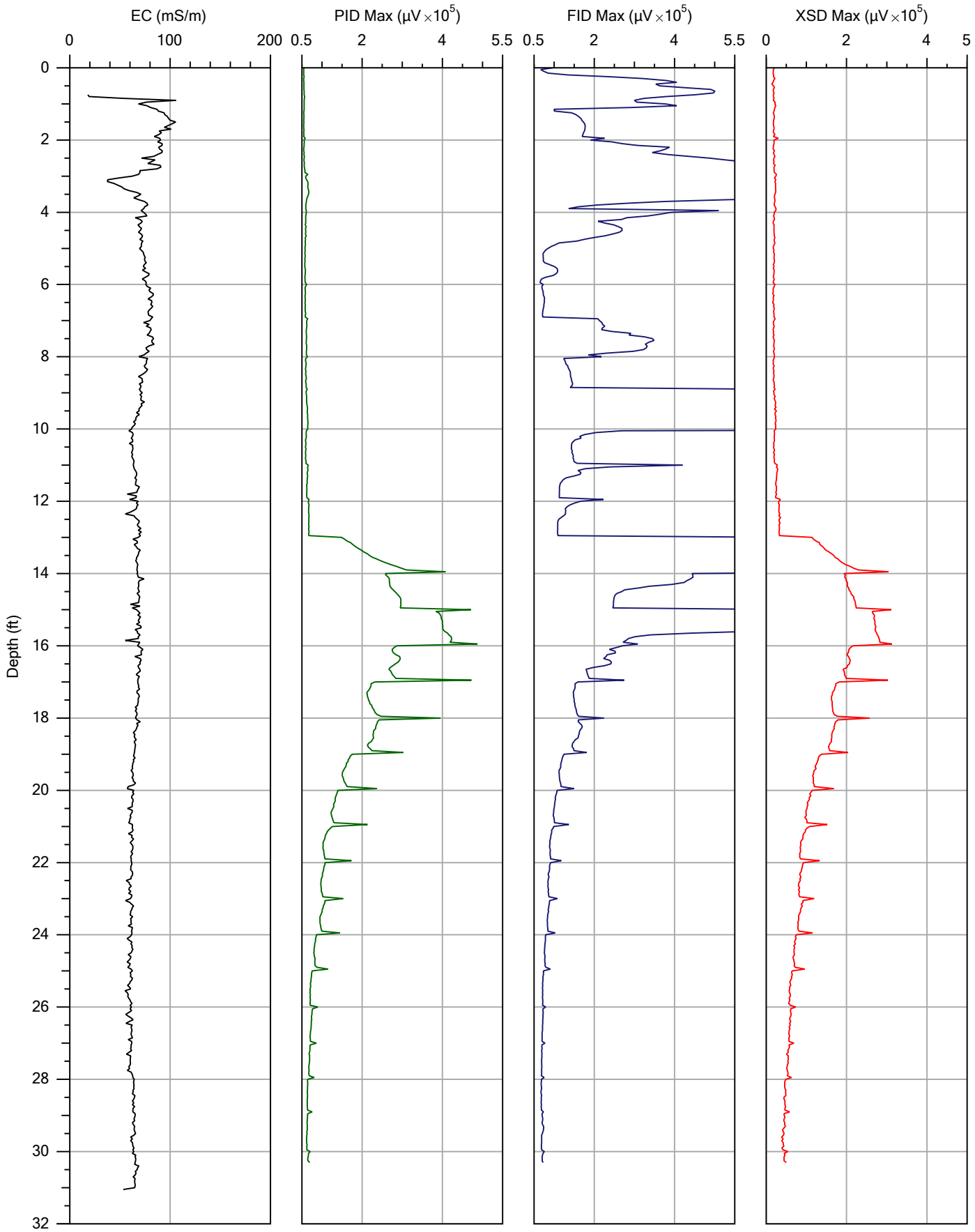
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.1	5.6	PASS
High	290.0	302.5	4.3	PASS

********** USER NOTES **********

refusal @ ~29 feet.



			File: MIP-39.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/21/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

EC PRE-LOG TESTS BYPASSED

MIP-39.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Sat Apr 21 2012 17:36:24

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.30 ft (9.235 m)
LOG END TIME: Sat Apr 21 2012 18:22:40

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-39.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Sat Apr 21 2012 18:35:39

RESPONSE TEST ATTENUATION CHANGES

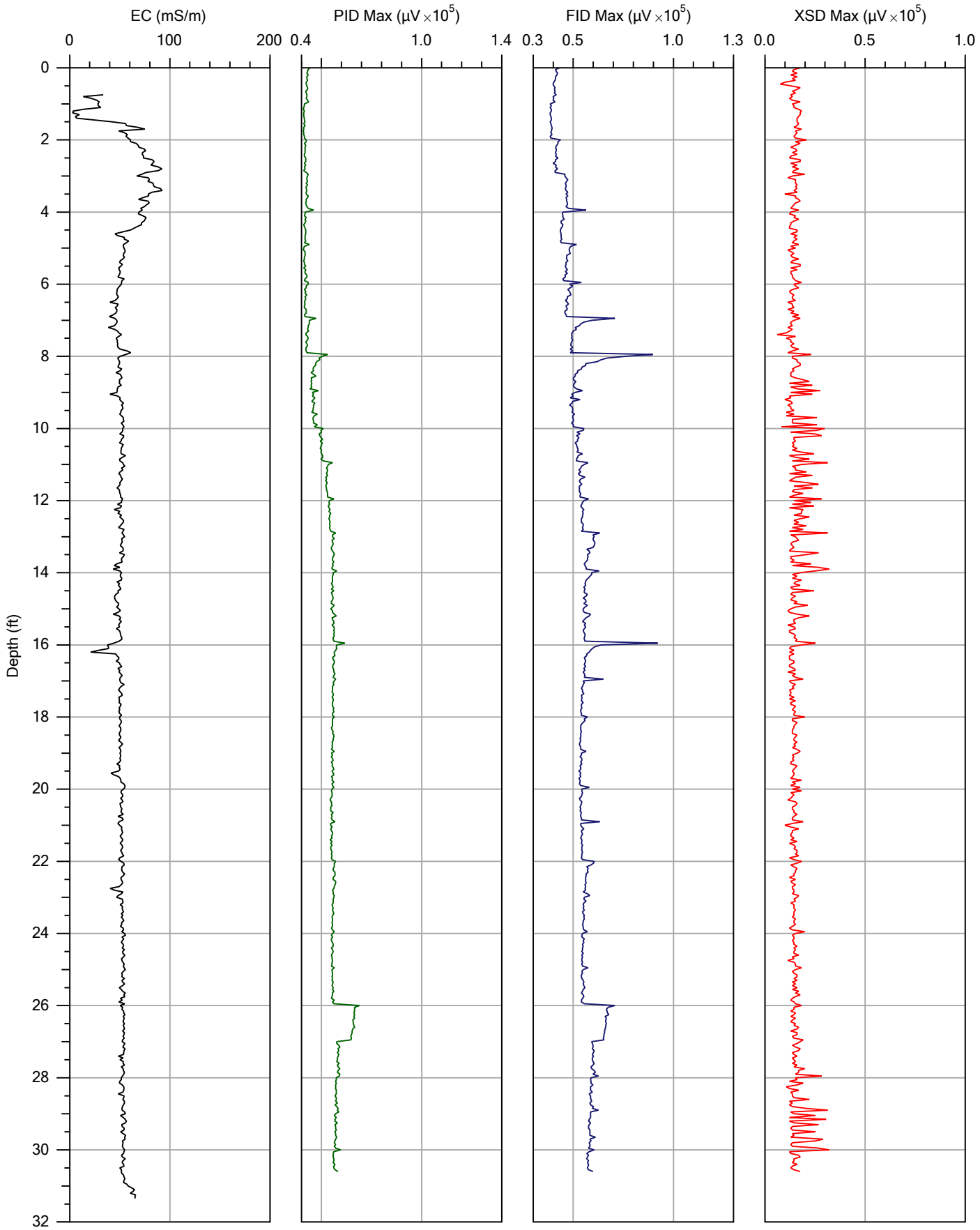
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.9	5.4	PASS
High	290.0	303.6	4.7	PASS

********** USER NOTES **********

refusal @ ~30.5 feet.



			File: MIP-40.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/23/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.6	1.1	PASS
High	290.0	287.9	0.7	PASS

MIP-40.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-40.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 23 2012 07:49:52

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 23 2012 08:07:14

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.60 ft (9.327 m)
LOG END TIME: Mon Apr 23 2012 08:59:12

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-40.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5 ppm
FLOW: 40 mL/min

RESPONSE TEST START TIME: Mon Apr 23 2012 09:07:54

RESPONSE TEST ATTENUATION CHANGES

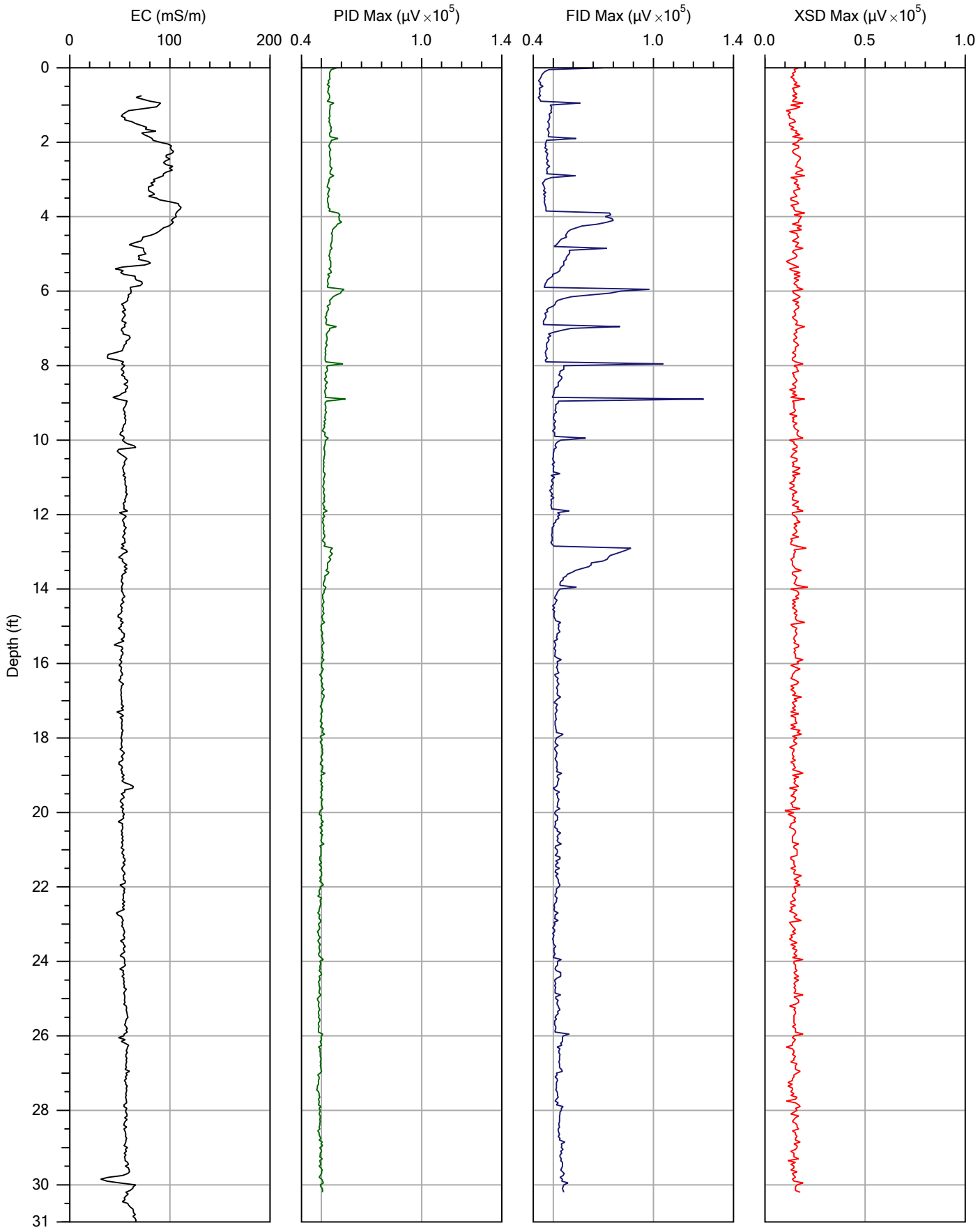
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.2	2.2	PASS
High	290.0	284.5	1.9	PASS

********** USER NOTES **********

refusal @ 30.6 feet



			File: MIP-41.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/23/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.1	3.8	PASS
High	290.0	292.9	1.0	PASS

MIP-41.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 23 2012 09:32:52

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.25 ft (9.220 m)
LOG END TIME: Mon Apr 23 2012 10:22:41

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-41.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 23 2012 10:29:32

RESPONSE TEST ATTENUATION CHANGES

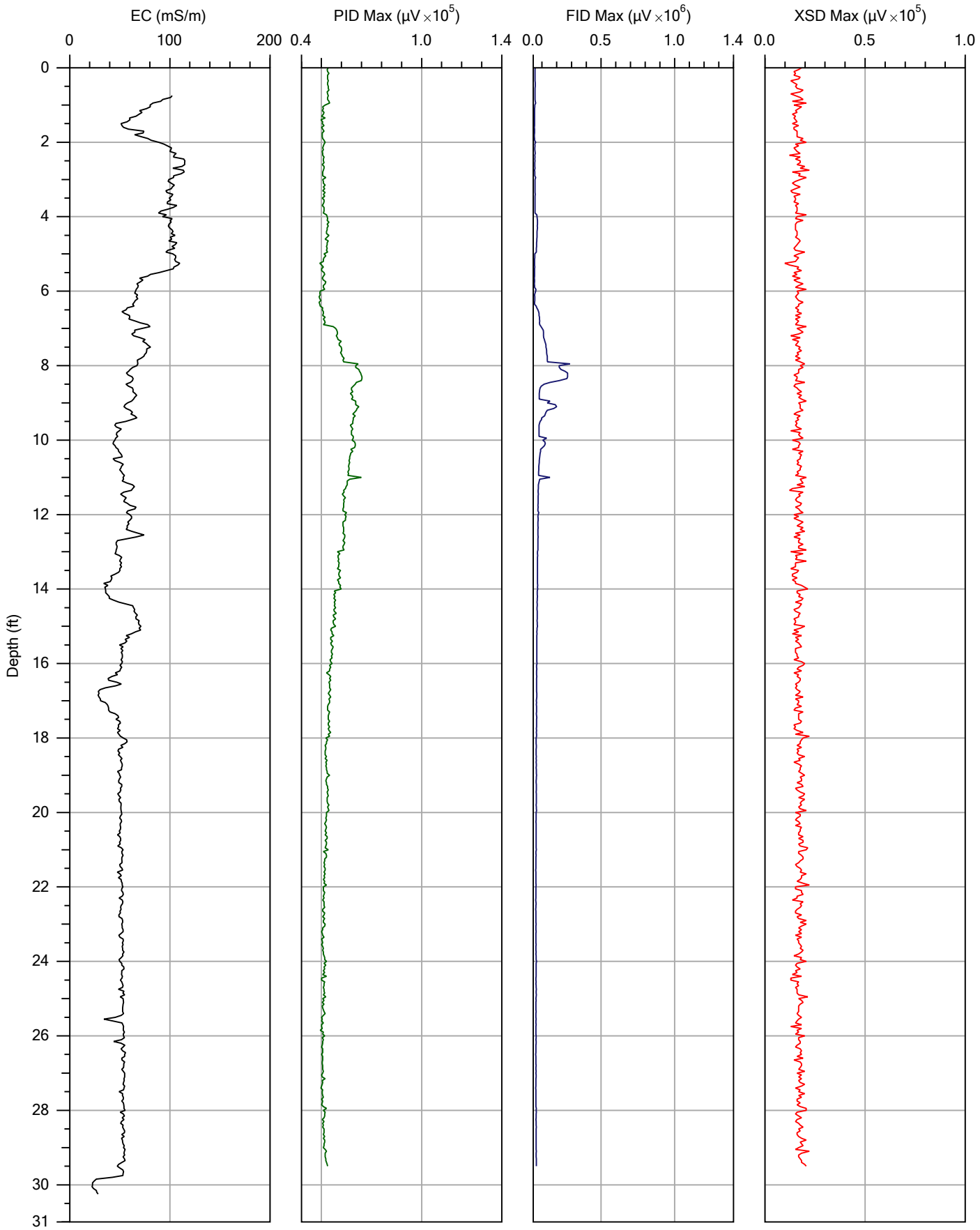
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.3	4.2	PASS
High	290.0	290.9	0.3	PASS

********** USER NOTES **********

refusal @ 30.2 feet.



			File: MIP-42.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/23/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.9	3.5	PASS
High	290.0	282.1	2.7	PASS

MIP-42.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 23 2012 10:39:44

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.50 ft (8.992 m)
LOG END TIME: Mon Apr 23 2012 11:18:18

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-42.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 23 2012 11:28:29

RESPONSE TEST ATTENUATION CHANGES

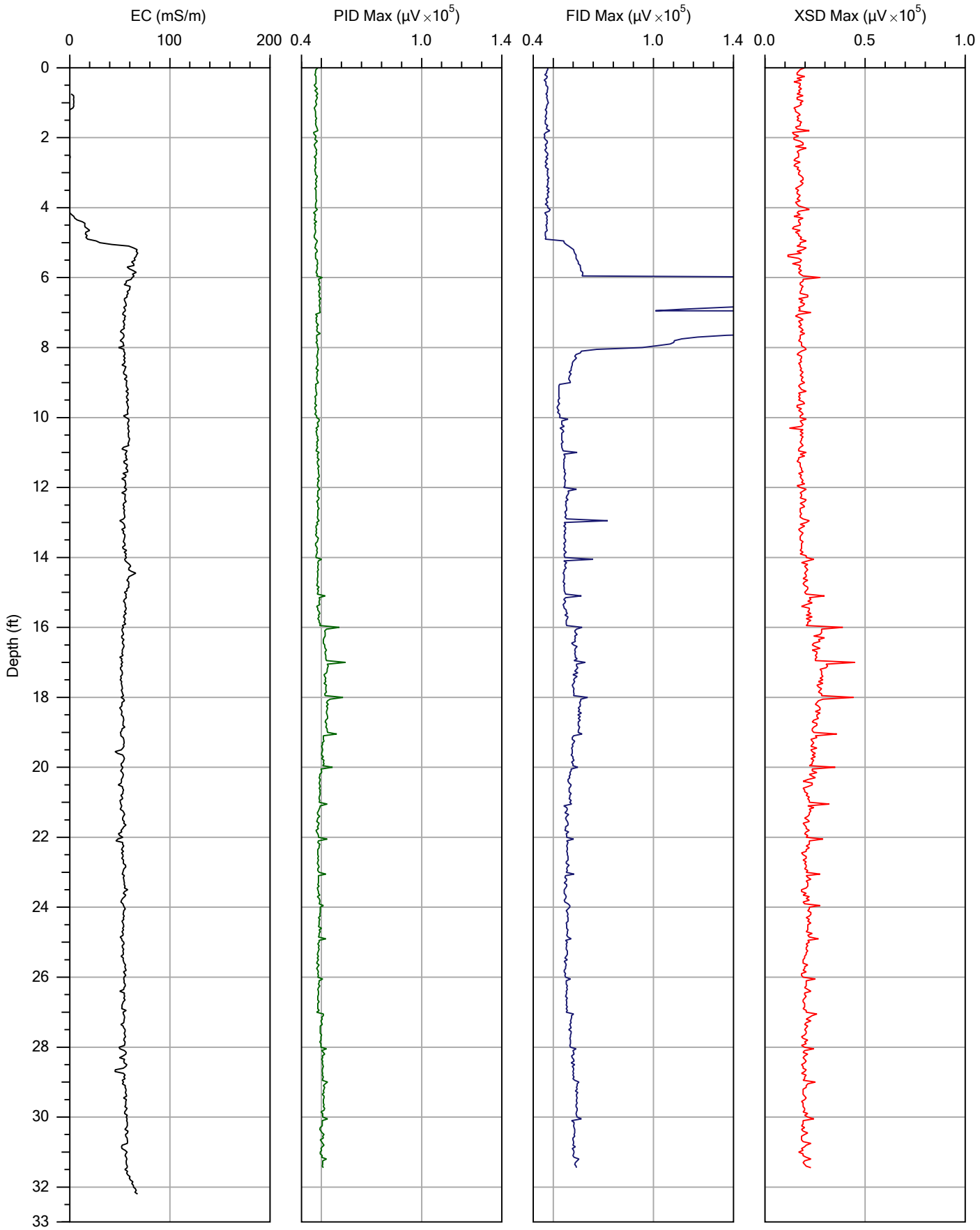
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.4	4.3	PASS
High	290.0	294.0	1.4	PASS

********** USER NOTES **********

refusal @ 29.5 feet. Upload data.



			File: MIP-43.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/23/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

EC PRE-LOG TESTS BYPASSED

MIP-43.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 23 2012 11:58:23

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 31.45 ft (9.586 m)
LOG END TIME: Mon Apr 23 2012 12:42:20

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-43.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 23 2012 12:51:45

RESPONSE TEST ATTENUATION CHANGES

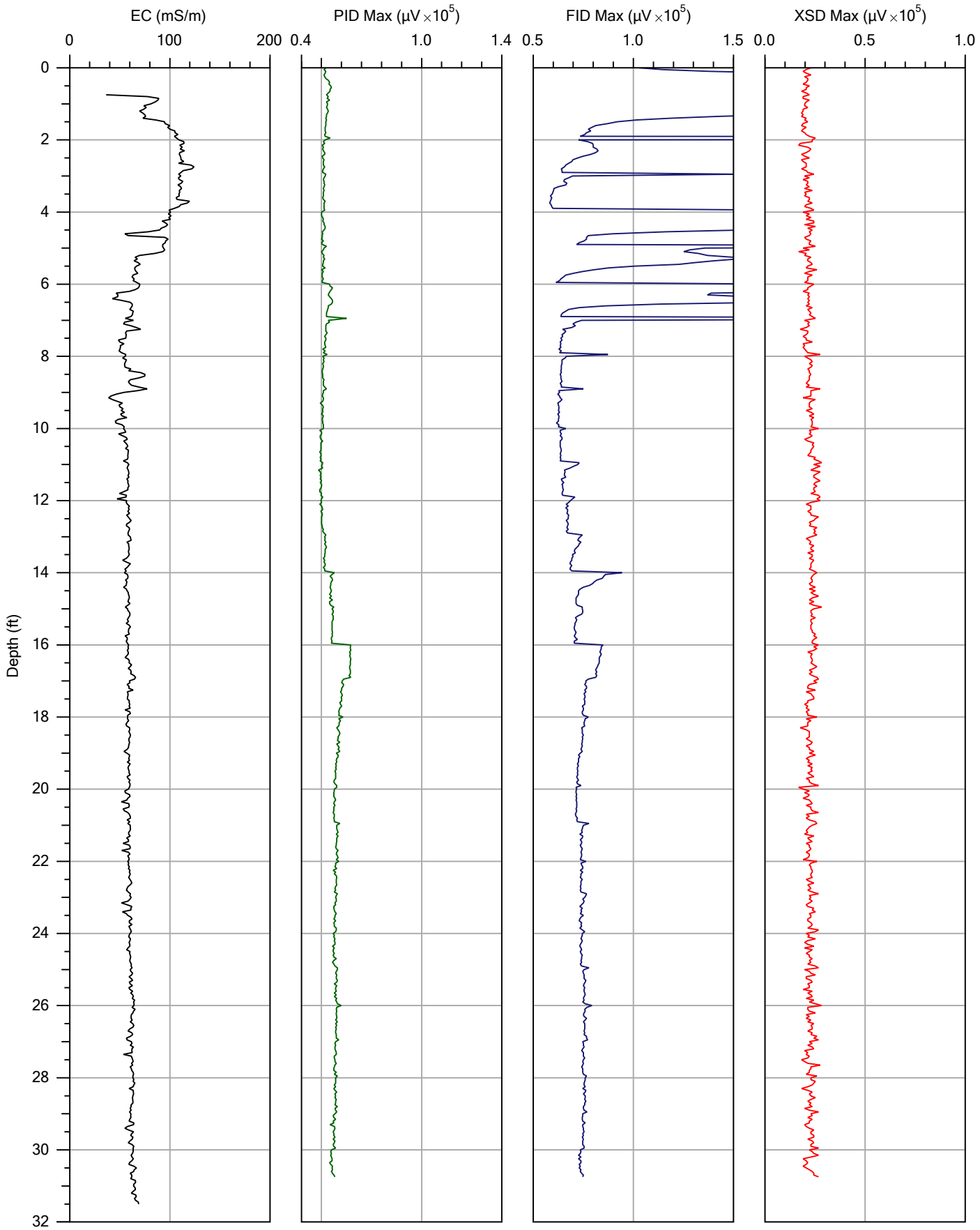
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.6	1.1	PASS
High	290.0	272.5	6.0	PASS

********** USER NOTES **********

Refusal @ 31.45 feet. Initially hit refusal @ 2', preprobed to 4 feet, went back down same hole (EC 0-4' = open hole, reads 0)



			File: MIP-44.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/23/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.9	5.2	PASS
High	290.0	294.7	1.6	PASS

MIP-44.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-44.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 23 2012 14:46:06

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 23 2012 14:58:19

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.75 ft (9.373 m)
LOG END TIME: Mon Apr 23 2012 15:35:16

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-44.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min

RESPONSE TEST START TIME: Mon Apr 23 2012 15:44:42

RESPONSE TEST ATTENUATION CHANGES

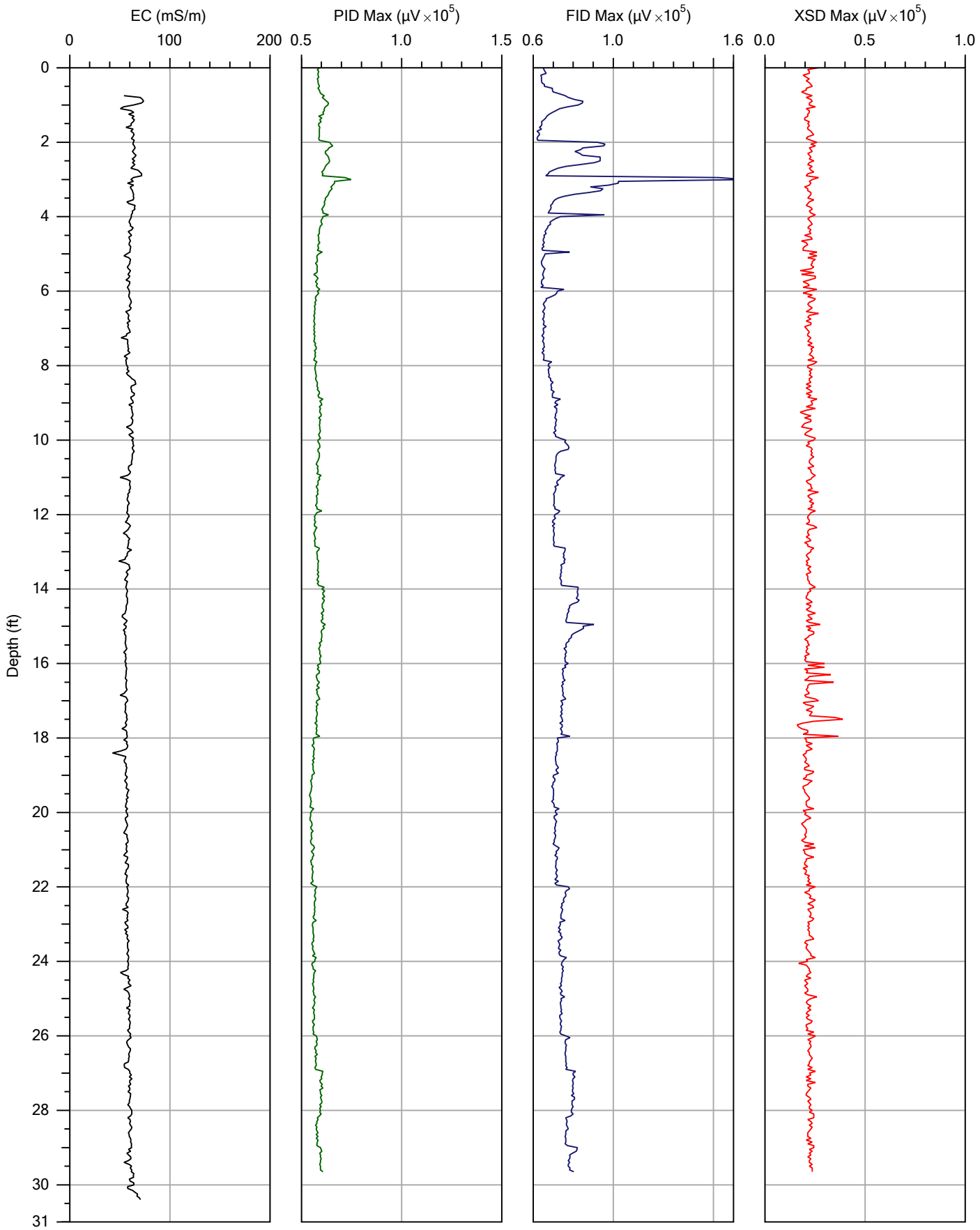
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.7	4.8	PASS
High	290.0	297.5	2.6	PASS

********** USER NOTES **********

refusal @ 30.75 feet.



			File: MIP-45.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/23/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.1	5.6	PASS
High	290.0	297.1	2.5	PASS

MIP-45.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 23 2012 15:55:10

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.65 ft (9.037 m)
LOG END TIME: Mon Apr 23 2012 16:36:51

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-45.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 23 2012 16:44:18

RESPONSE TEST ATTENUATION CHANGES

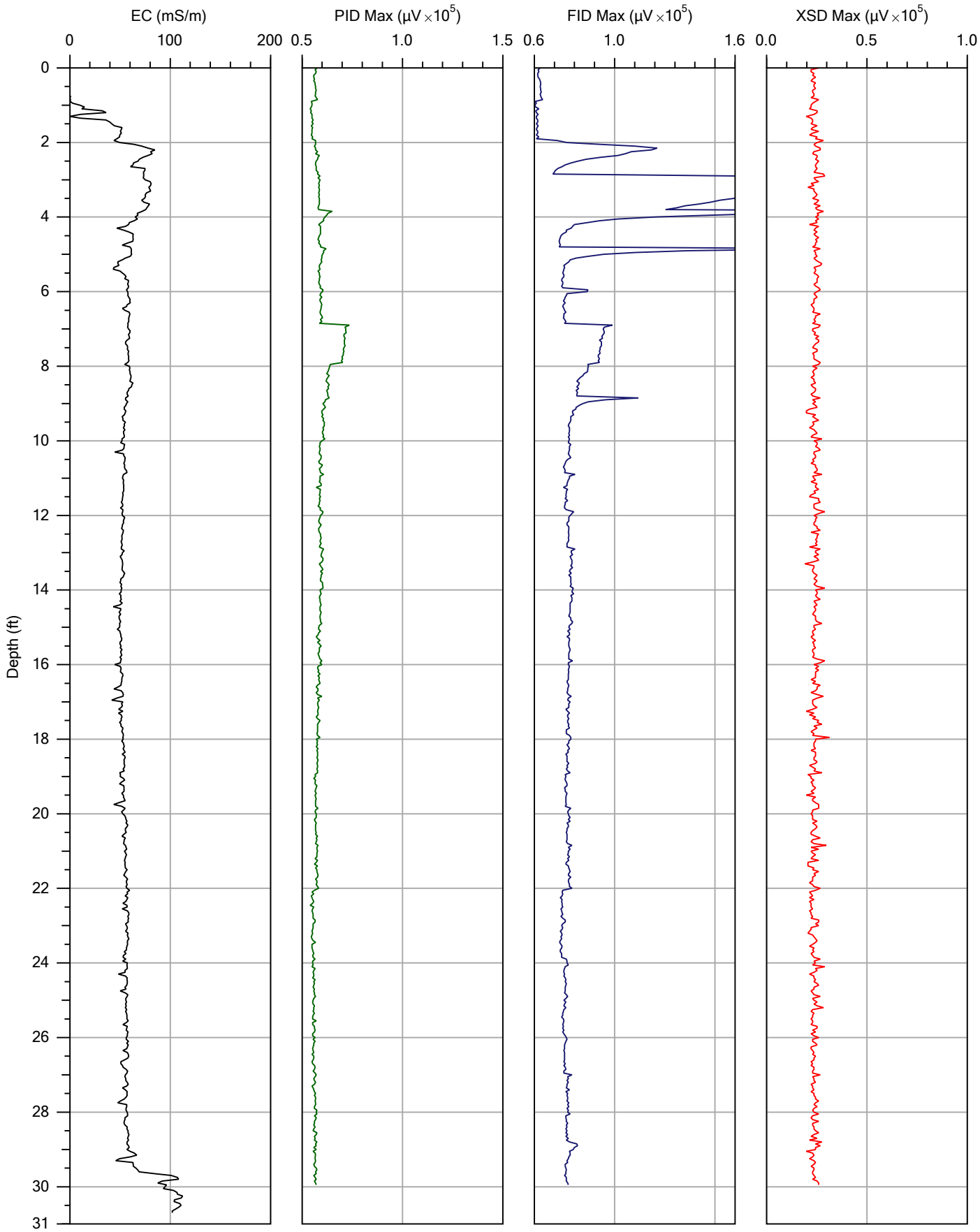
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.5	6.4	PASS
High	290.0	305.0	5.2	PASS

********** USER NOTES **********

refusal @ 29.65 feet.



			File: MIP-46.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/23/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.7	6.7	PASS
High	290.0	297.2	2.5	PASS

MIP-46.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 23 2012 16:54:48

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 29.95 ft (9.129 m)
LOG END TIME: Mon Apr 23 2012 17:37:41

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-46.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 23 2012 17:48:06

RESPONSE TEST ATTENUATION CHANGES

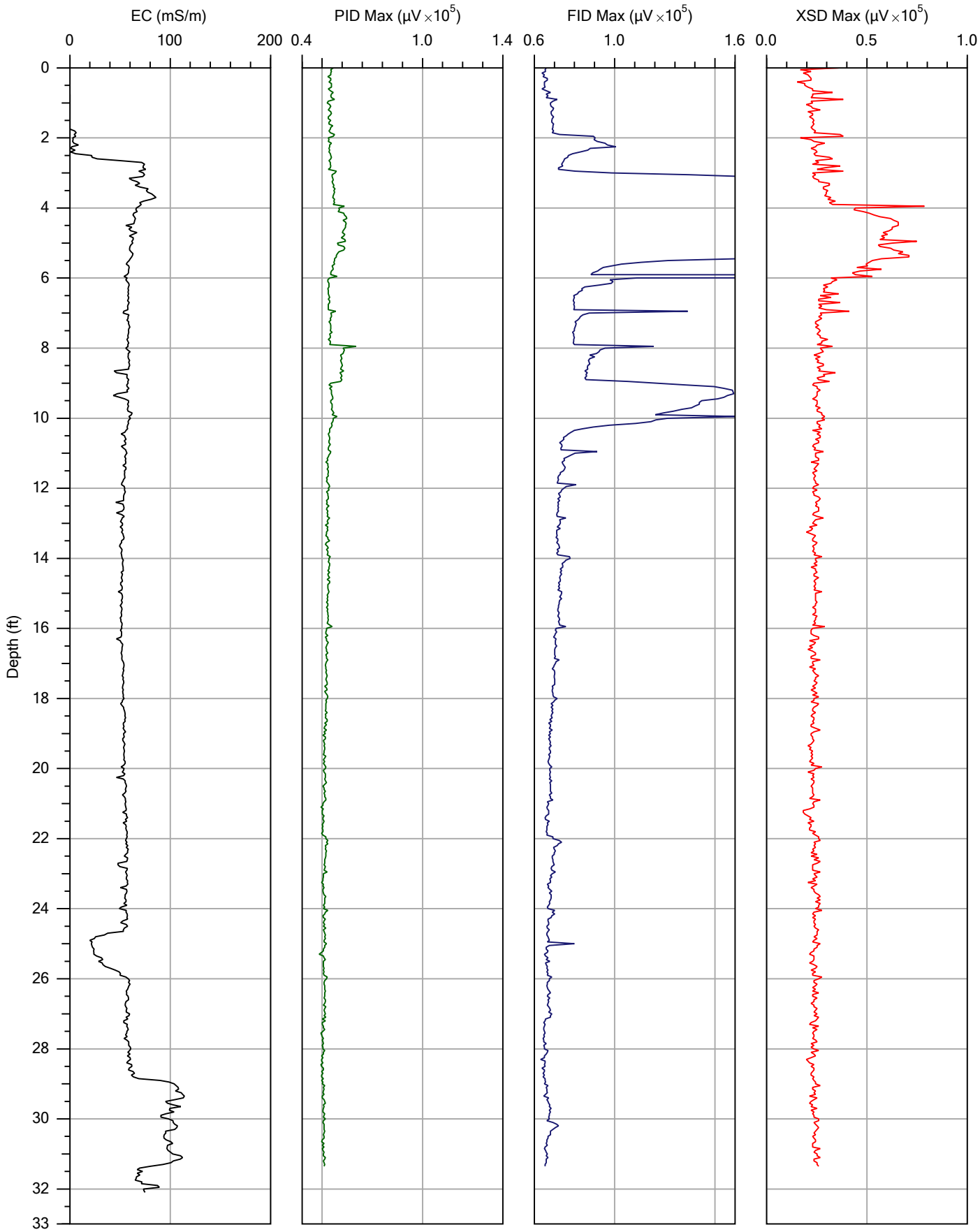
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	59.8	8.7	PASS
High	290.0	309.4	6.7	PASS

********** USER NOTES **********

refusal @ 29.95 feet.



			File: MIP-47.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/23/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	60.1	9.3	PASS
High	290.0	310.1	6.9	PASS

MIP-47.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Mon Apr 23 2012 18:05:21

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 31.35 ft (9.555 m)
LOG END TIME: Mon Apr 23 2012 19:10:27

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-47.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Apr 23 2012 19:19:36

RESPONSE TEST ATTENUATION CHANGES

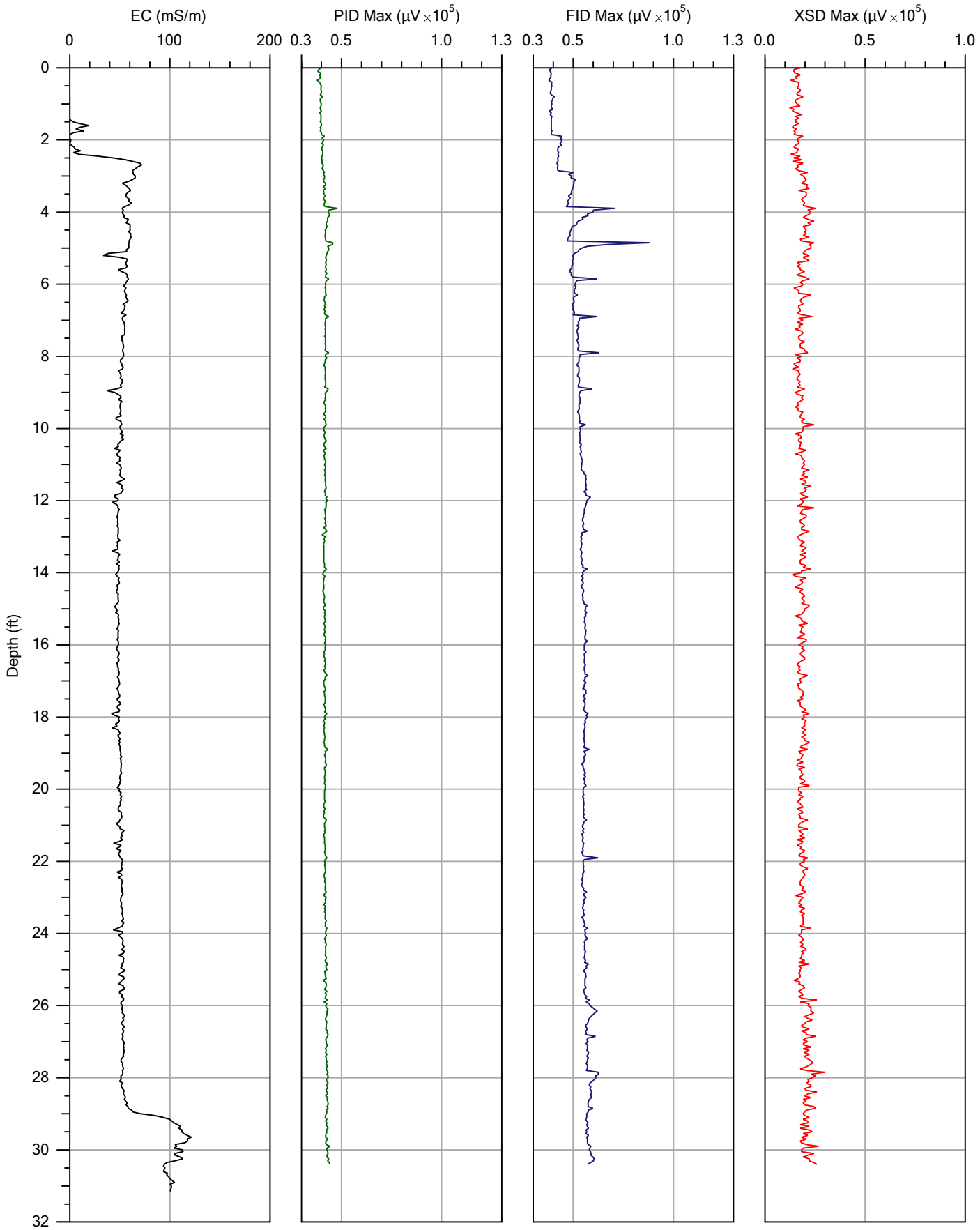
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	51.4	6.5	PASS
High	290.0	314.5	8.4	PASS

********** USER NOTES **********

refusal @ 31.35 feet.



			File: MIP-48.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/24/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.7	3.1	PASS
High	290.0	286.7	1.1	PASS

MIP-48.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-48.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 24 2012 08:18:50

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 24 2012 08:31:53

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.40 ft (9.266 m)
LOG END TIME: Tue Apr 24 2012 09:18:32

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-48.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min

RESPONSE TEST START TIME: Tue Apr 24 2012 09:29:08

RESPONSE TEST ATTENUATION CHANGES

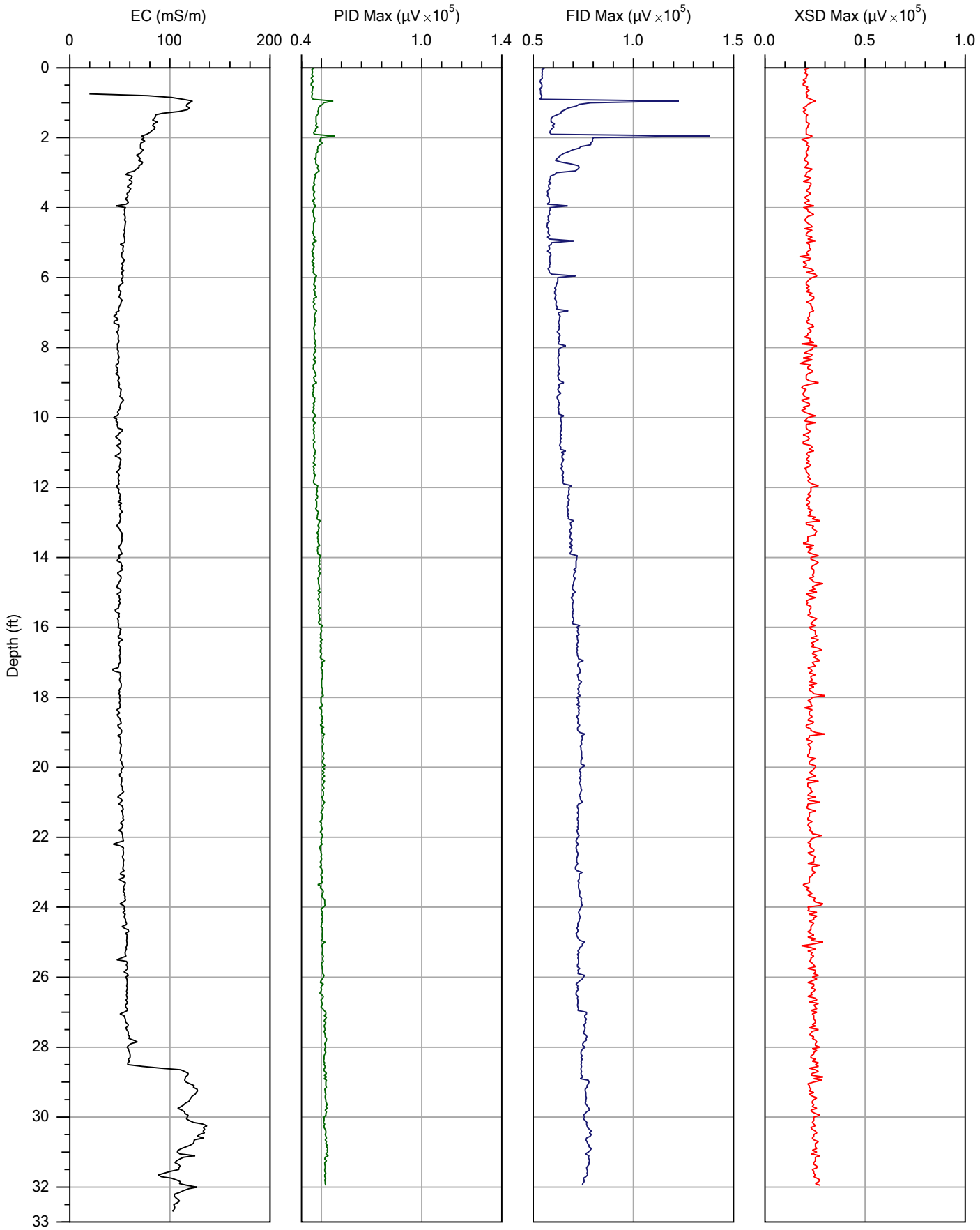
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.1	3.8	PASS
High	290.0	290.3	0.1	PASS

********** USER NOTES **********

refusal @ 31 feet.



			File: MIP-49.MIP
Company: Matrix	Operator: Mike Jenson		Date: 4/24/2012
Project ID: 047-MNDS-12	Client: Golder		Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.8	3.4	PASS
High	290.0	294.7	1.6	PASS

MIP-49.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 24 2012 09:45:23

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 31.95 ft (9.738 m)
LOG END TIME: Tue Apr 24 2012 10:32:24

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-49.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 24 2012 10:52:46

RESPONSE TEST ATTENUATION CHANGES

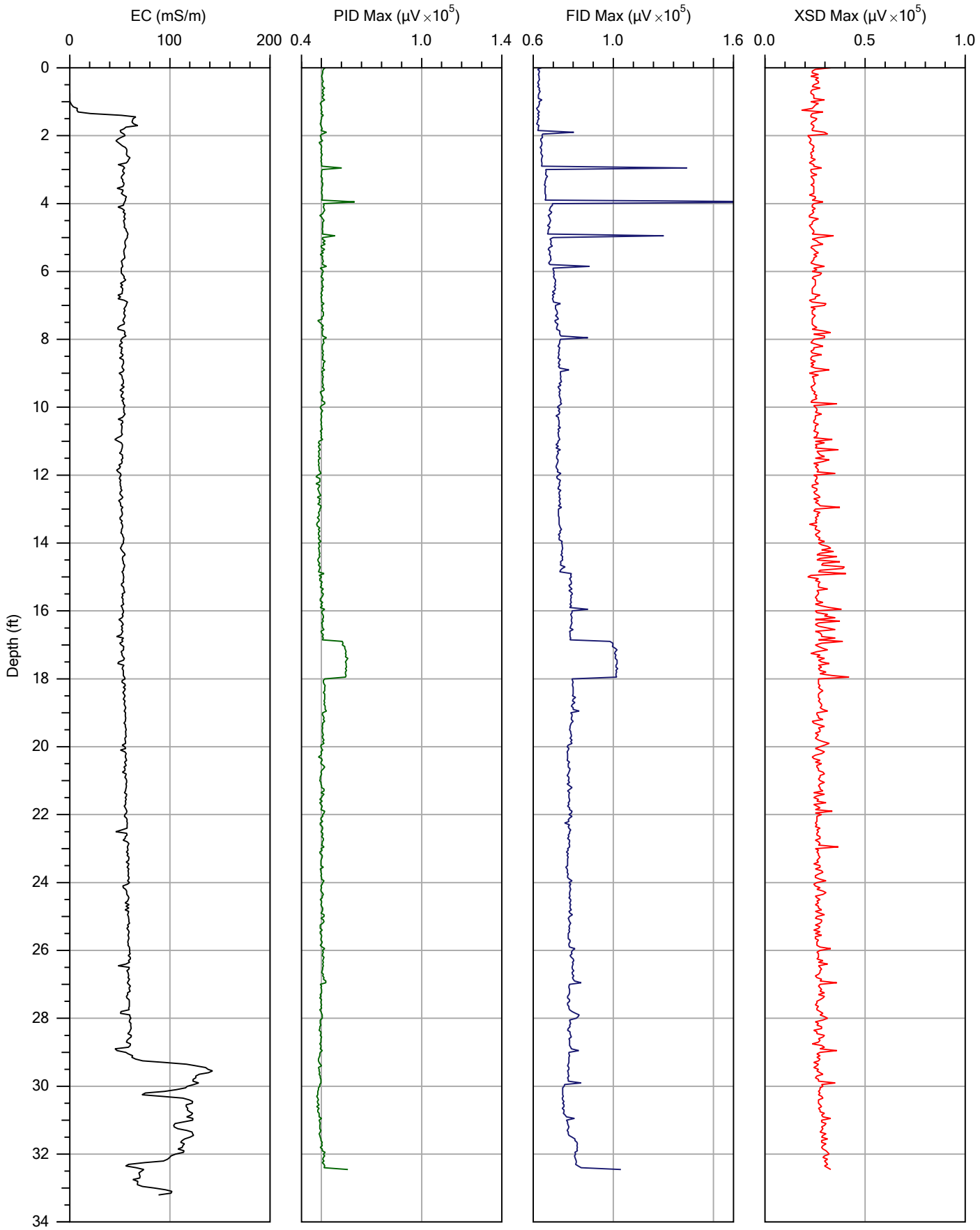
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.1	5.6	PASS
High	290.0	294.4	1.5	PASS

********** USER NOTES **********

refusal @ 31.95 feet.



			File: MIP-50.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/24/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	57.9	5.4	PASS
High	290.0	300.4	3.6	PASS

MIP-50.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 40 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 24 2012 11:05:40

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 32.45 ft (9.891 m)
LOG END TIME: Tue Apr 24 2012 11:50:01

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-50.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 24 2012 12:01:01

RESPONSE TEST ATTENUATION CHANGES

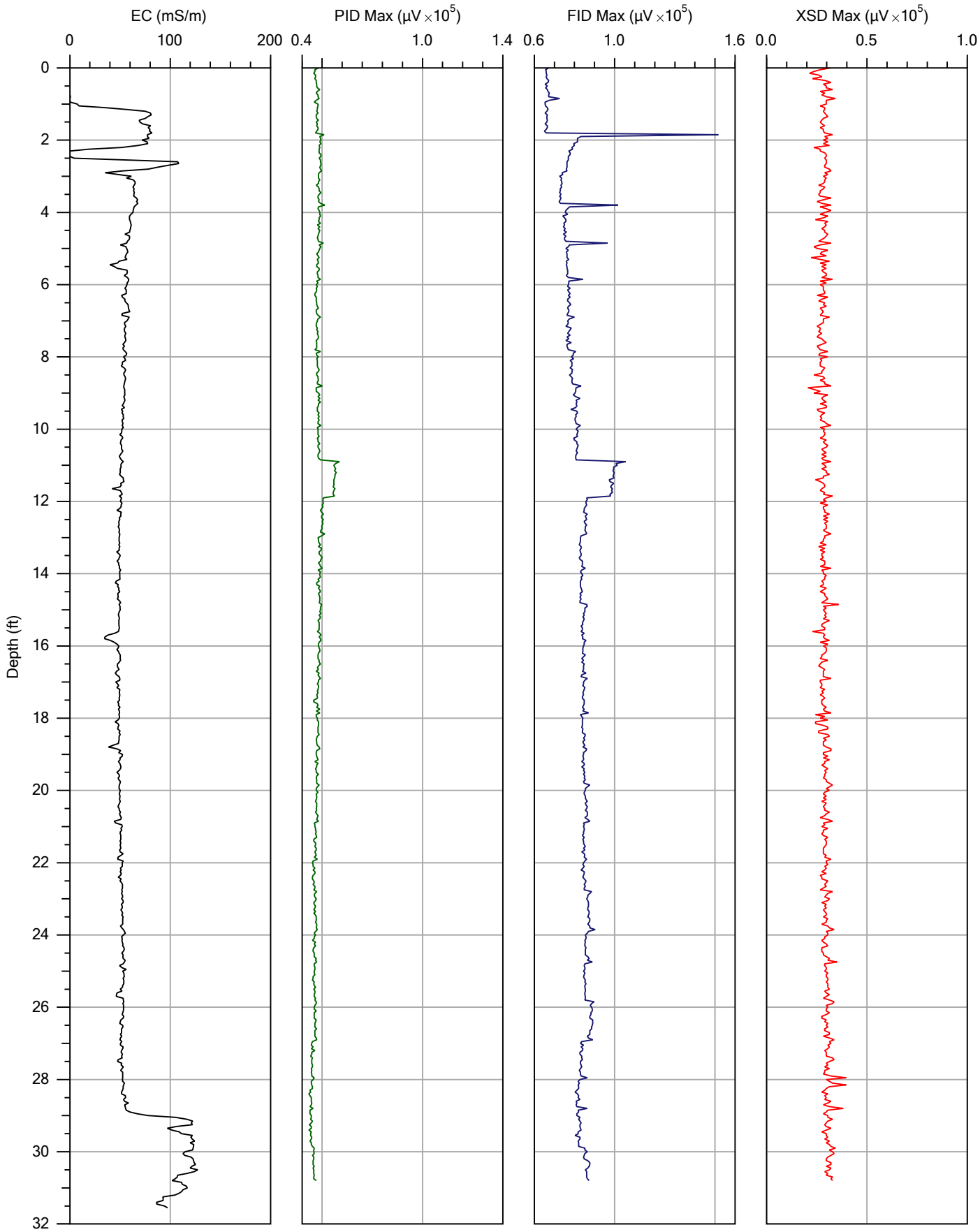
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	58.6	6.6	PASS
High	290.0	302.0	4.1	PASS

********** USER NOTES **********

refusal @ ~33 feet.



			File: MIP-51.MIP
Company: Matrix		Operator: Mike Jenson	Date: 4/24/2012
Project ID: 047-MNDS-12		Client: Golder	Location:

Pre-Log EC Load Tests

Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	55.9	1.6	PASS
High	290.0	288.4	0.5	PASS

MIP-51.zip

SITE INFORMATION -- DIRECT IMAGE MIP PROBE

Geoprobe DI Acquisition Software for Windows
Version: 1.2 Build: 11349

COMPANY: Matrix
OPERATOR: Mike Jenson
PROJECT ID: 047-MNDS-12
CLIENT: Golder
UNITS: ENGLISH
PROBE AND ARRAY: MP6520 MIP Probe with Top Dipole
100 INCH STRING POT USED
ROD LENGTH: 4 feet

MIP PRE-LOG RESPONSE TEST BYPASSED

TRIP TIME: 60 sec
DETECTOR NAME: PID FID XSD (none)
LOG START TIME: Tue Apr 24 2012 12:22:09

ATTENUATION CHANGES

DEPTH (ft)	DEPTH (m)	DET1	DET2	DET3	DET4
0.00	0.000	4	4	10	1

LOG END DEPTH: 30.80 ft (9.388 m)
LOG END TIME: Tue Apr 24 2012 12:55:48

LATITUDE: 0.000000000
LONGITUDE: 0.000000000
ELEVATION: 0.000 METERS 0.00 FEET

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-51.post.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Apr 24 2012 13:27:55

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

Post-Log EC Load Tests

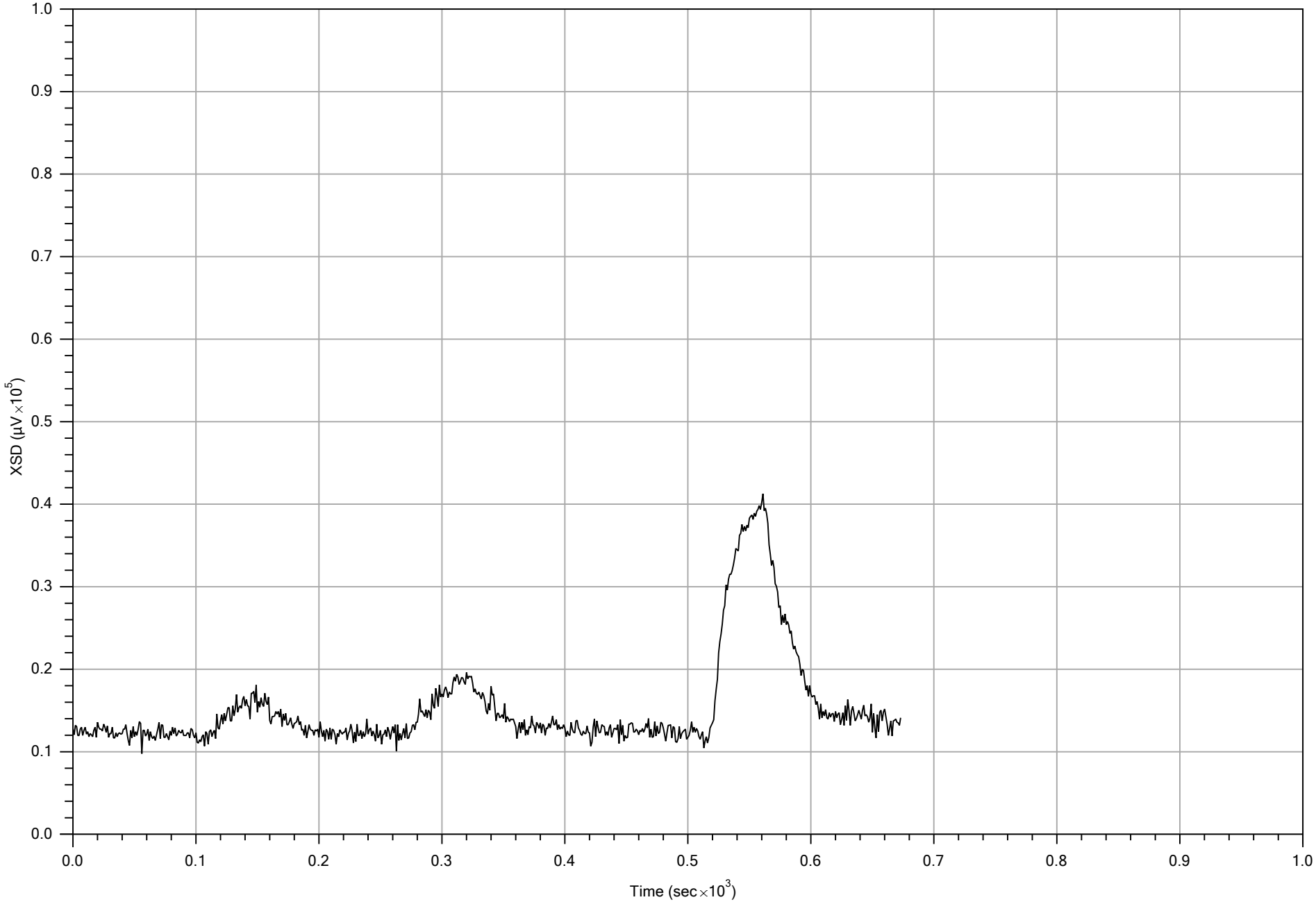
Test	Target (mS/m)	Actual (mS/m)	% Diff	P/F
Low	55.0	56.1	2.0	PASS
High	290.0	288.5	0.5	PASS

********** USER NOTES **********

refusal @ 30.8 feet.

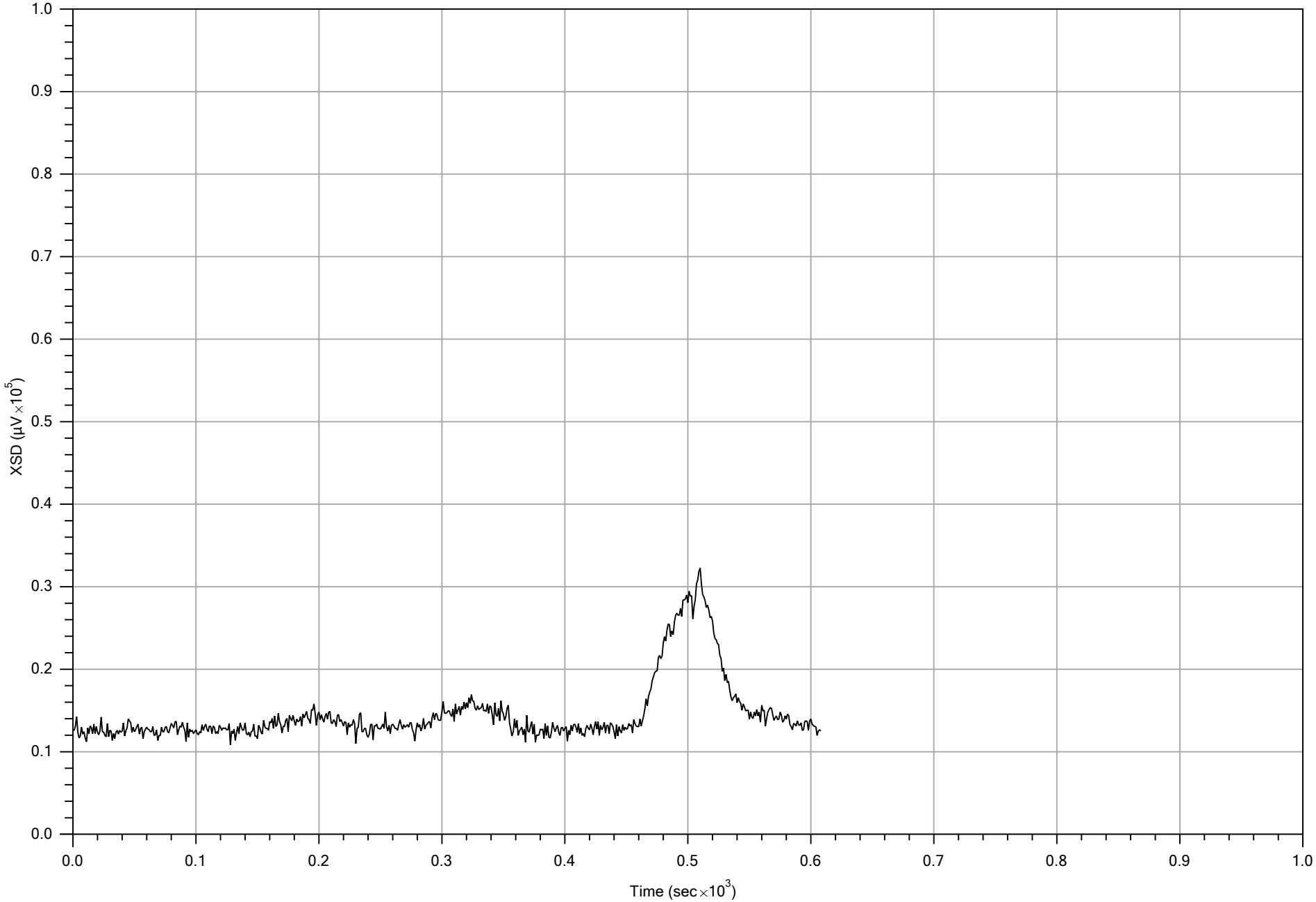
MIP QC

With detectors @ 100,000 µV



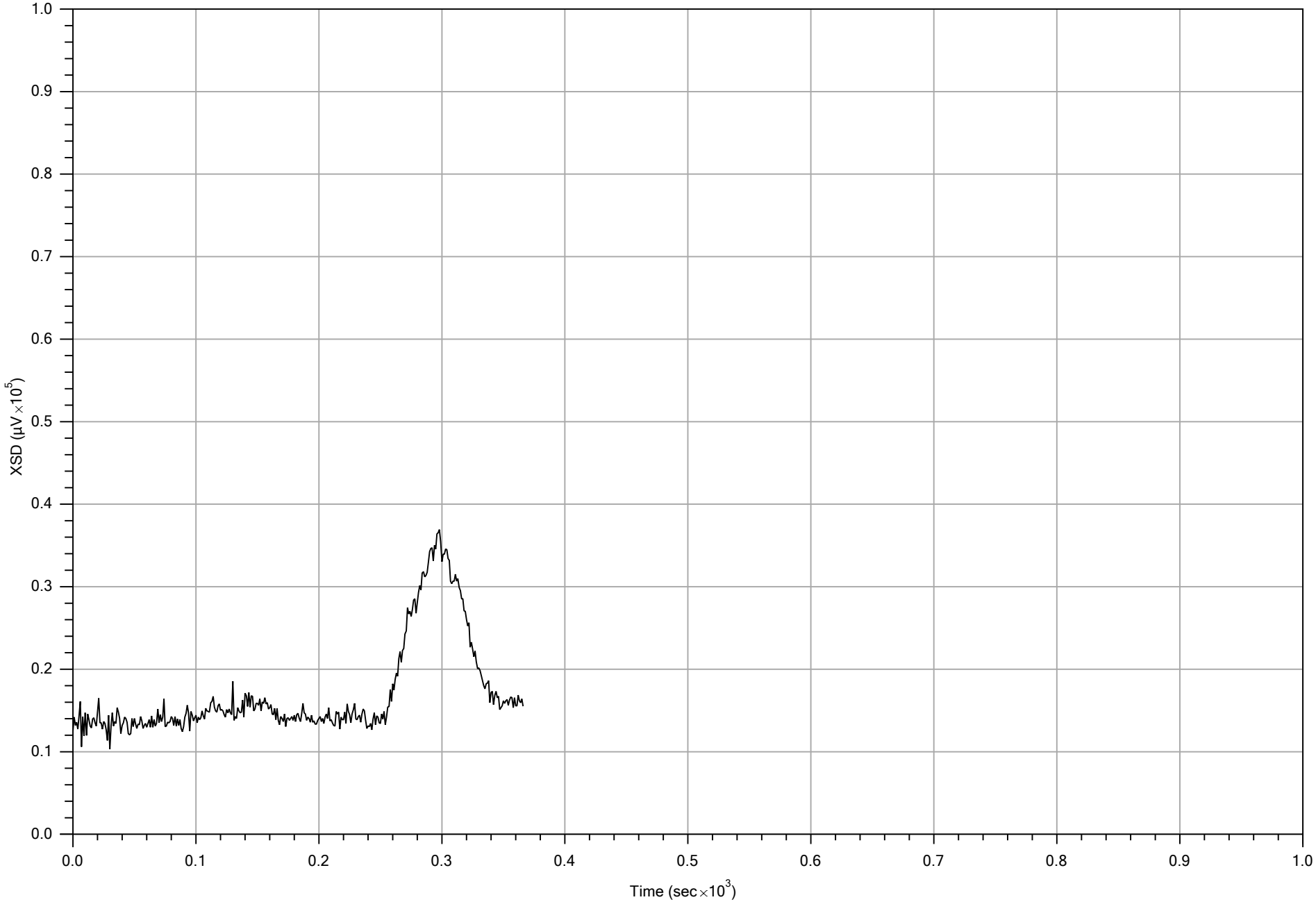
PRE-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-01.PRE.TIM	Date: 4/16/2012
		Detector: XSD	Concentration: 0.5, 1, 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 41276 µV



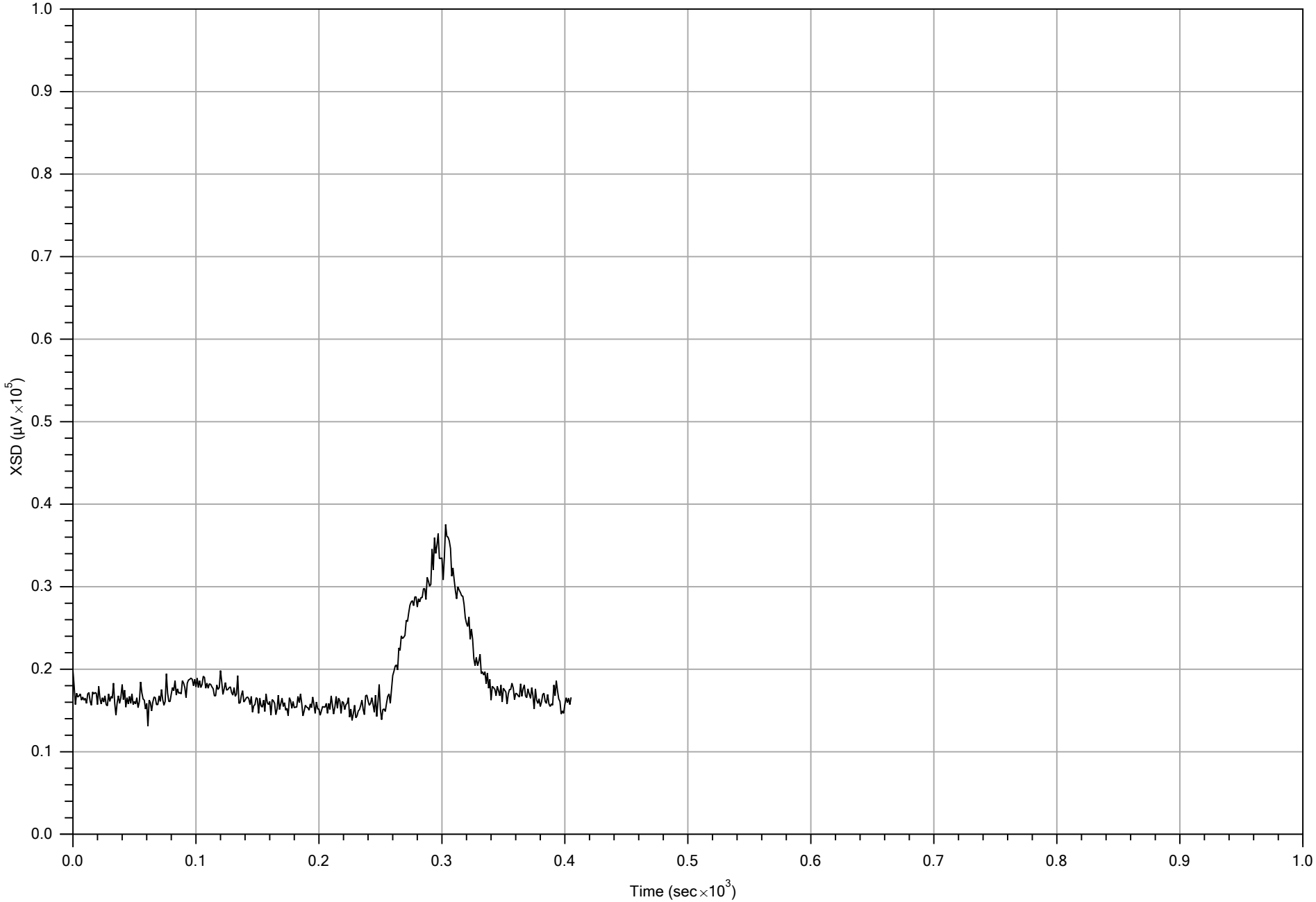
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-01.POST.TIM	Date: 4/16/2012
		Detector: XSD	Concentration: 0.5, 1, 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 32273 µV



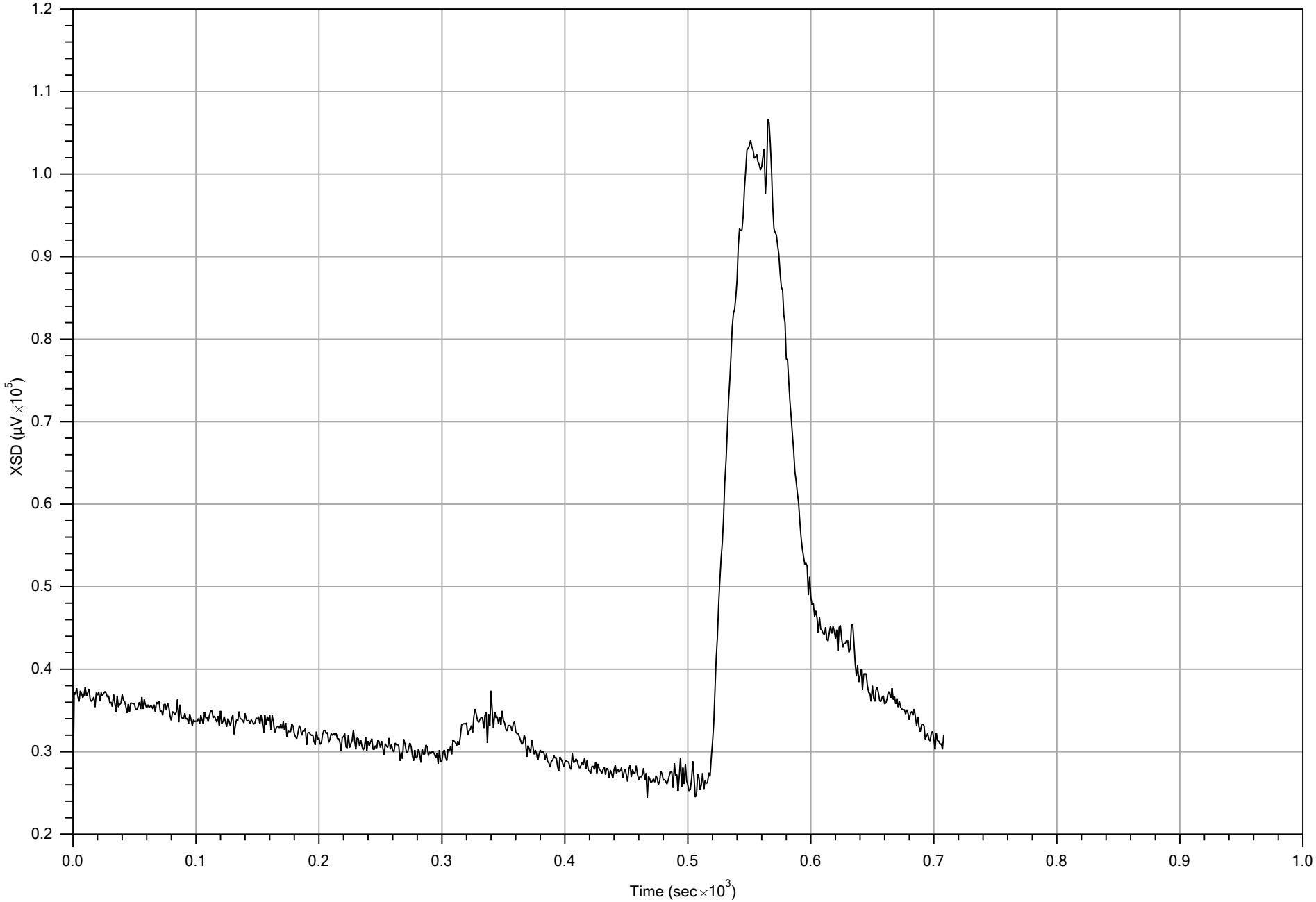
PRE-LOG RESPONSE

File: MIP-02.PRE.TIM			Date: 4/16/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 36927 µV



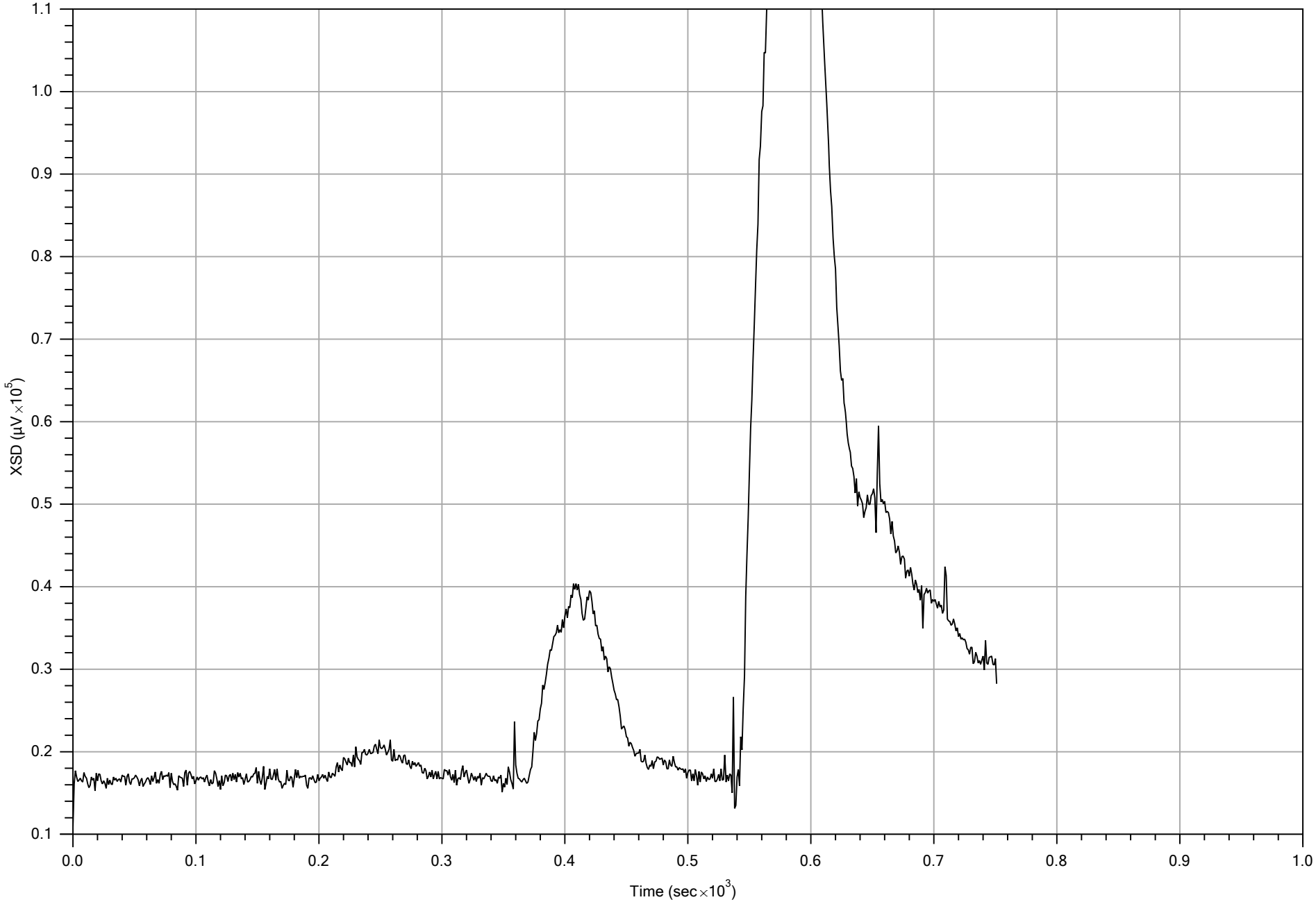
POST-LOG RESPONSE

File: MIP-02.POST.TIM			Date: 4/16/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 37538 µV



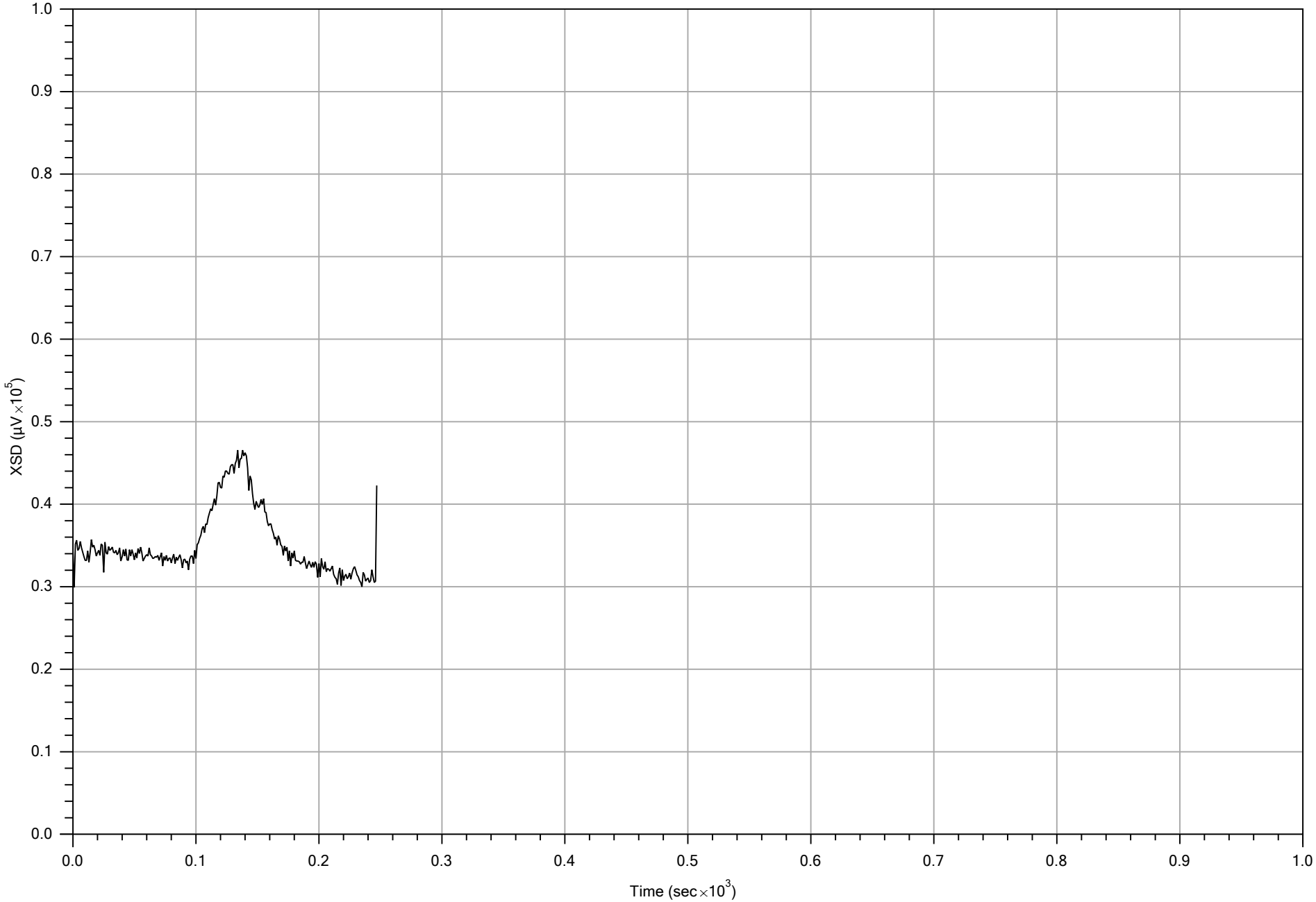
POST-LOG RESPONSE

		File: MIP-03.POST.TIM	Date: 4/16/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 50 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 106586 µV



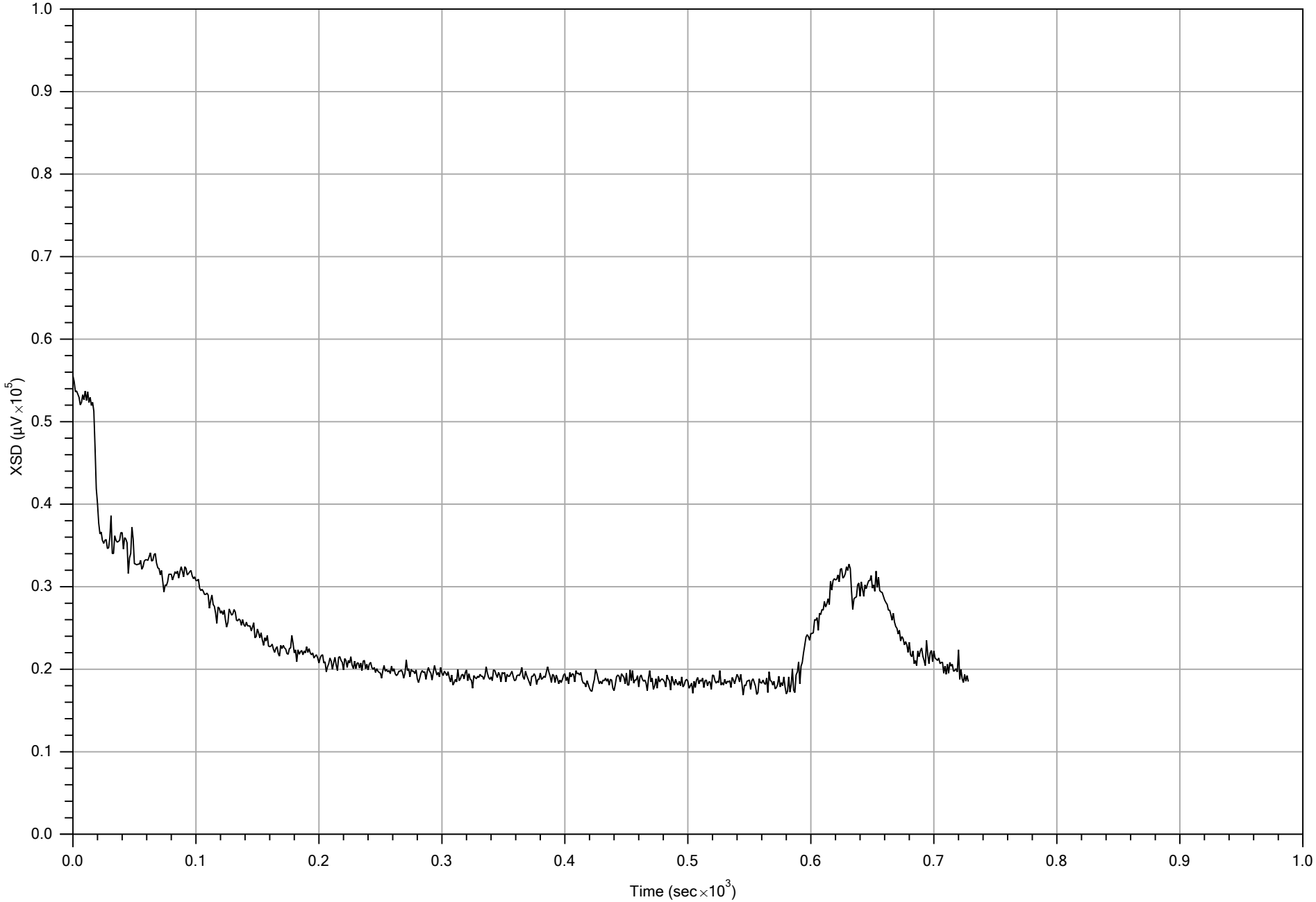
PRE-LOG RESPONSE

File: MIP-04.PRE.TIM			Date: 4/17/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 152821 µV



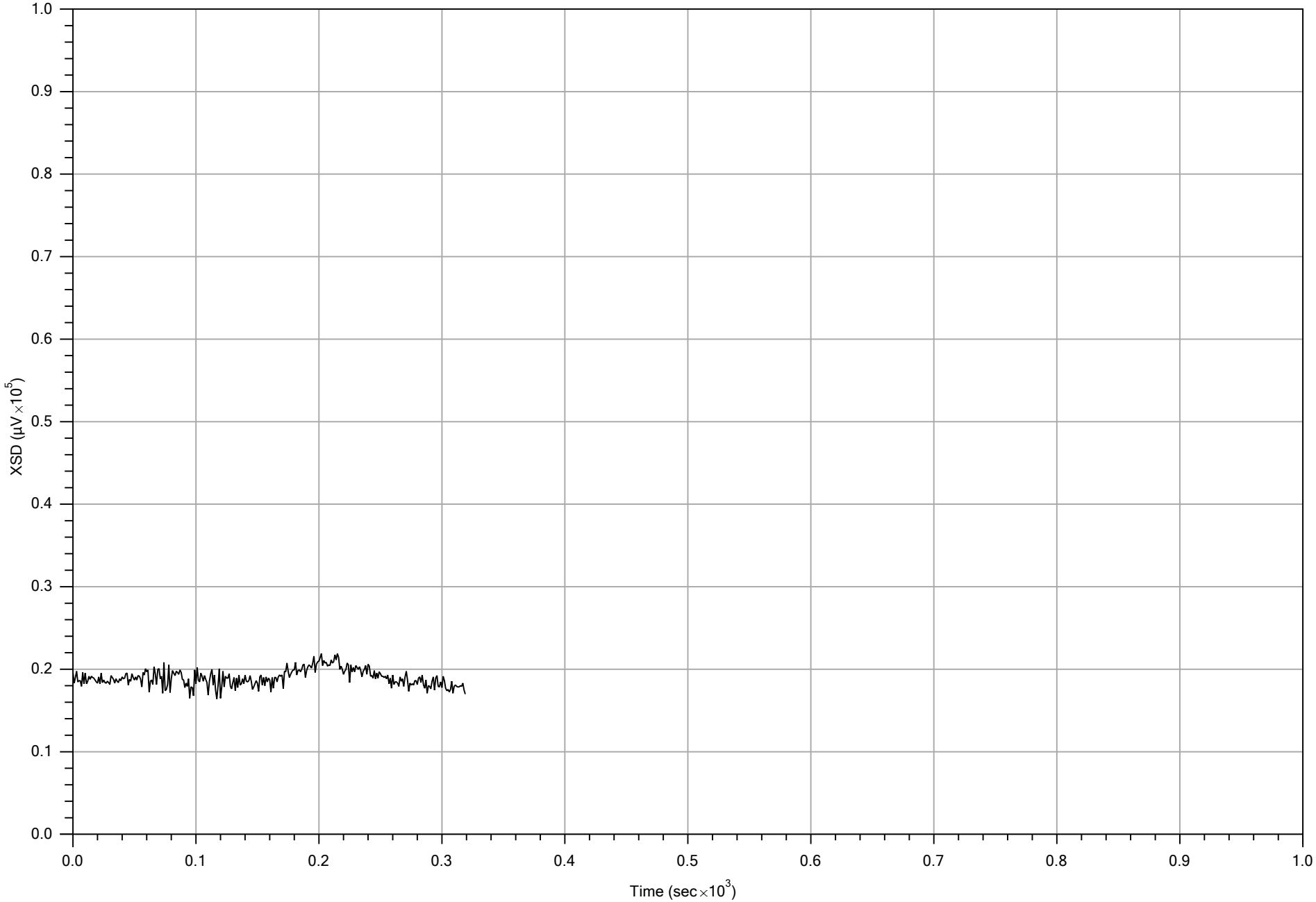
POST-LOG RESPONSE

File: MIP-04.POST.TIM			Date: 4/17/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 46541 µV



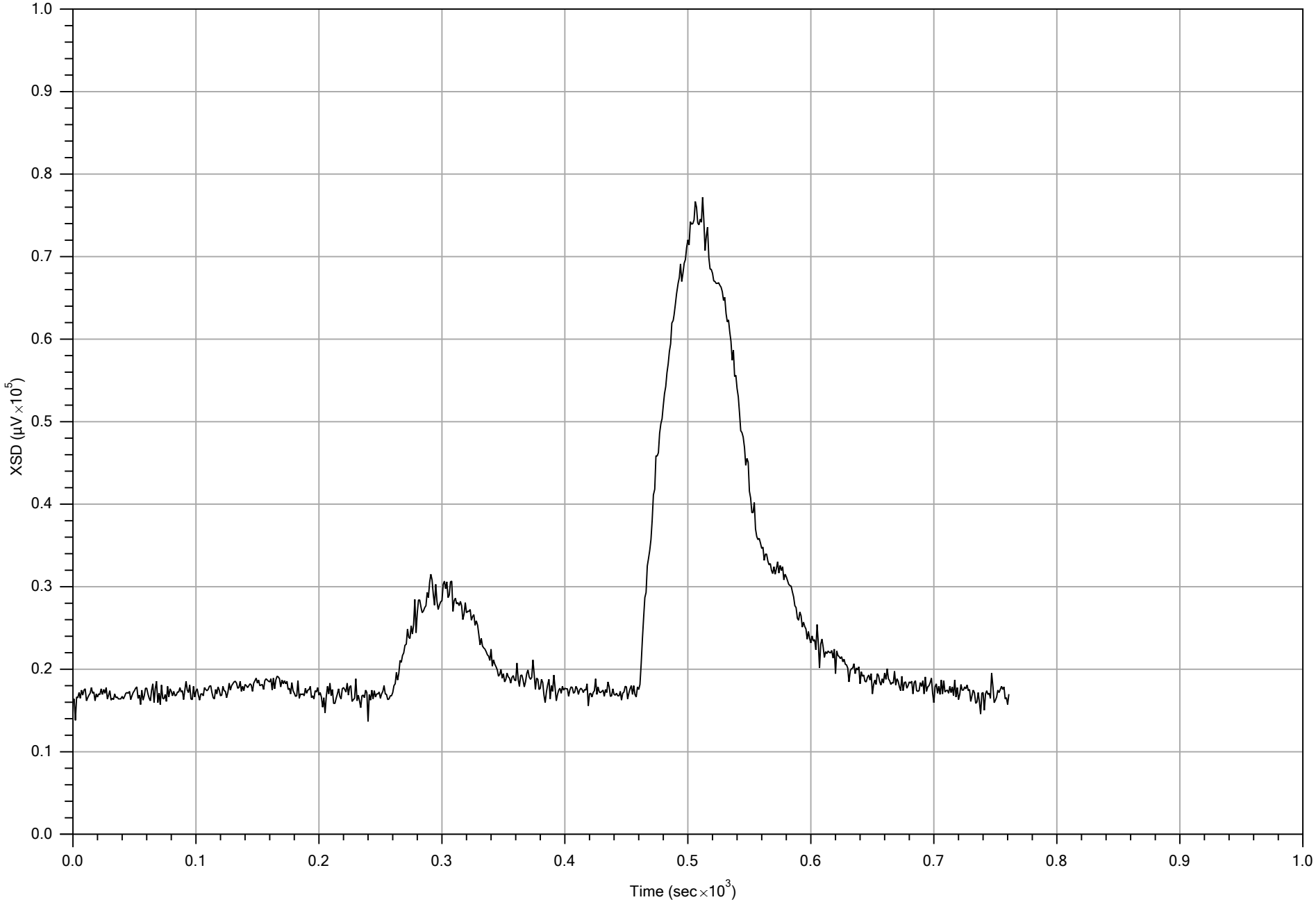
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-05.POST.TIM	Date: 4/17/2012
		Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 55544 µV



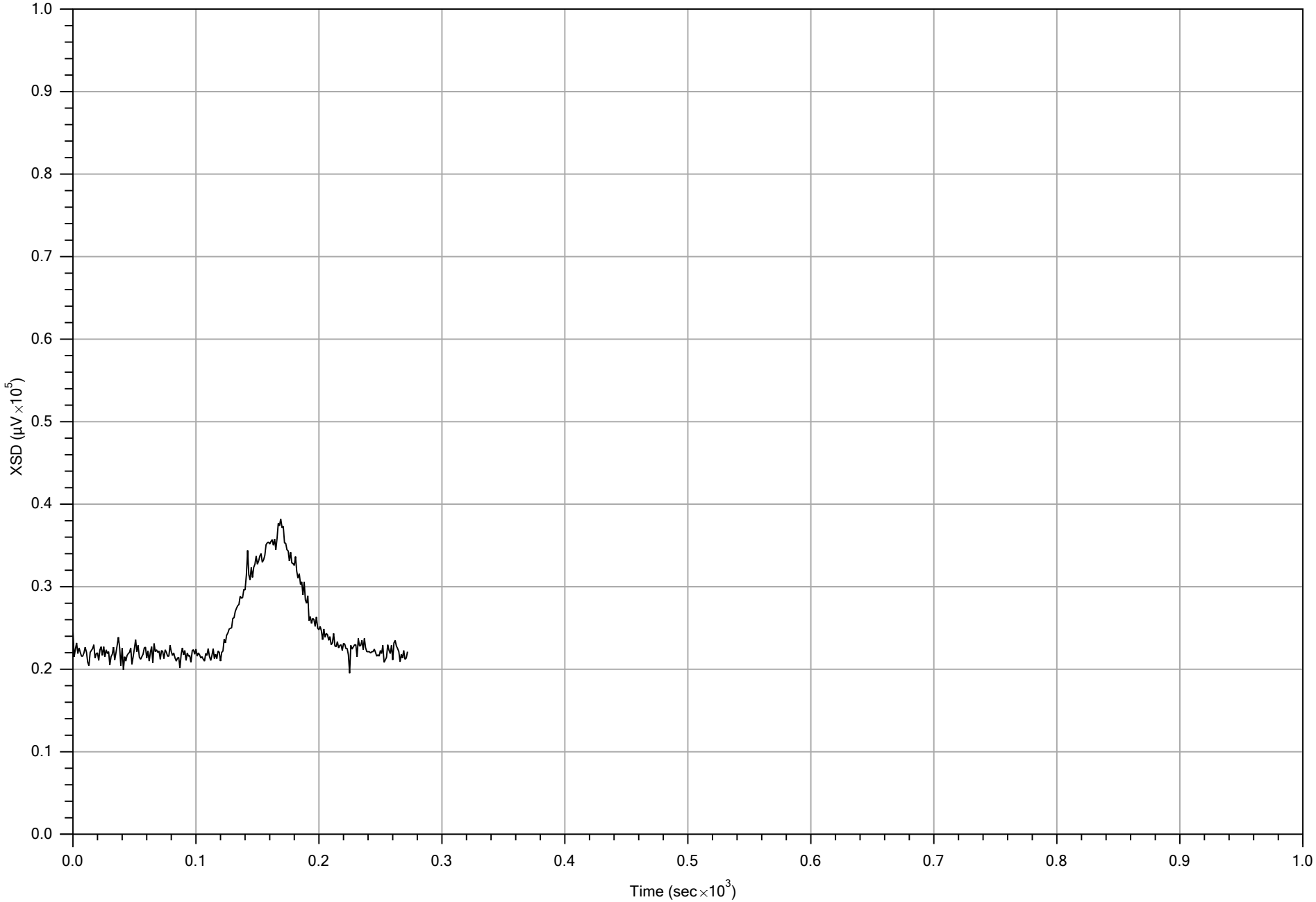
PRE-LOG RESPONSE

File: MIP-06.PRE.TIM			Date: 4/17/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 21897 µV



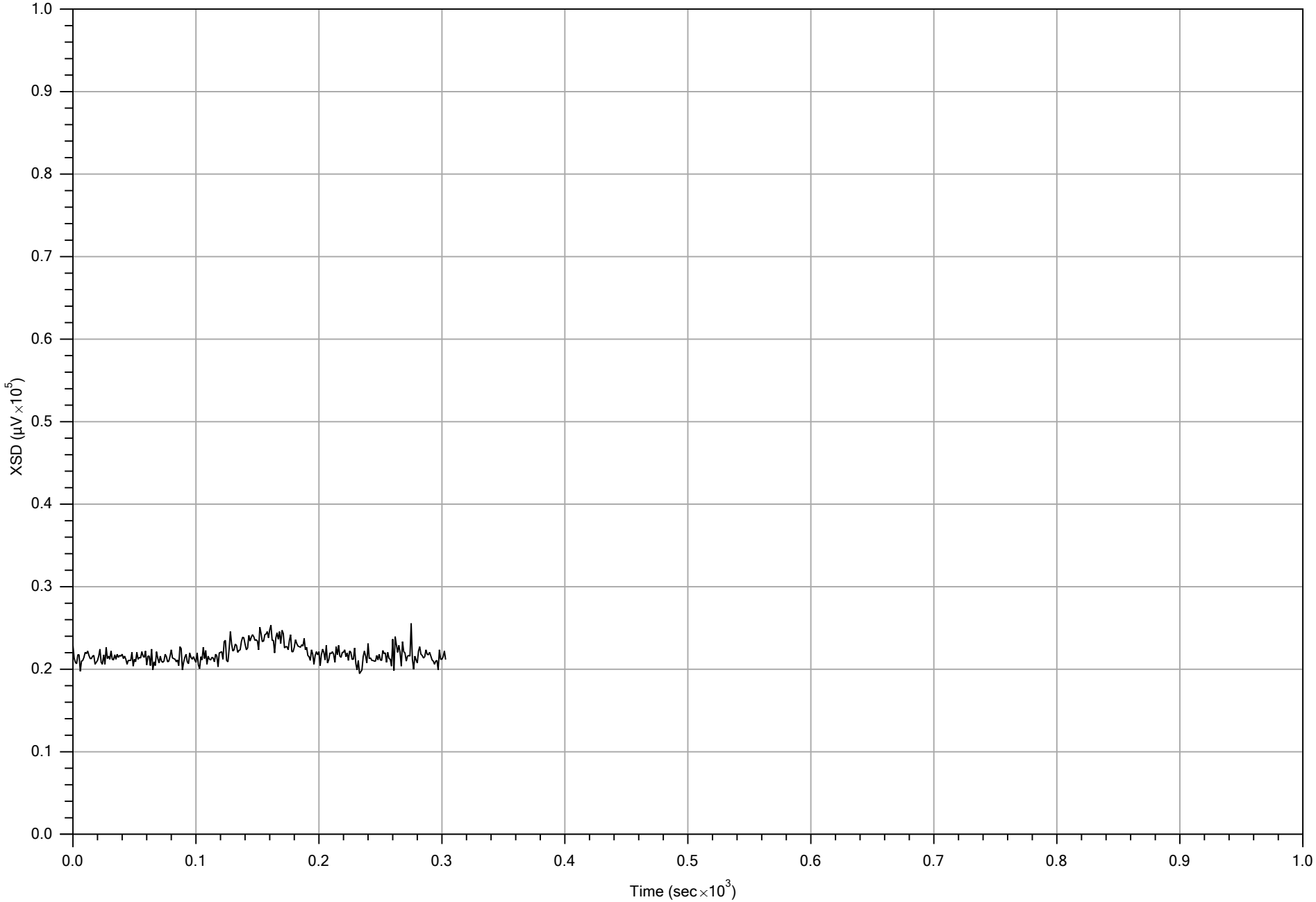
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-06.POST.TIM	Date: 4/17/2012
Project ID: 047-MNDS-12	Client: Golder	Detector: XSD	Concentration: 0.5, 5, 25 ppm
		Compound: TCE	Peak Response: 77212 µV



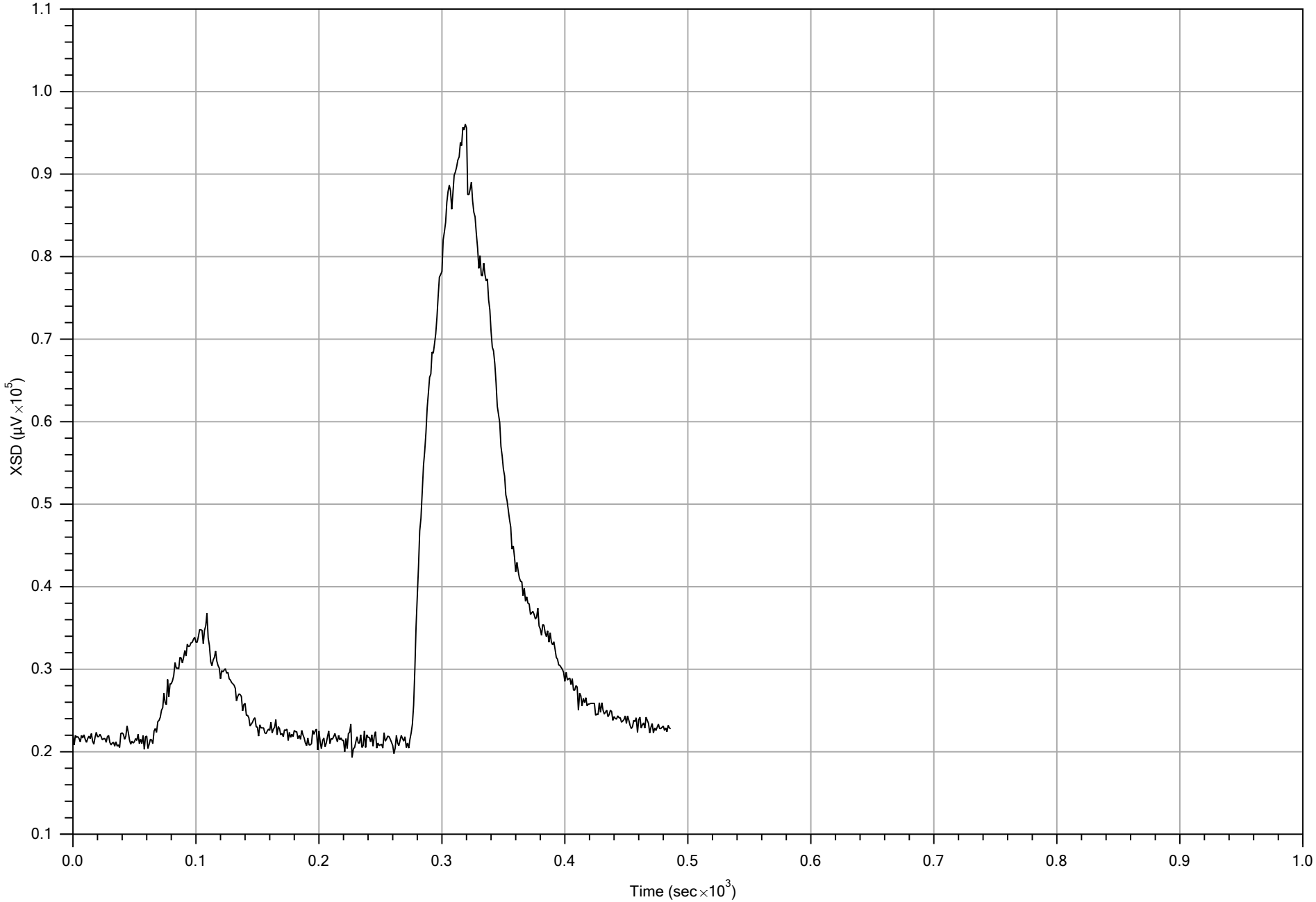
POST-LOG RESPONSE

File: MIP-07.POST.TIM			Date: 4/17/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 38224 µV



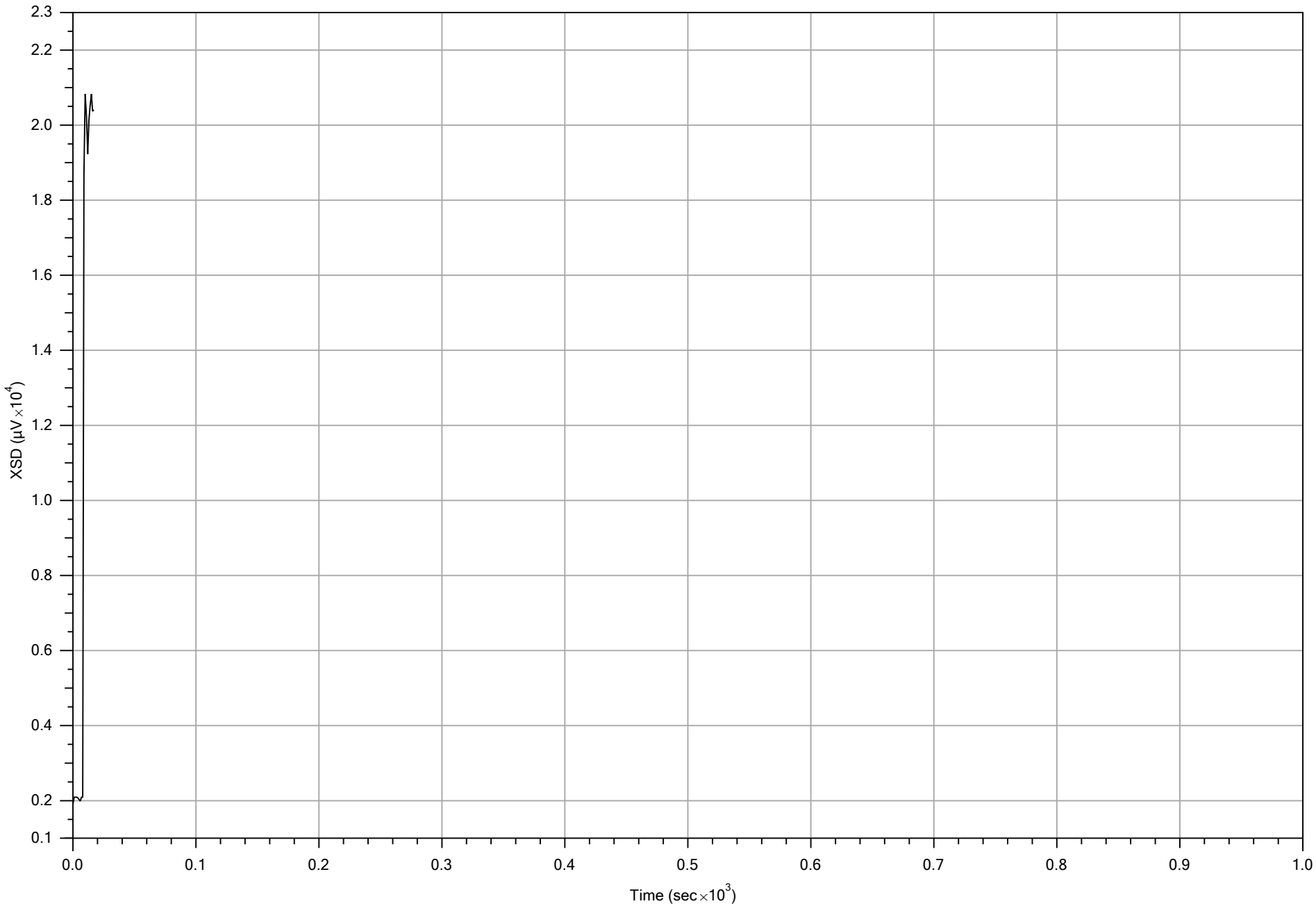
PRE-LOG RESPONSE

File: MIP-08.PRE.TIM			Date: 4/17/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 25559 µV



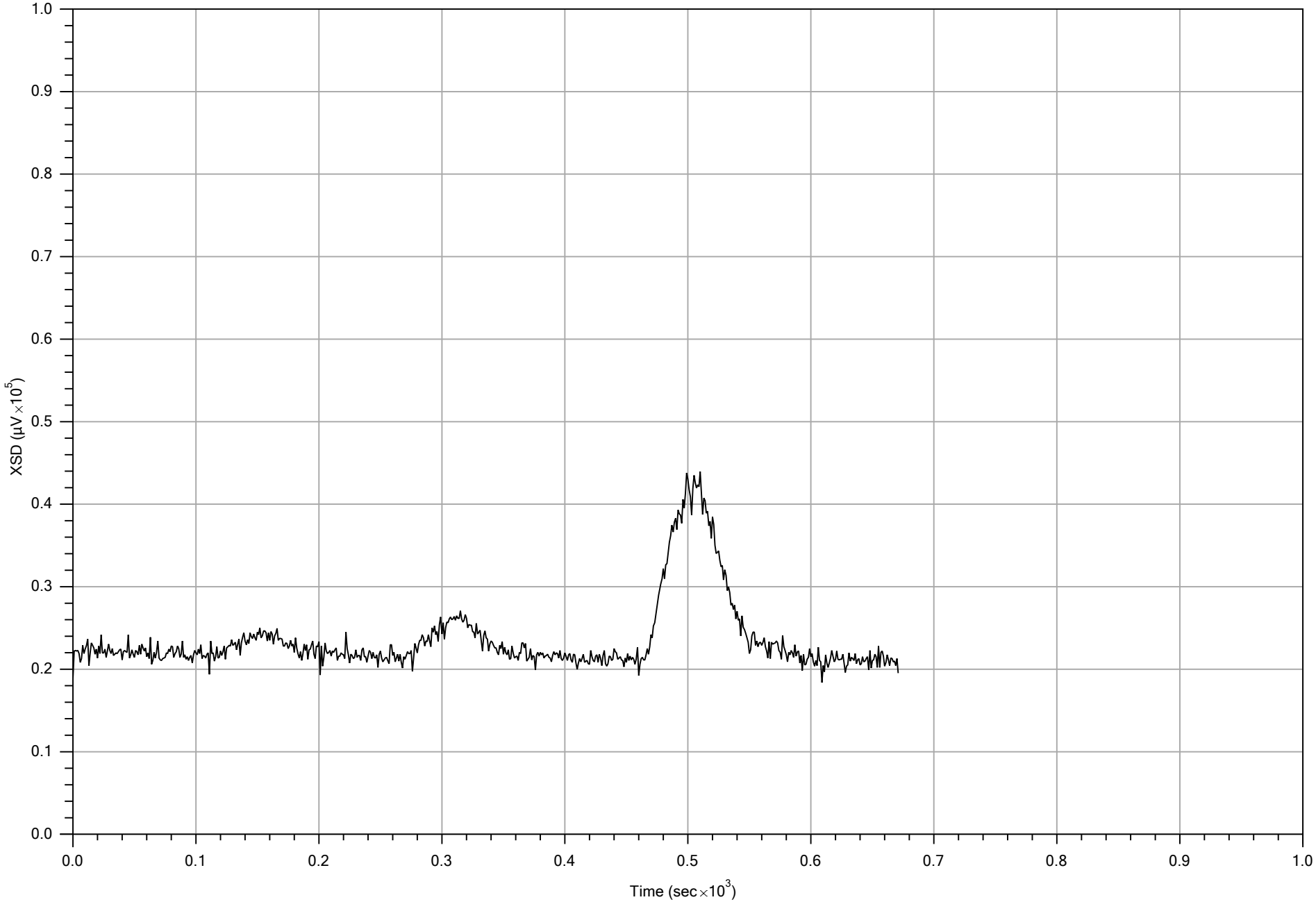
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-08.POST.TIM	Date: 4/17/2012
		Detector: XSD	Concentration: 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 96057 µV



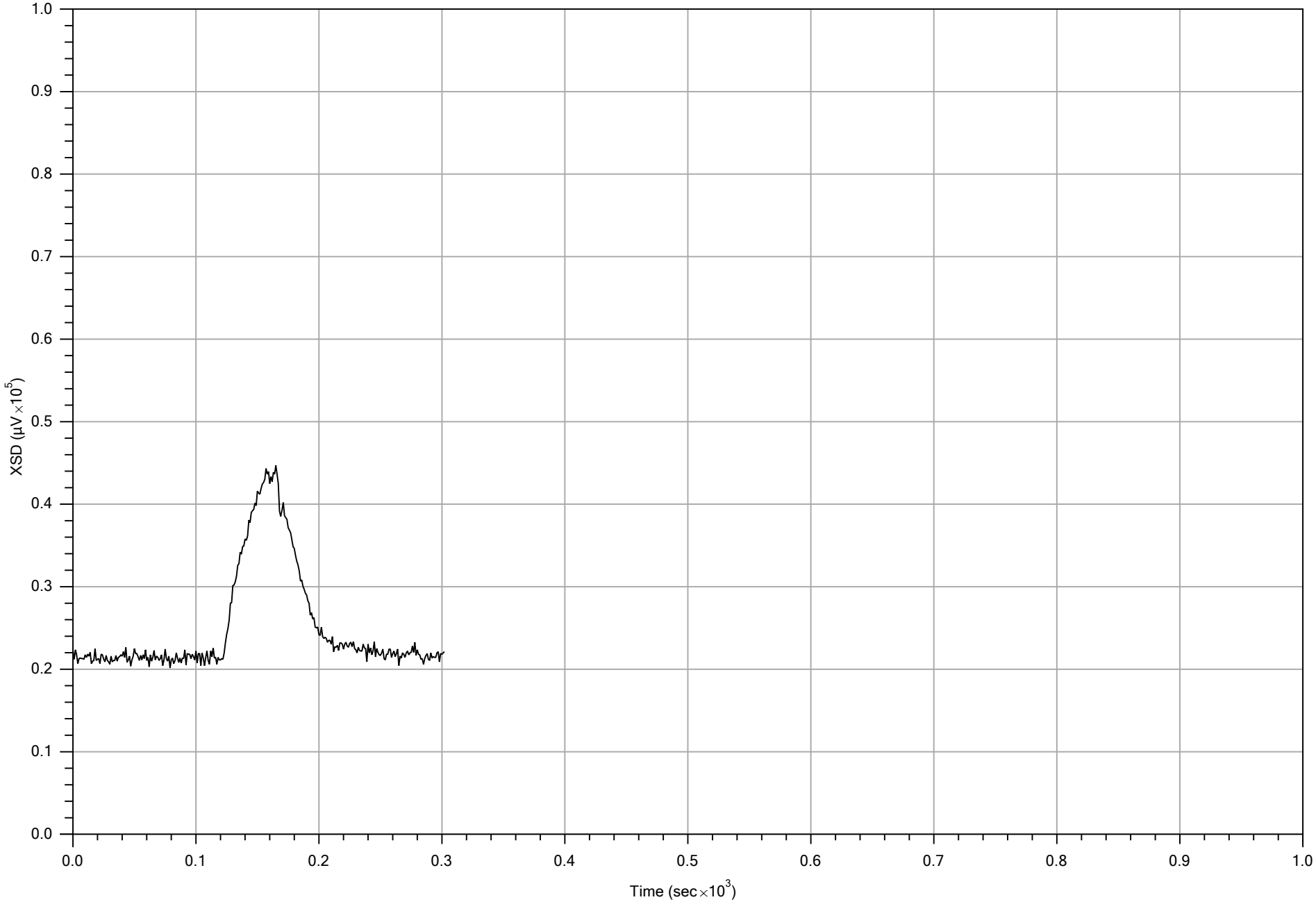
PRE-LOG RESPONSE

File: MIP-09.PRE.TIM			Date: 4/17/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 1, 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 20829 µV



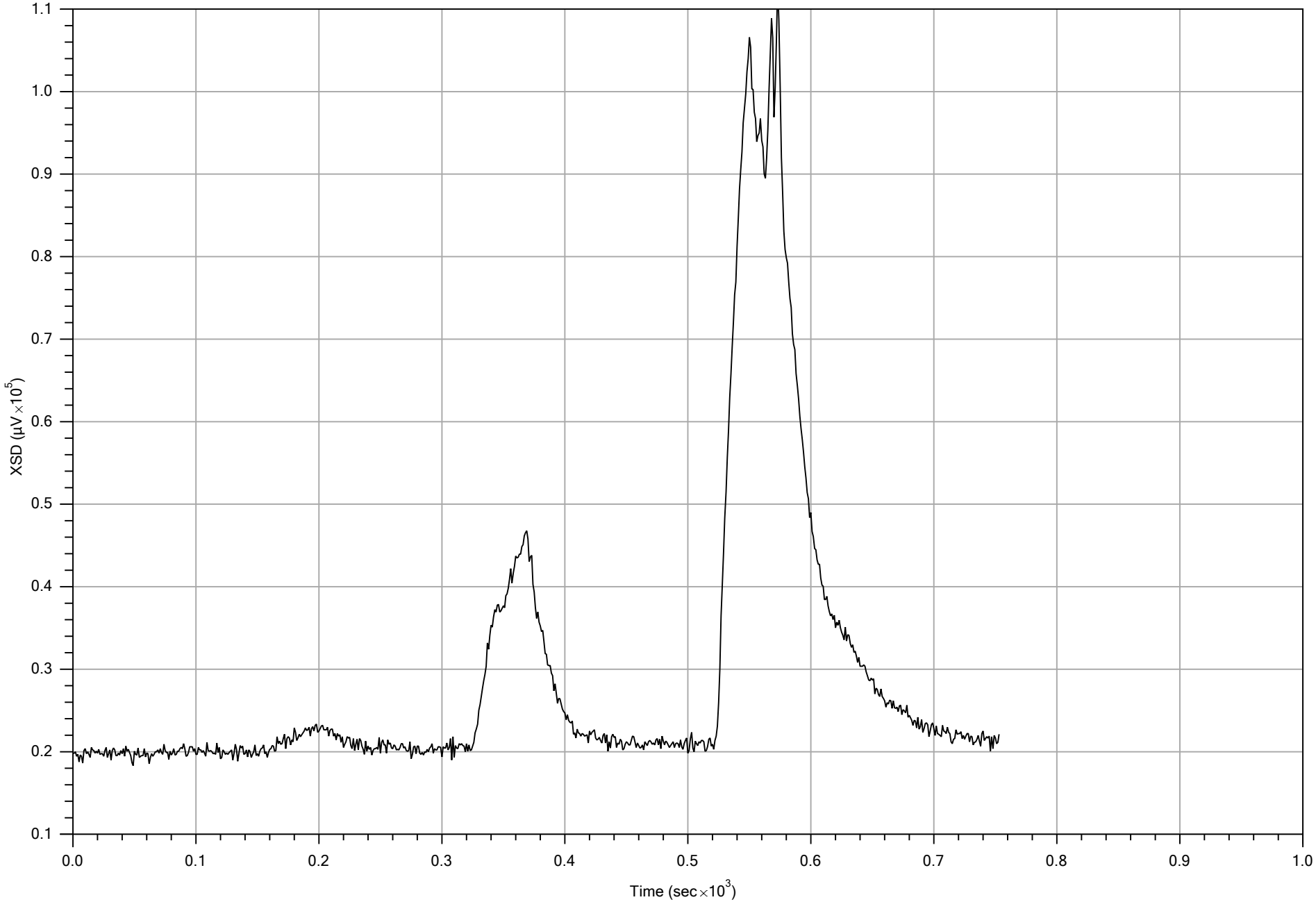
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-09.POST.TIM	Date: 4/17/2012
		Detector: XSD	Concentration: 0.5, 1, 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 43947 µV



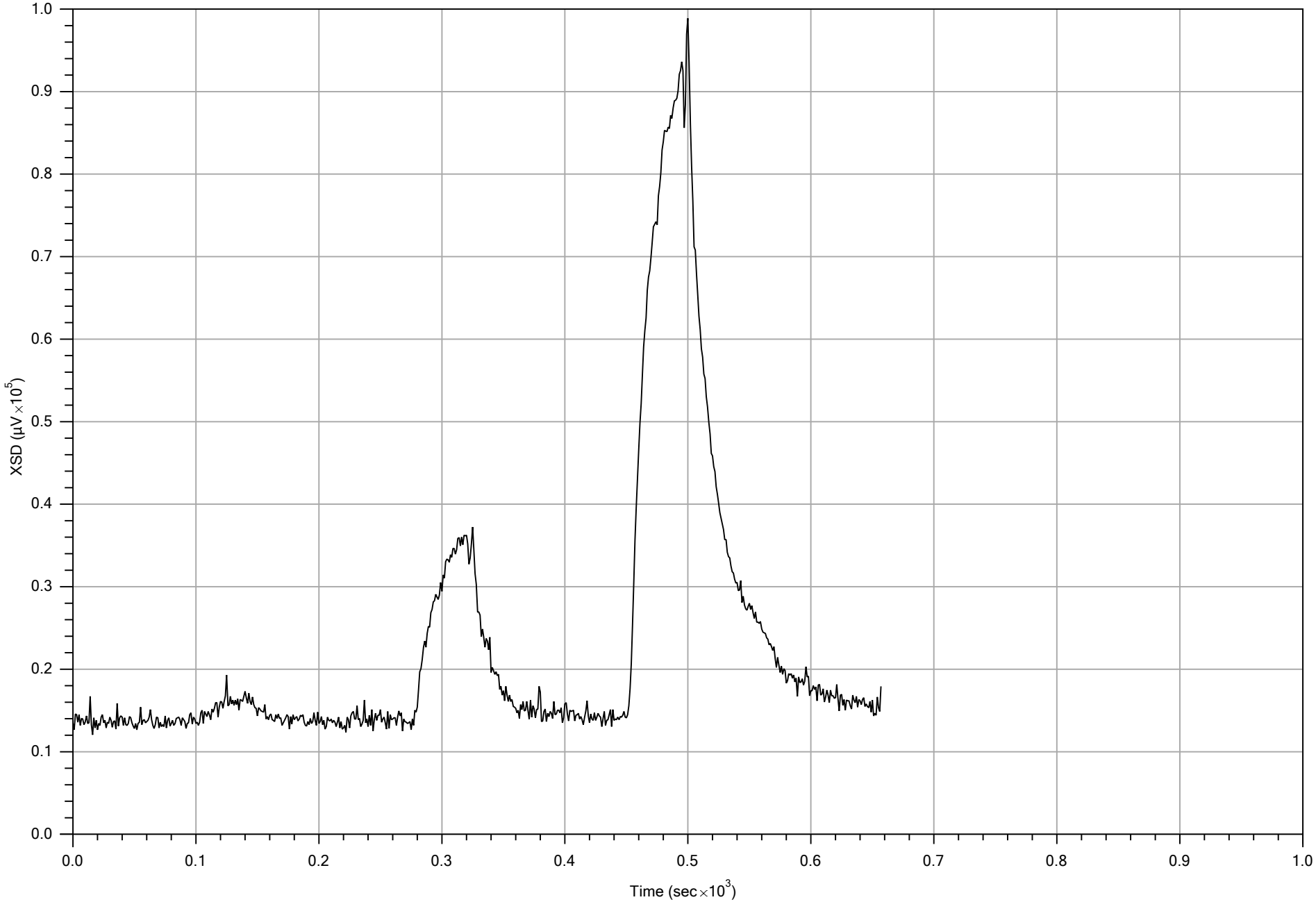
POST-LOG RESPONSE

File: MIP-10.POST.TIM			Date: 4/17/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 44710 µV



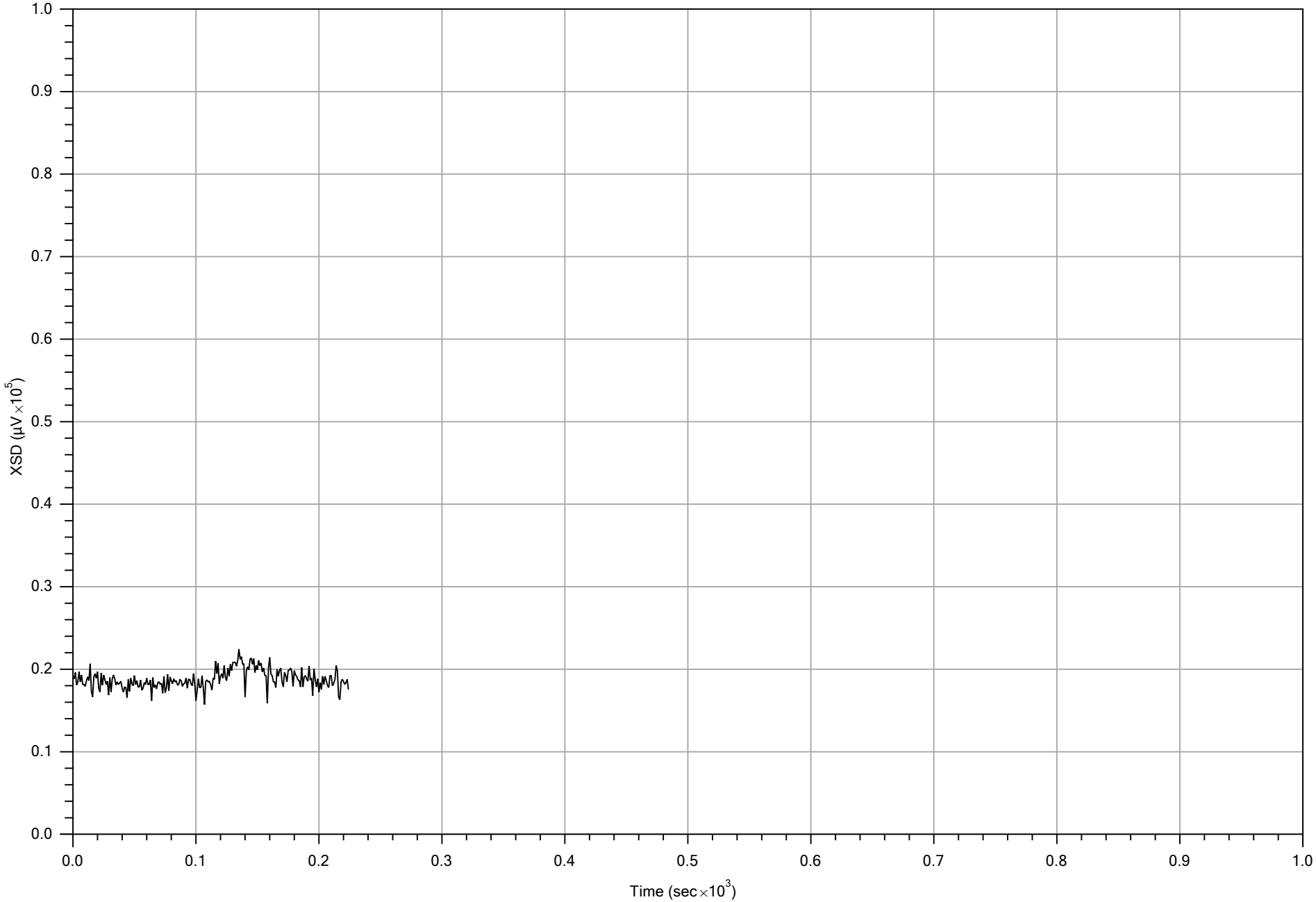
POST-LOG RESPONSE

File: MIP-11.POST.TIM			Date: 4/17/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 113071 µV



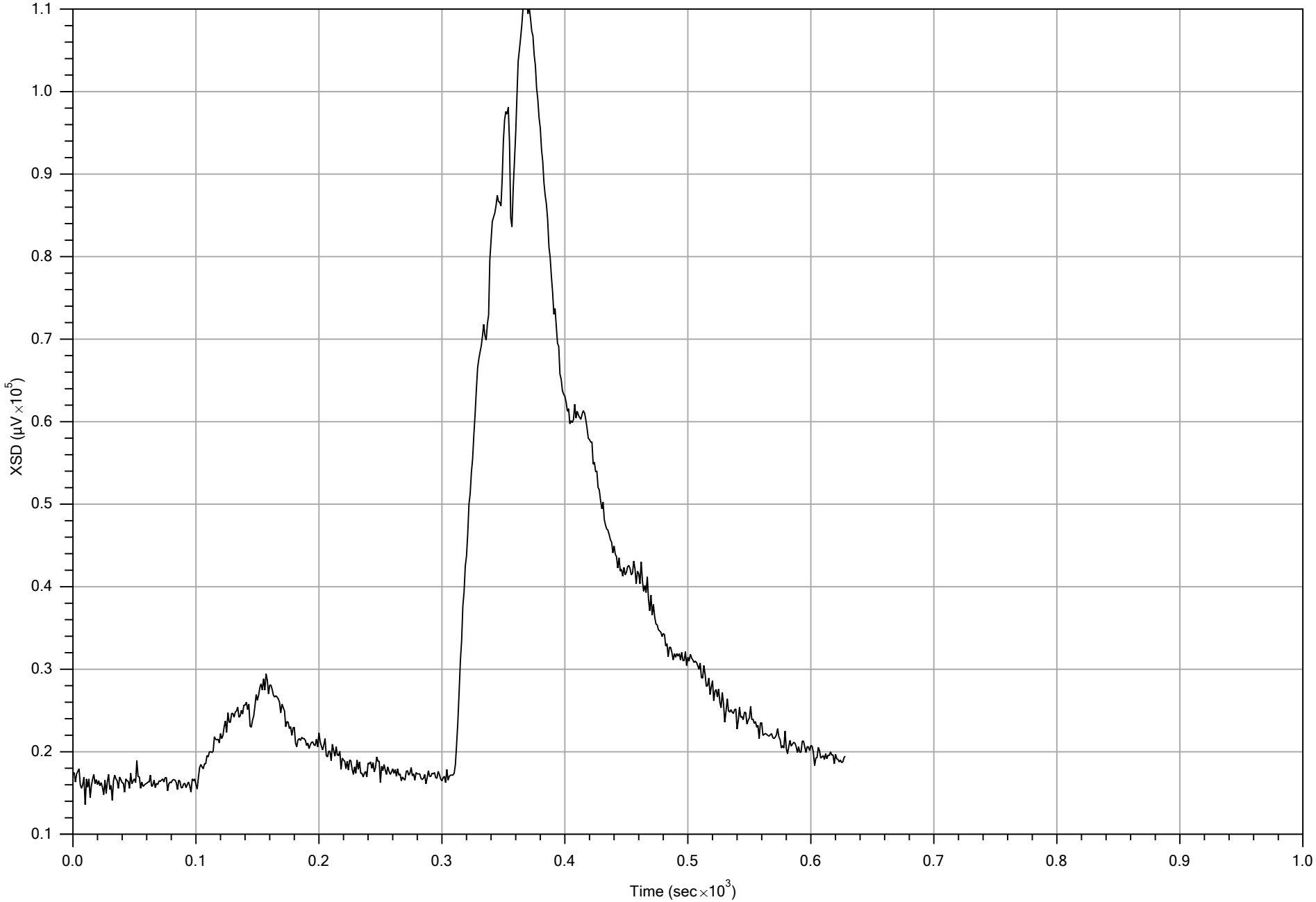
PRE-LOG RESPONSE

File: MIP-12.PRE.TIM			Date: 4/18/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 98880 µV



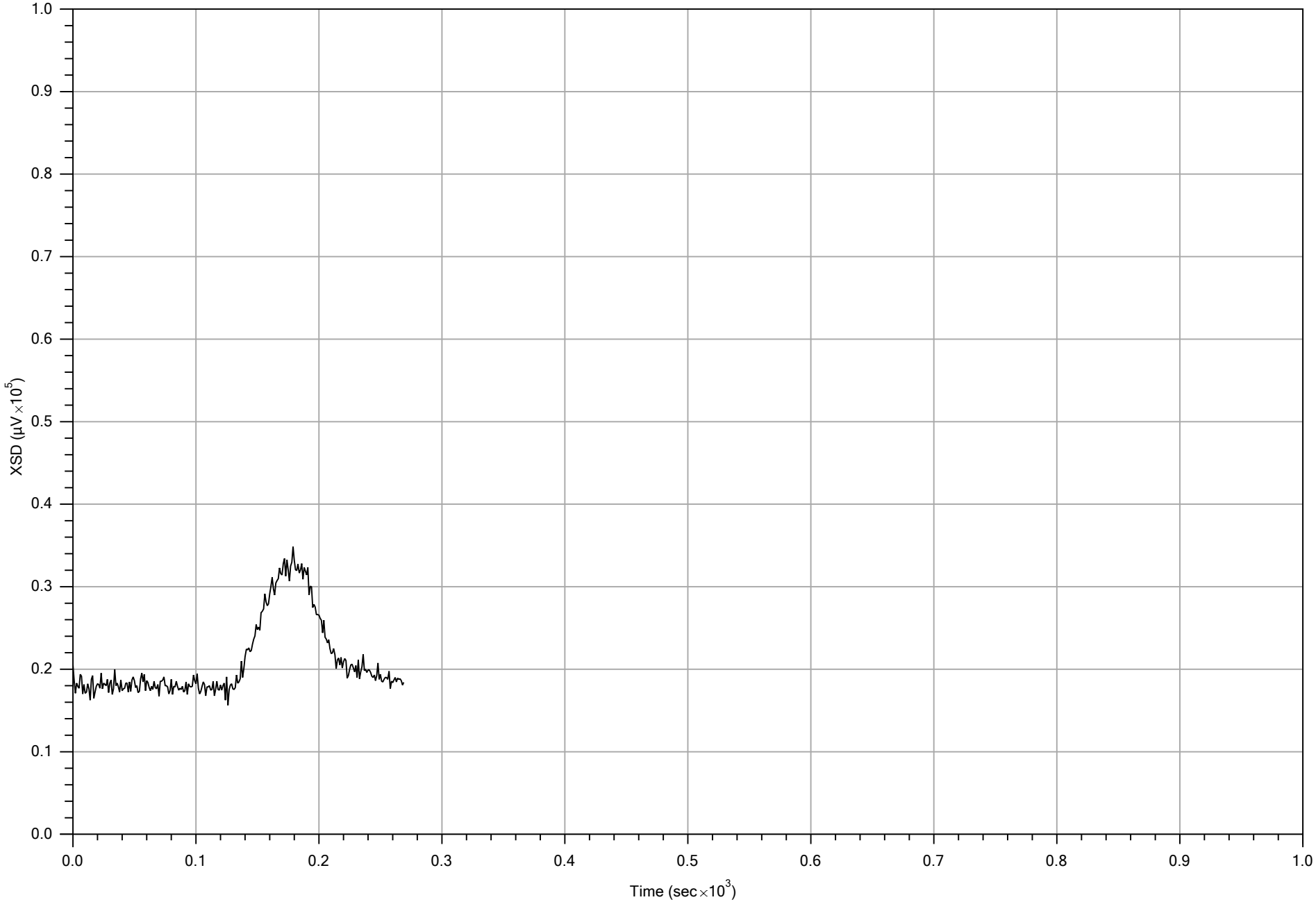
POST-LOG RESPONSE

File: MIP-12.POST.TIM			Date: 4/18/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 22431 µV



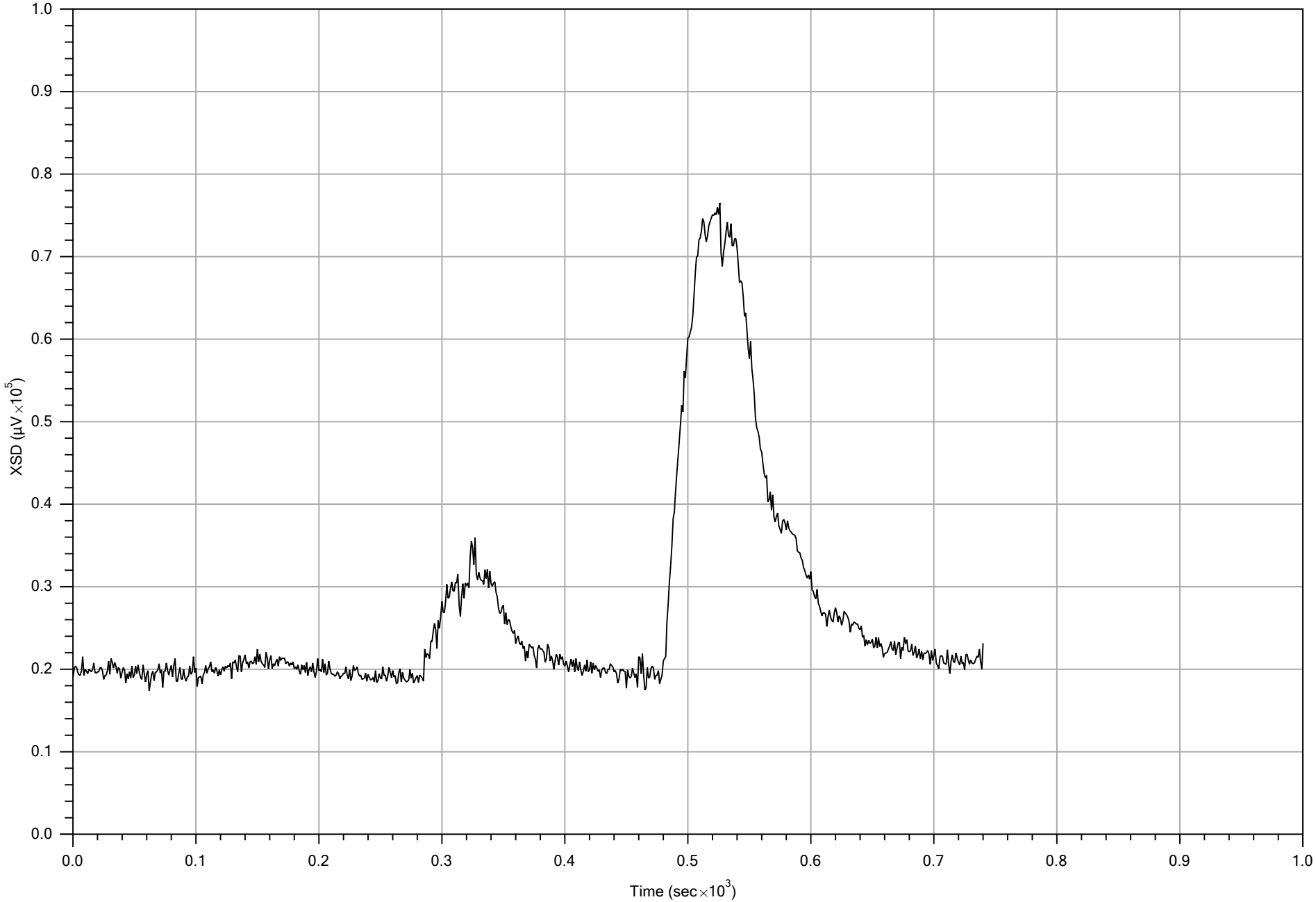
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-13.POST.TIM	Date: 4/18/2012
		Detector: XSD	Concentration: 5, 50 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 111011 µV



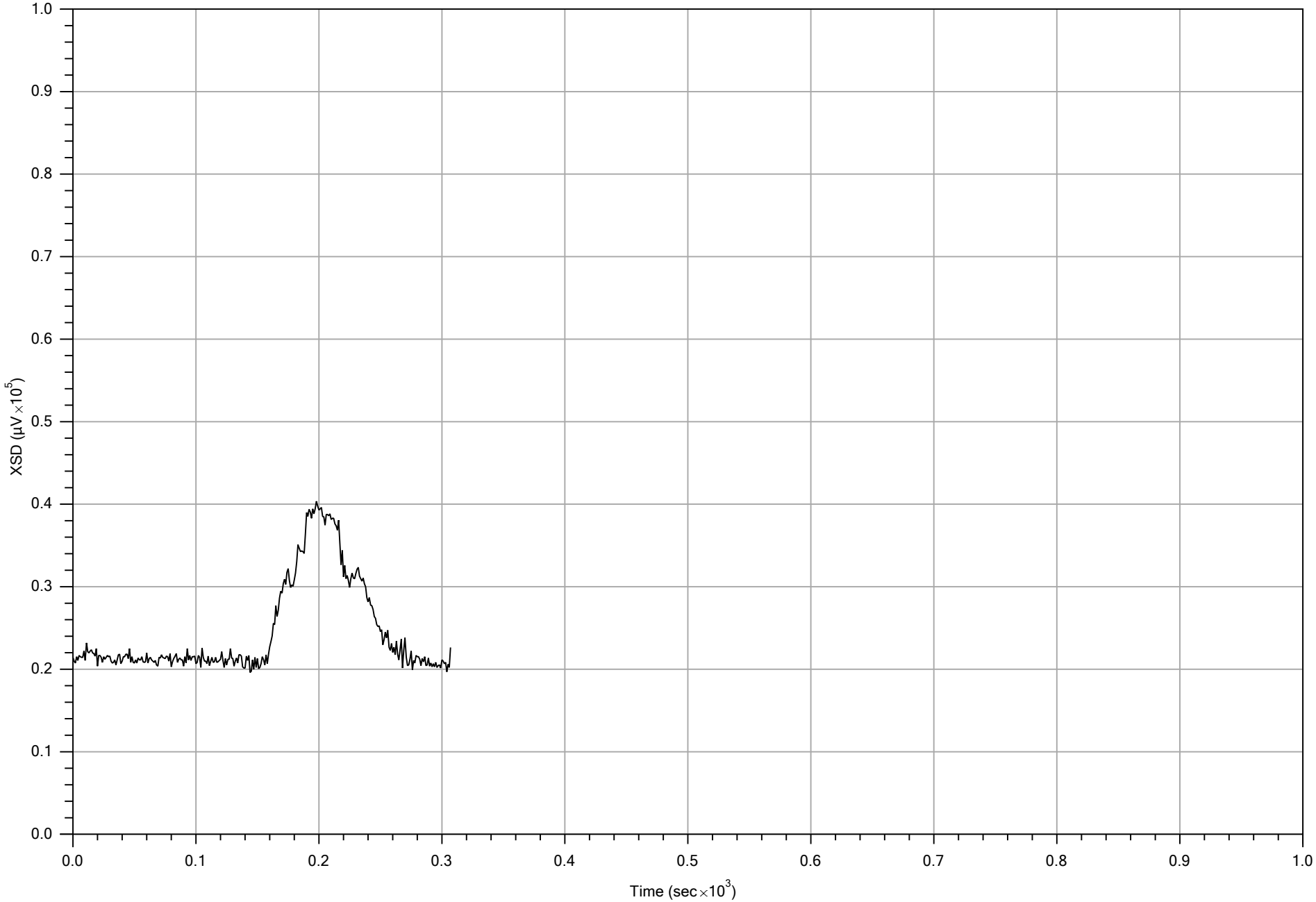
POST-LOG RESPONSE

File: MIP-14.POST.TIM			Date: 4/18/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 34867 µV



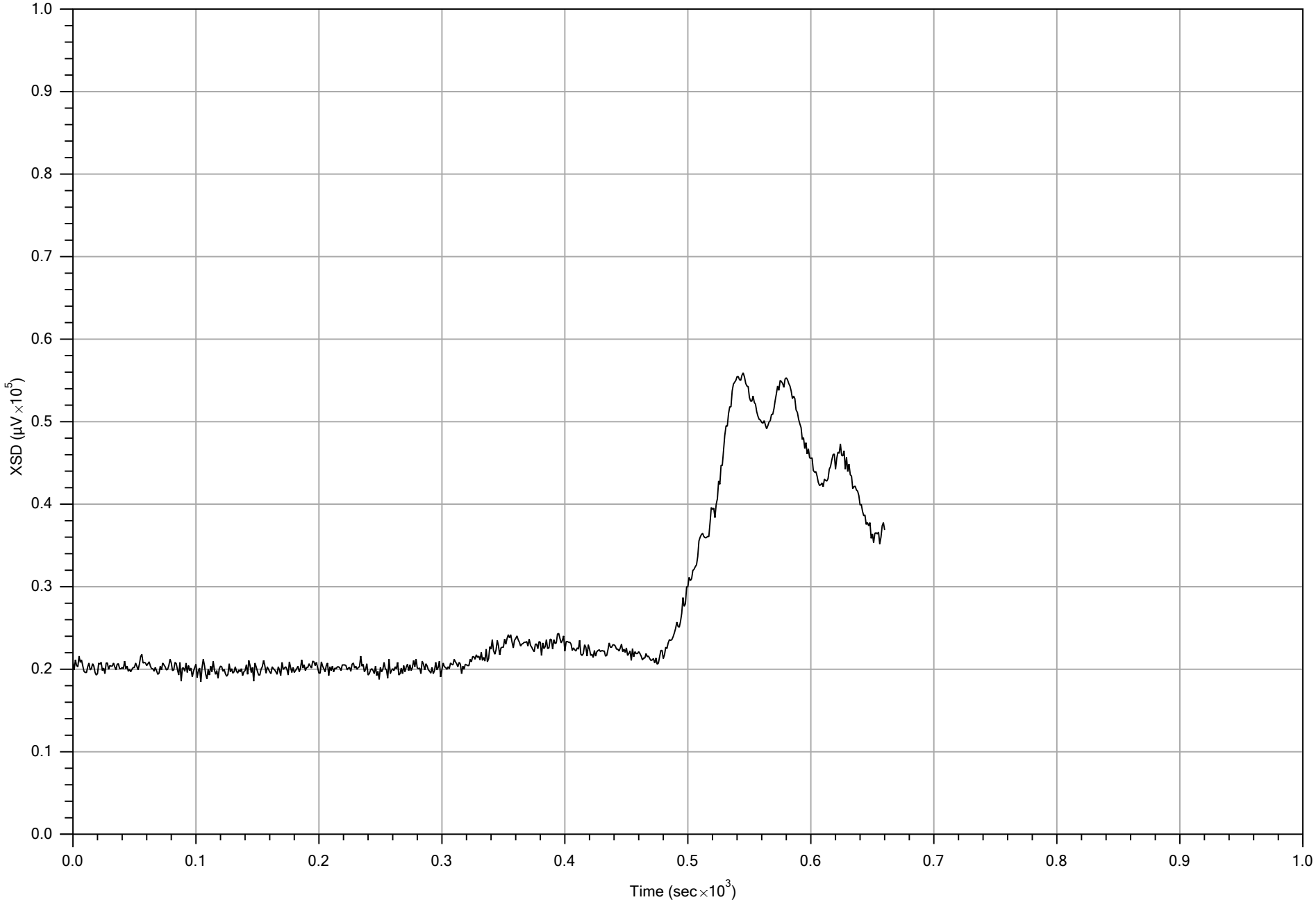
POST-LOG RESPONSE

File: MIP-15.POST.TIM			Date: 4/18/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 76525 µV



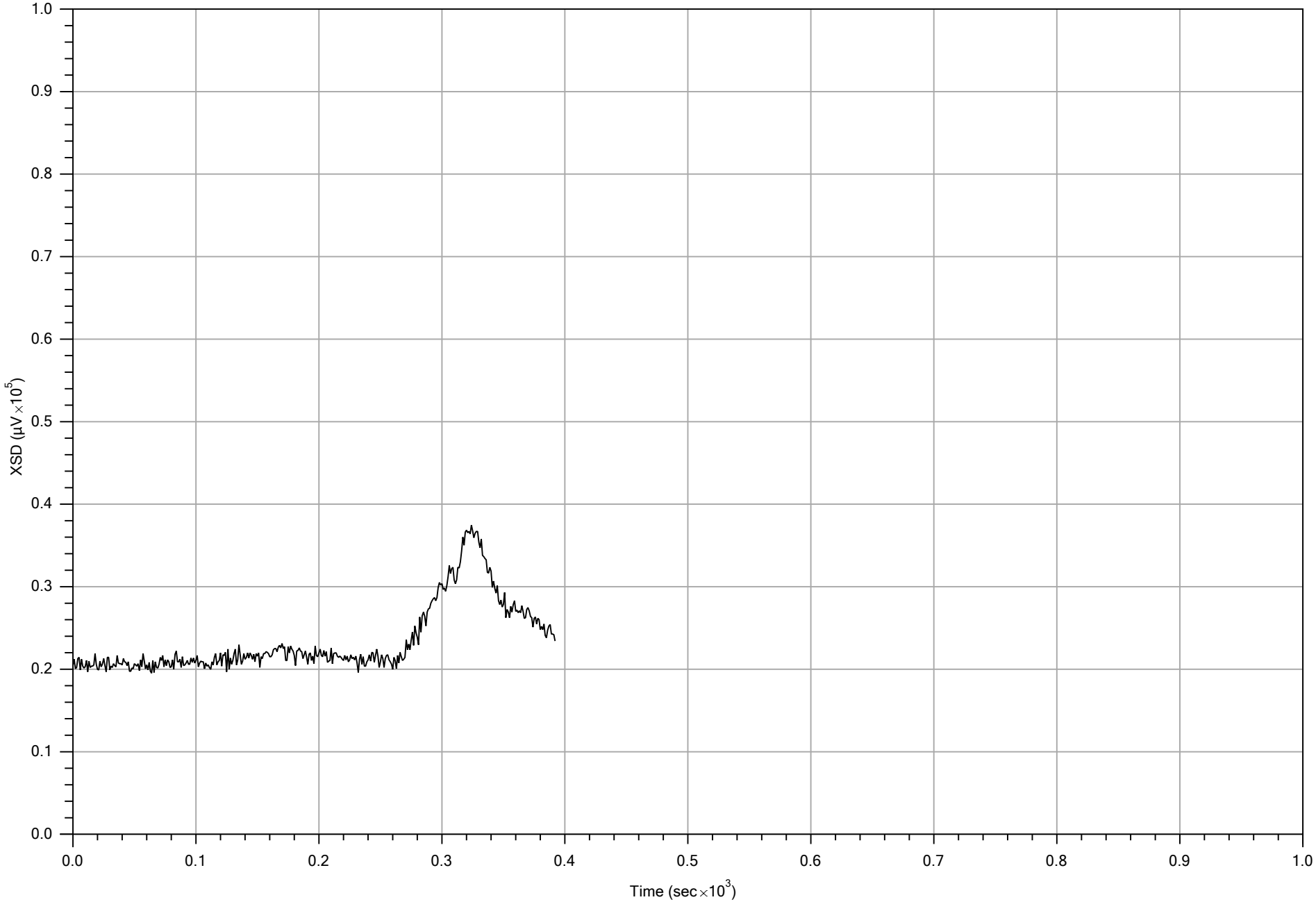
PRE-LOG RESPONSE

File: MIP-16.PRE.TIM			Date: 4/18/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 40361 µV



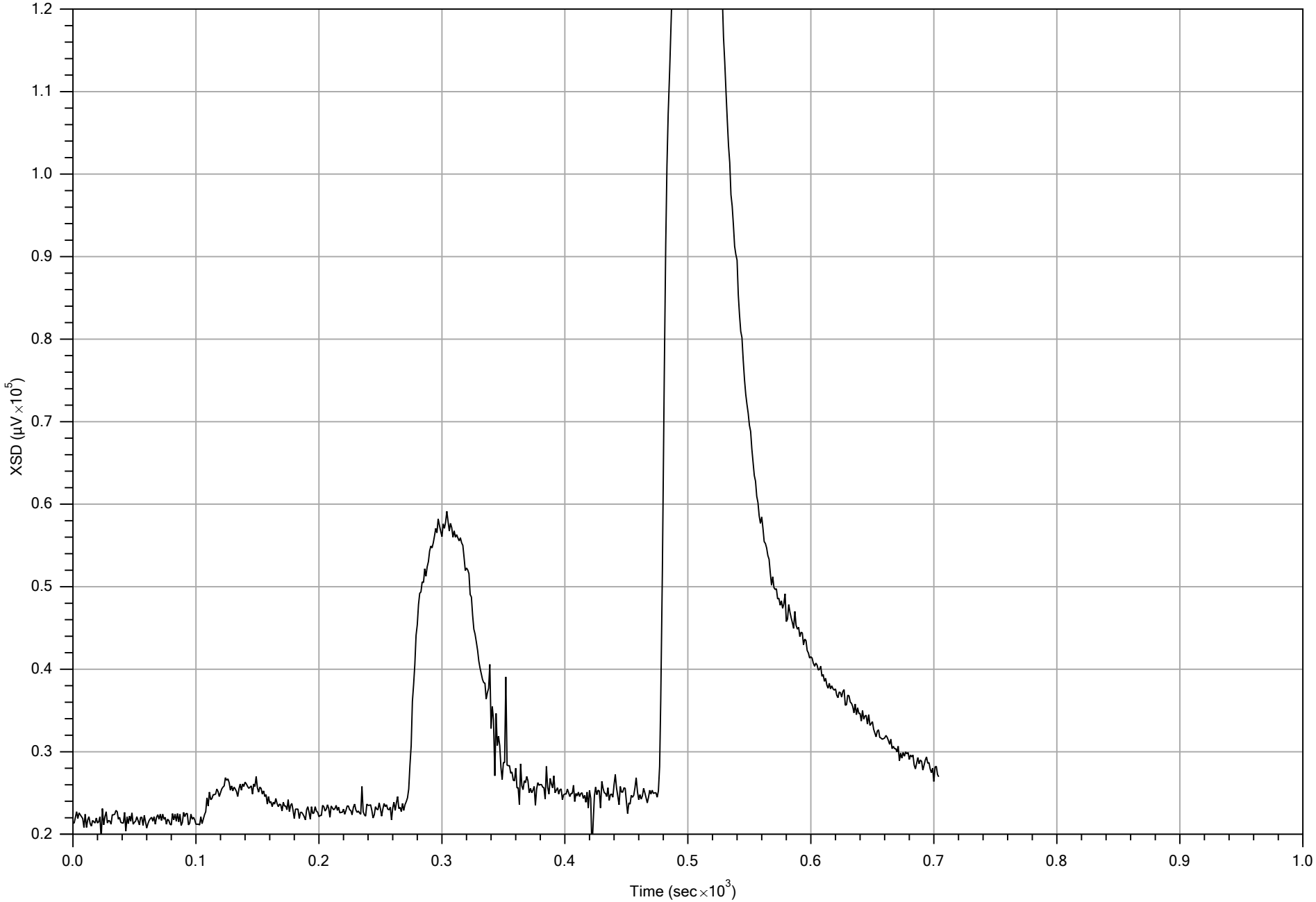
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-16.POST.TIM	Date: 4/18/2012
Project ID: 047-MNDS-12	Client: Golder	Detector: XSD	Concentration: 0.5, 5, 50 ppm
		Compound: TCE	Peak Response: 55925 µV



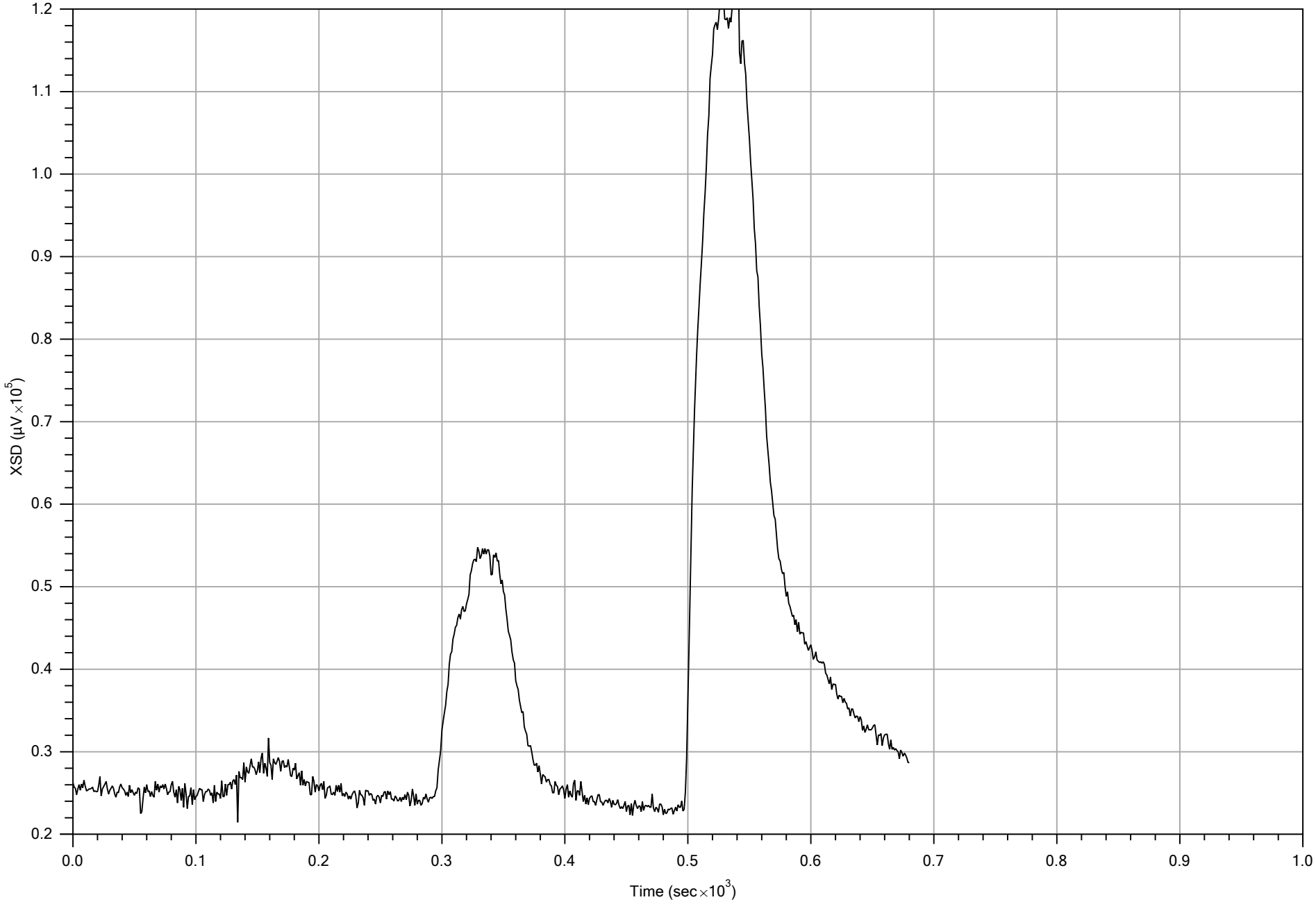
POST-LOG RESPONSE

File: MIP-16A.POST.TIM			Date: 4/18/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 37461 µV



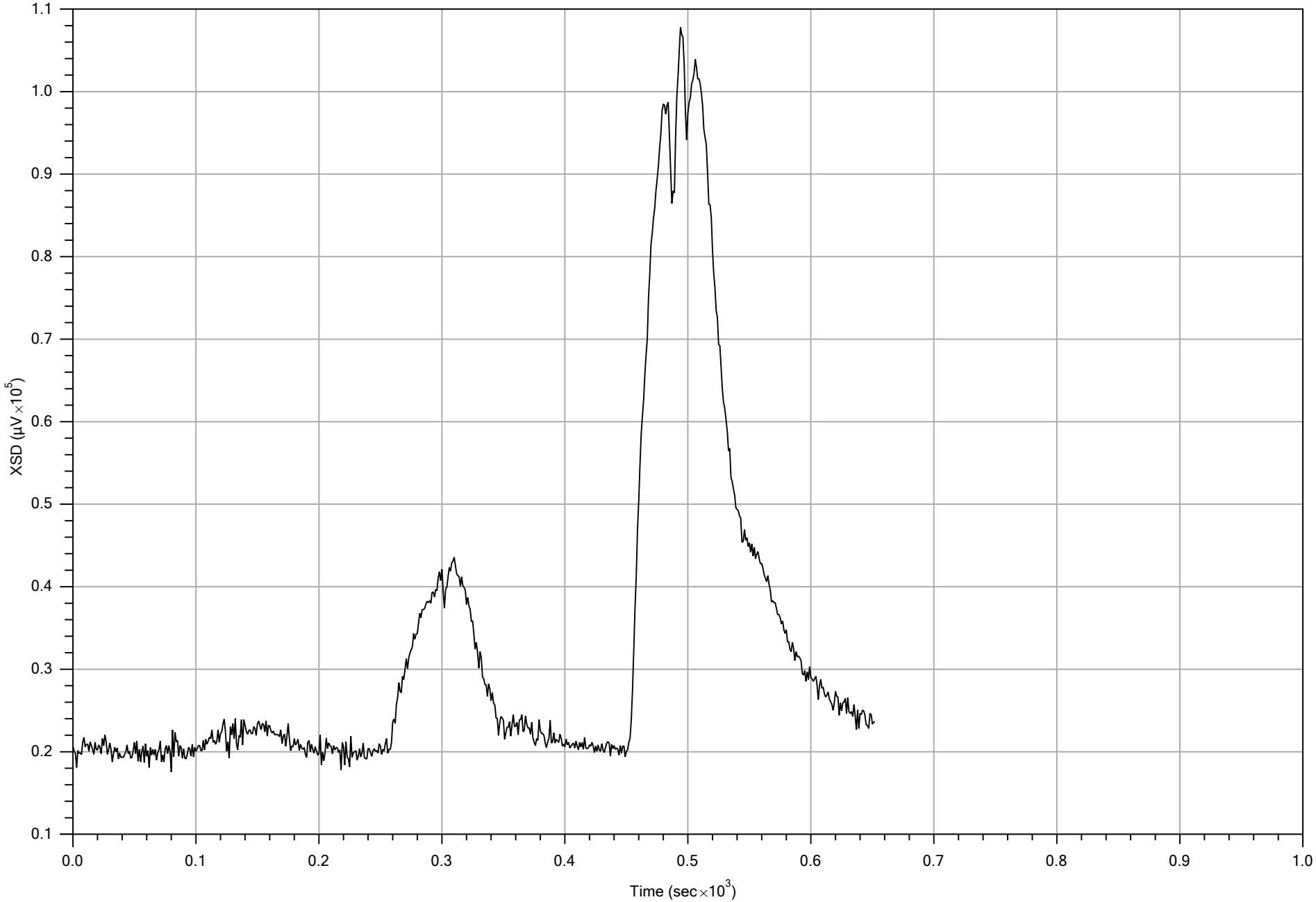
PRE-LOG RESPONSE

File: MIP-17.PRE.TIM			Date: 4/18/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 150609 µV



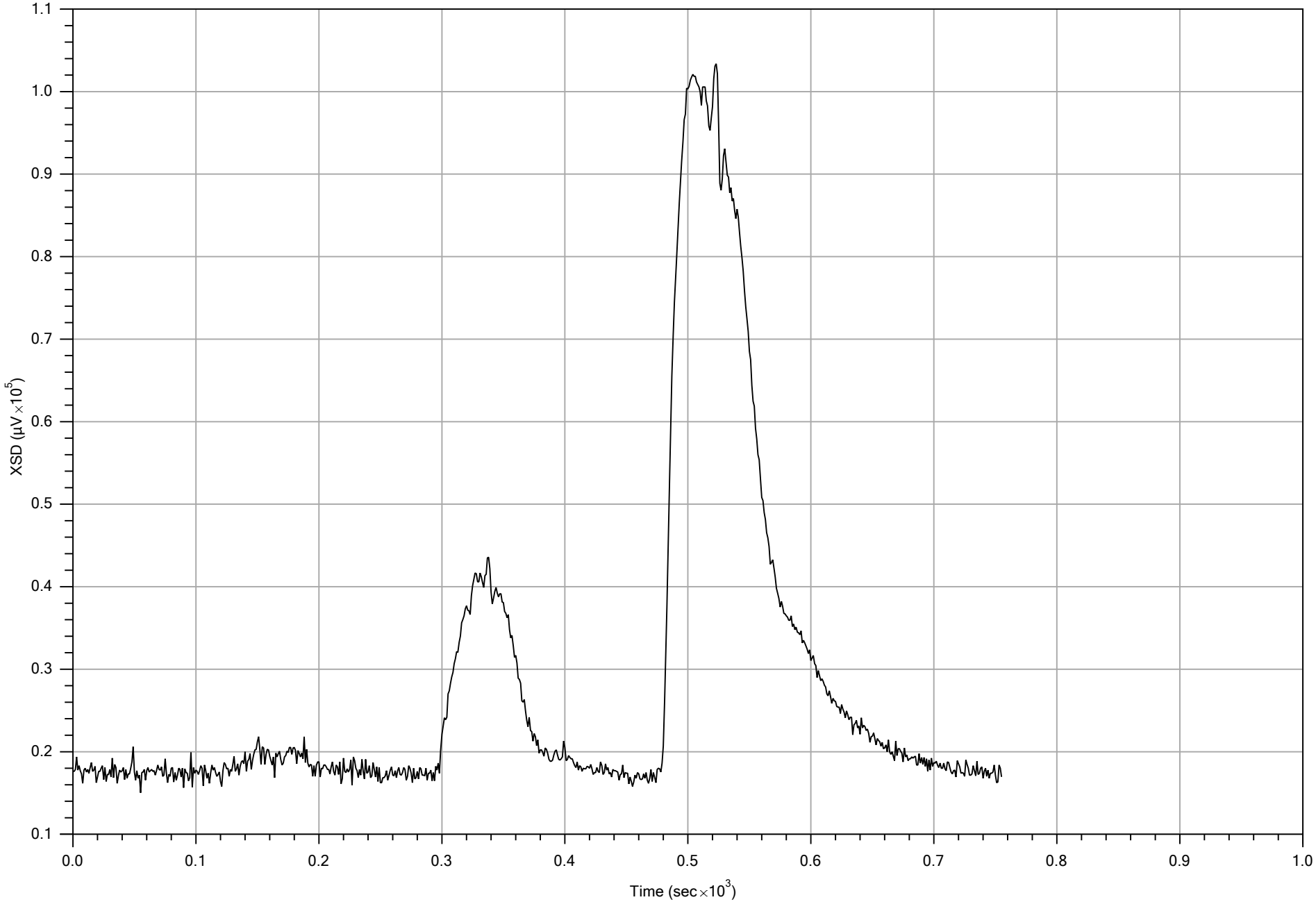
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-17.POST.TIM	Date: 4/18/2012
Project ID: 047-MNDS-12	Client: Golder	Detector: XSD	Concentration: 0.5, 5, 25 ppm
		Compound: TCE	Peak Response: 125431 µV



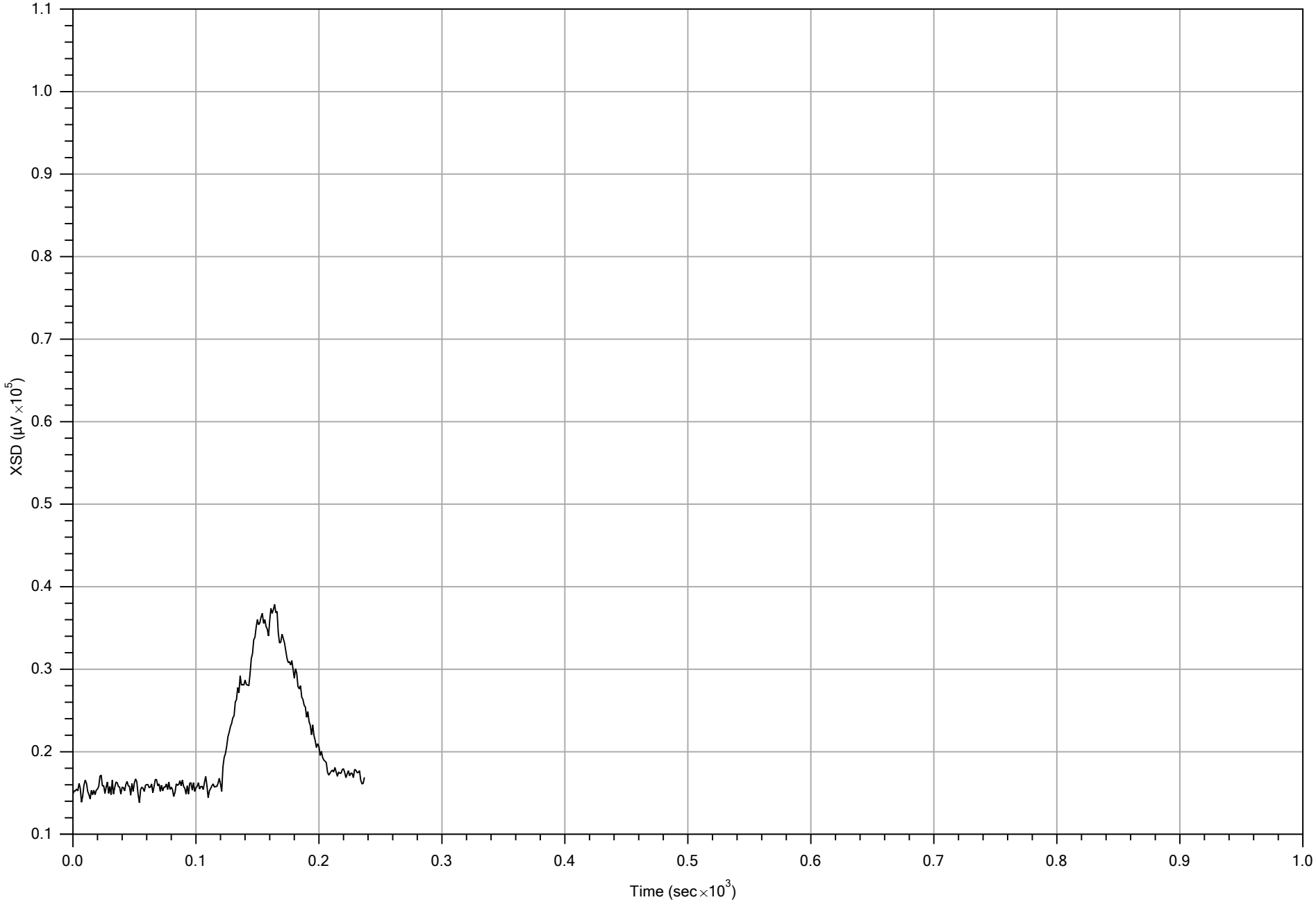
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-18.POST.TIM	Date: 4/18/2012
Project ID: 047-MNDS-12	Client: Golder	Detector: XSD	Concentration: 0.5, 5, 25 ppm
		Compound: TCE	Peak Response: 107807 µV



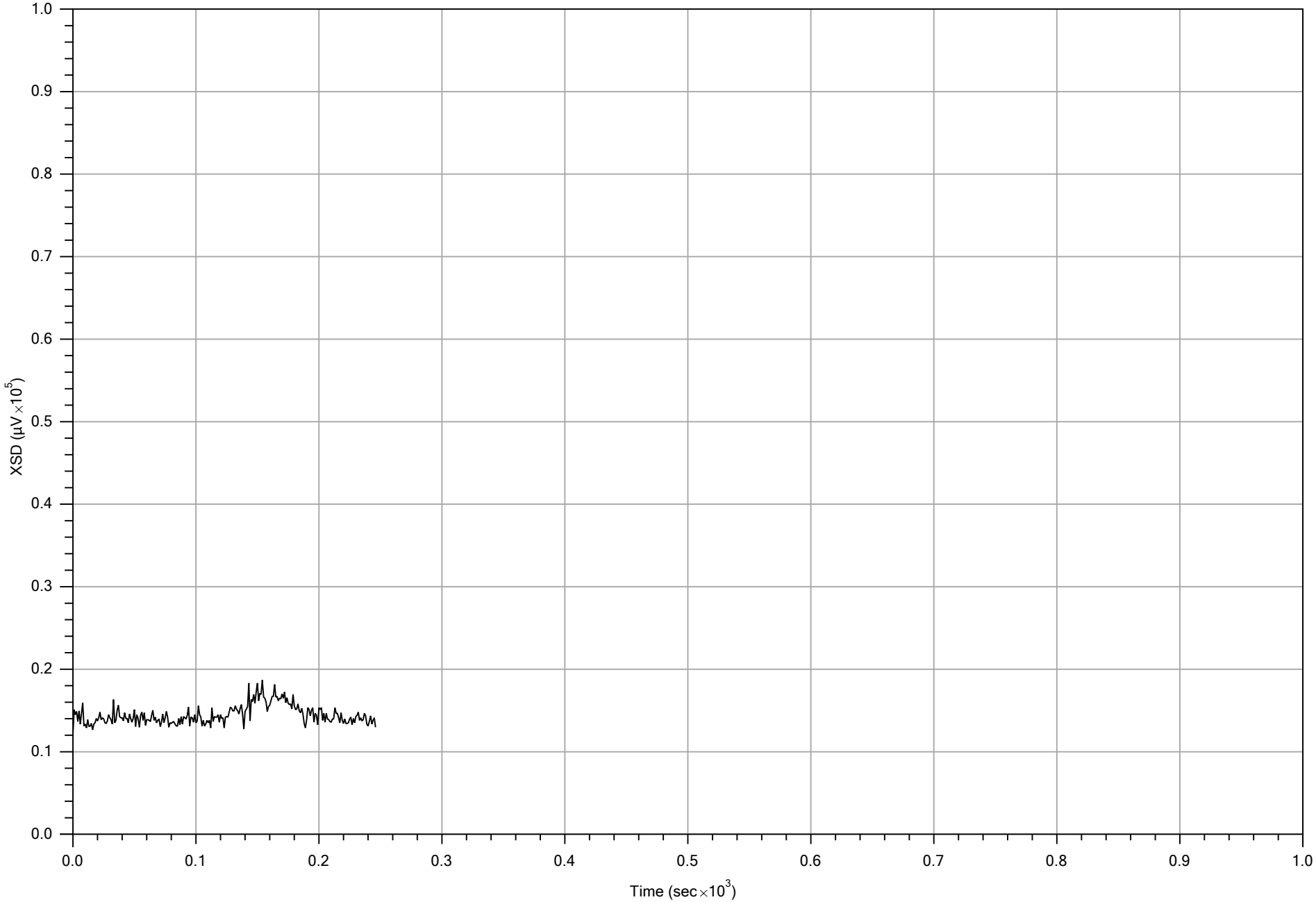
PRE-LOG RESPONSE

File: MIP-19.PRE.TIM			Date: 4/19/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 103381 µV



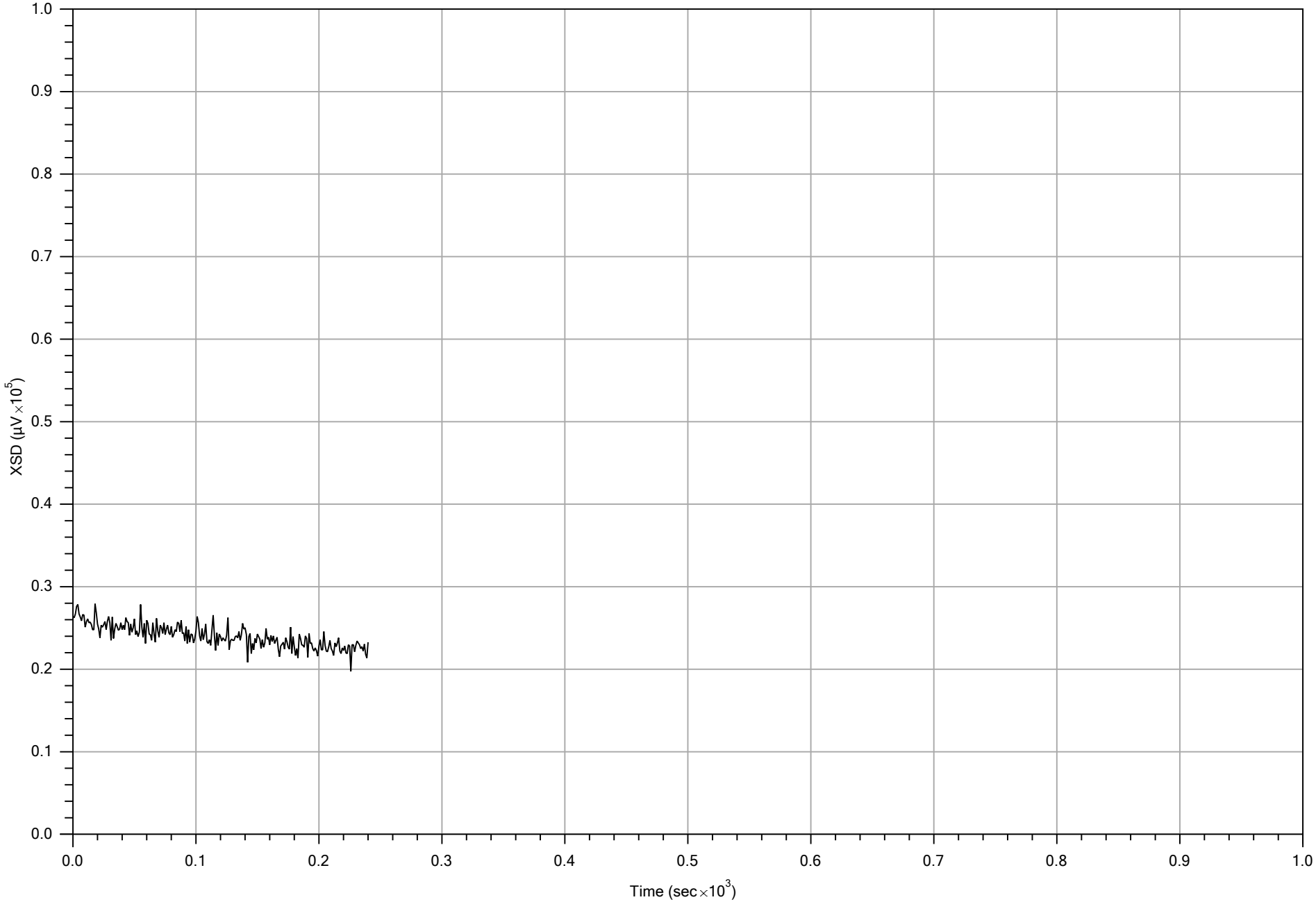
POST-LOG RESPONSE

File: MIP-19.POST.TIM			Date: 4/19/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 37843 µV



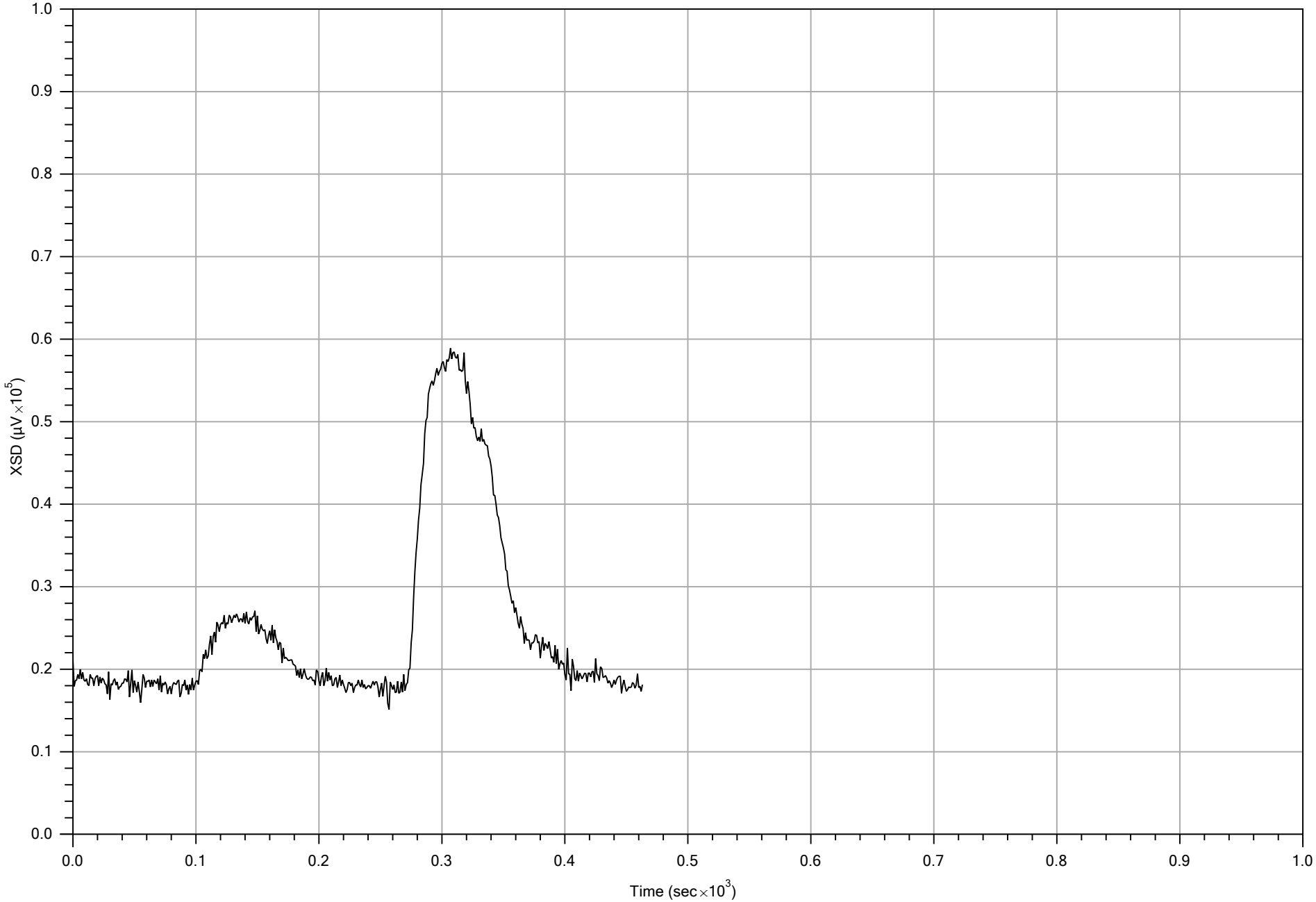
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-20.POST.TIM	Date: 4/19/2012
Project ID: 047-MNDS-12	Client: Golder	Detector: XSD	Concentration: 0.5 ppm
		Compound: TCE	Peak Response: 18693 µV



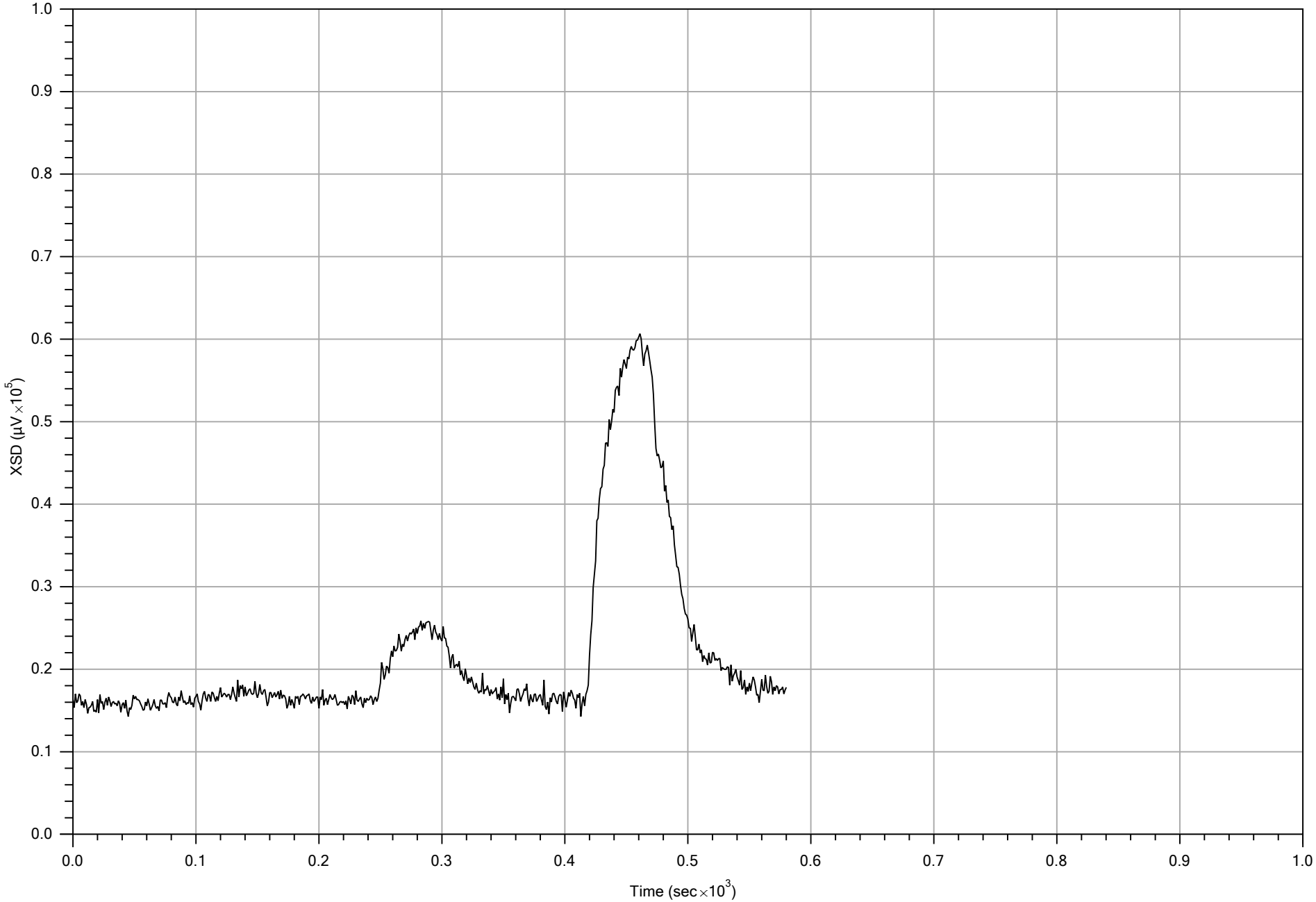
POST-LOG RESPONSE

File: MIP-21.POST.TIM			Date: 4/19/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 27924 µV



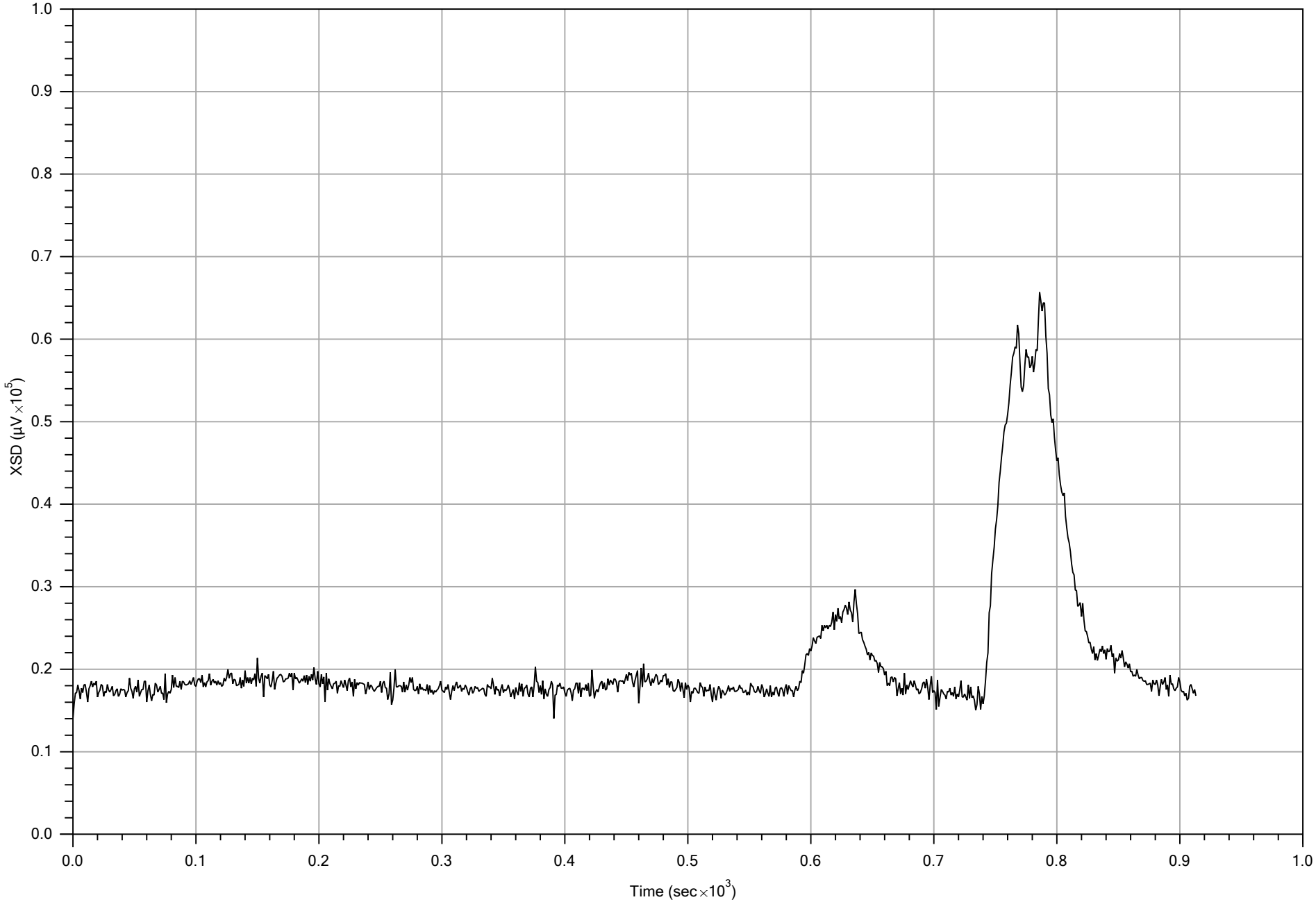
PRE-LOG RESPONSE

File: MIP-22.PRE.TIM			Date: 4/19/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 58901 µV



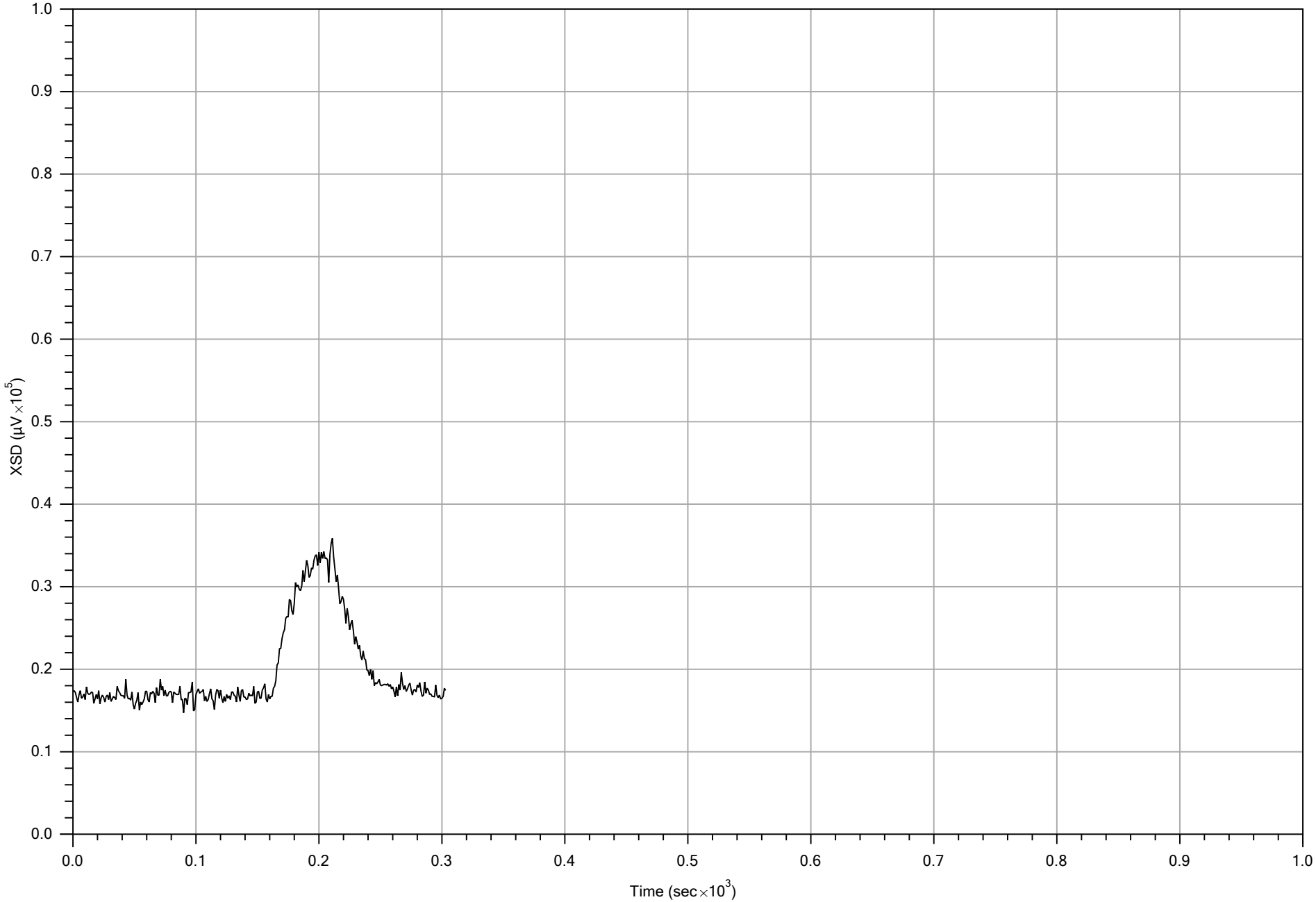
POST-LOG RESPONSE

File: MIP-22.POST.TIM			Date: 4/19/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 60656 µV



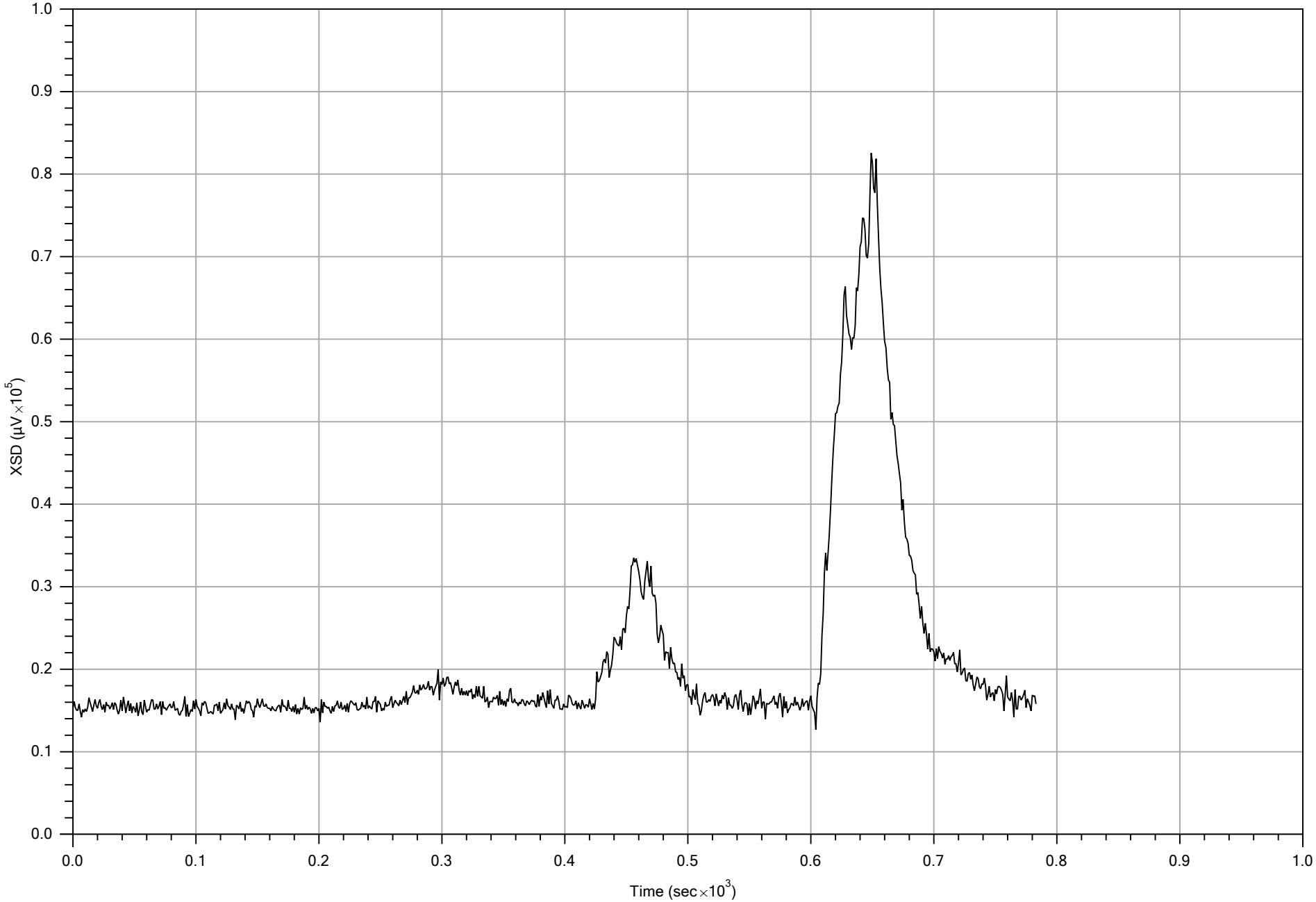
PRE-LOG RESPONSE

File: MIP-23.PRE.TIM			Date: 4/19/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 65691 µV



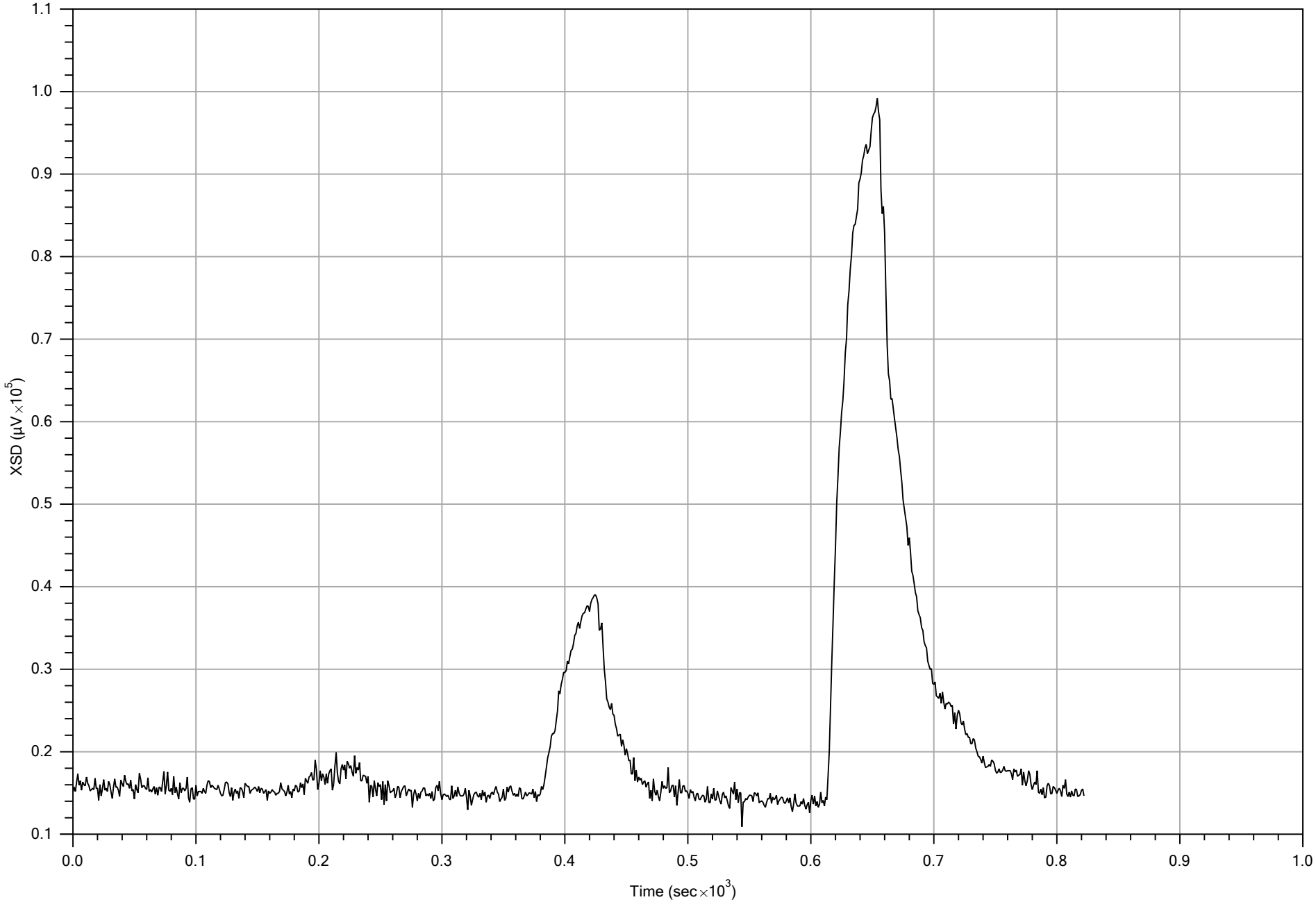
POST-LOG RESPONSE

File: MIP-23.POST.TIM			Date: 4/19/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 35859 µV



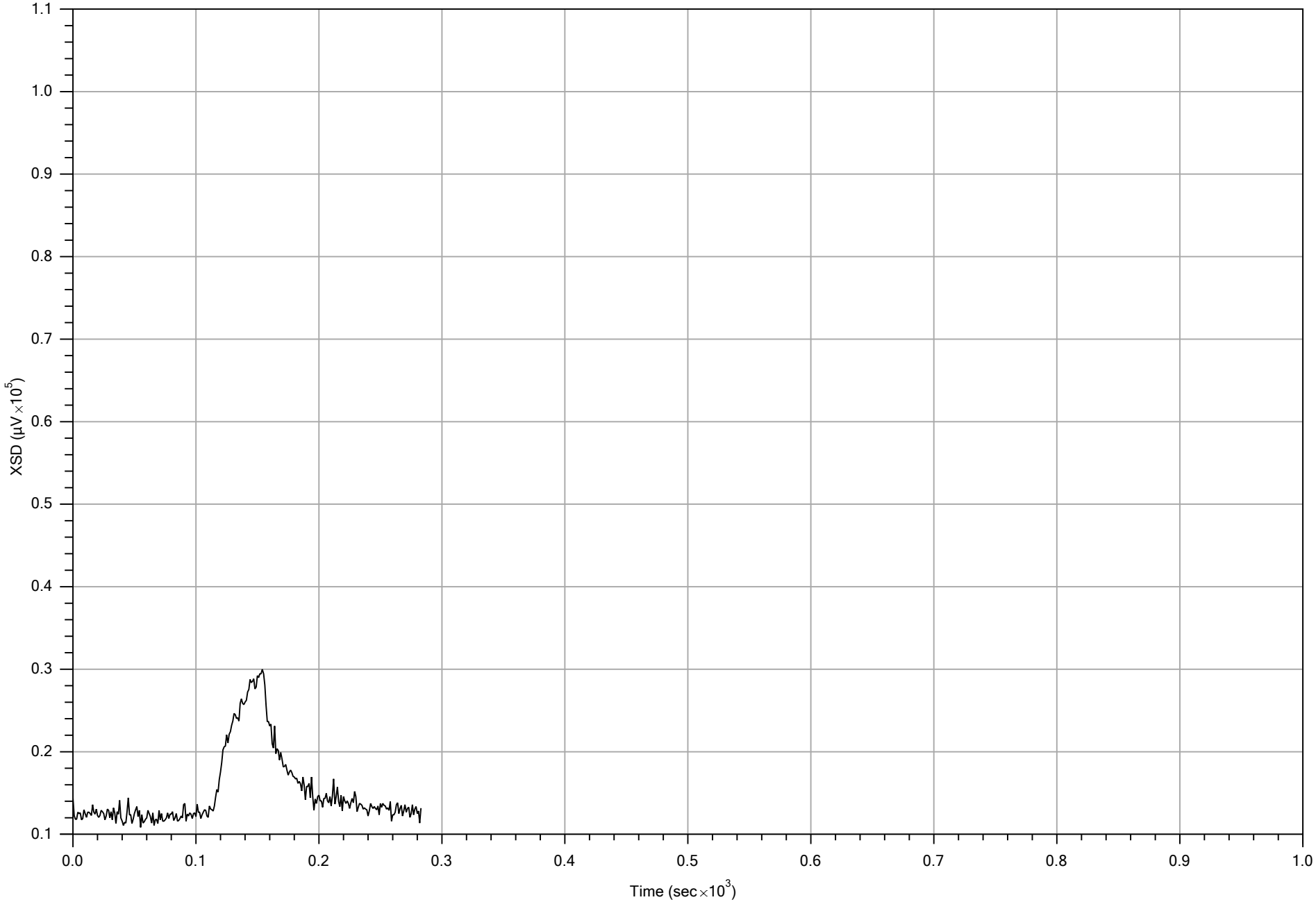
POST-LOG RESPONSE

File: MIP-24.POST.TIM			Date: 4/19/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 82553 µV



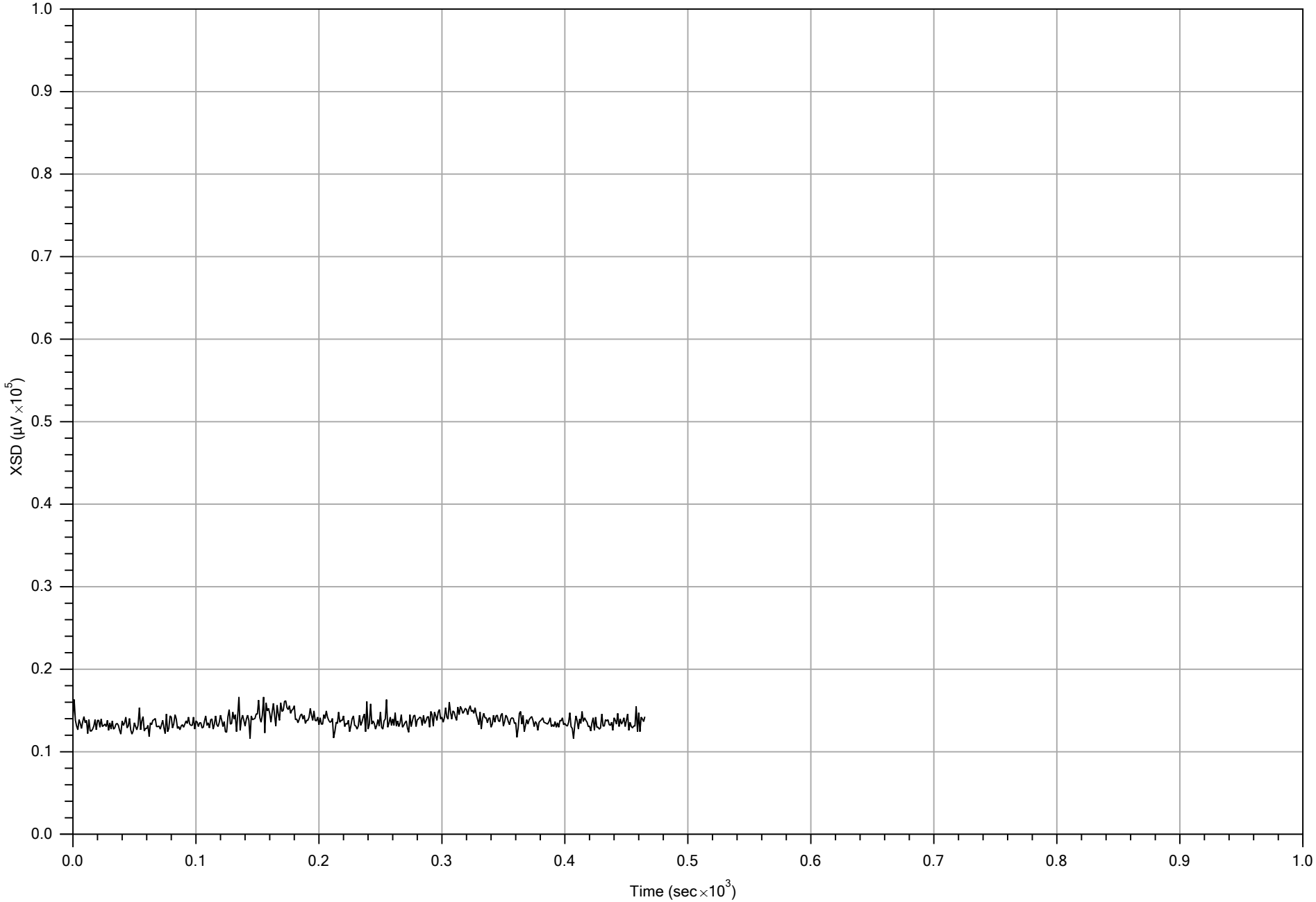
PRE-LOG RESPONSE

File: MIP-25.PRE.TIM			Date: 4/20/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 99185 µV



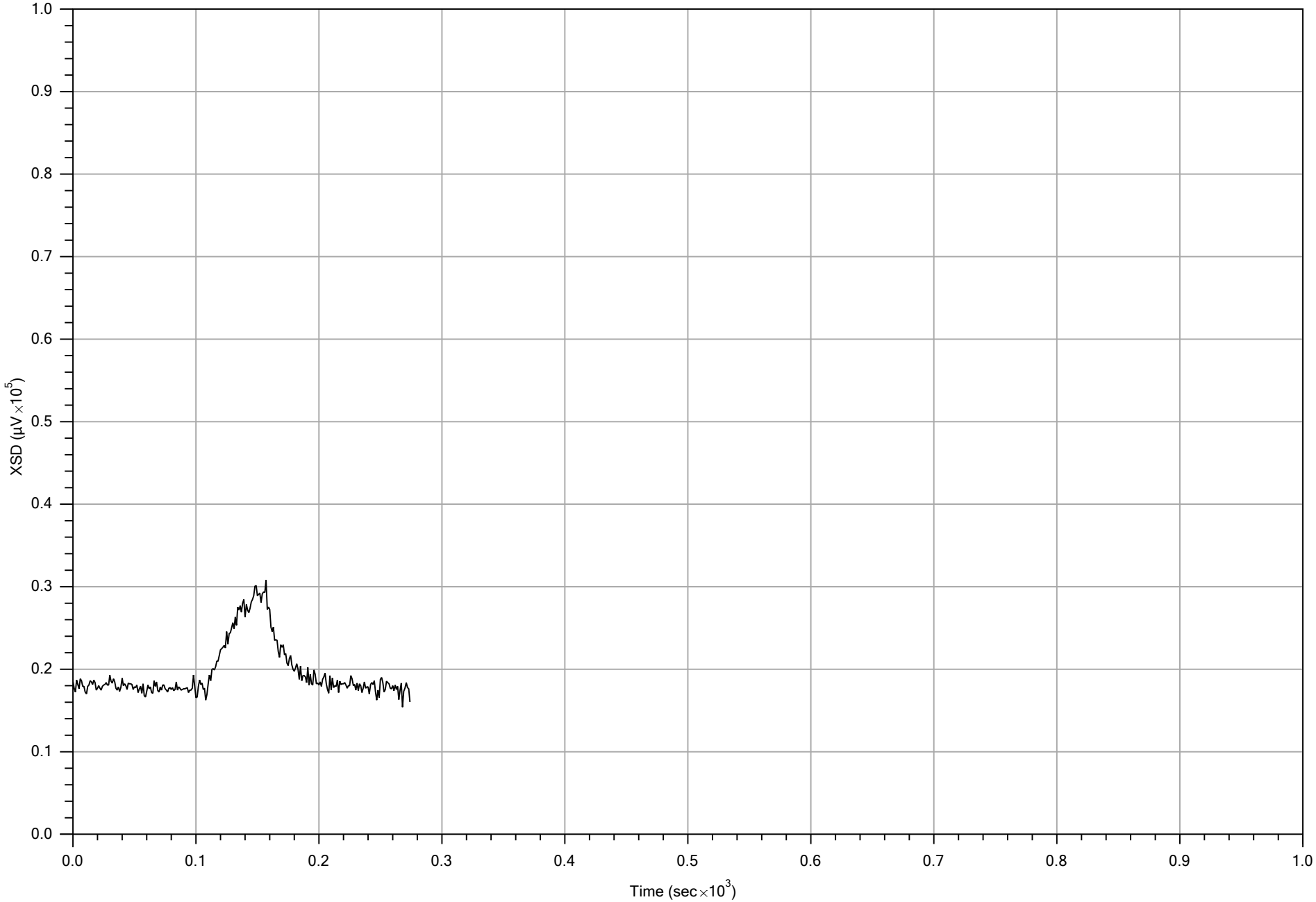
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-25.POST.TIM	Date: 4/20/2012
		Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 29984 µV



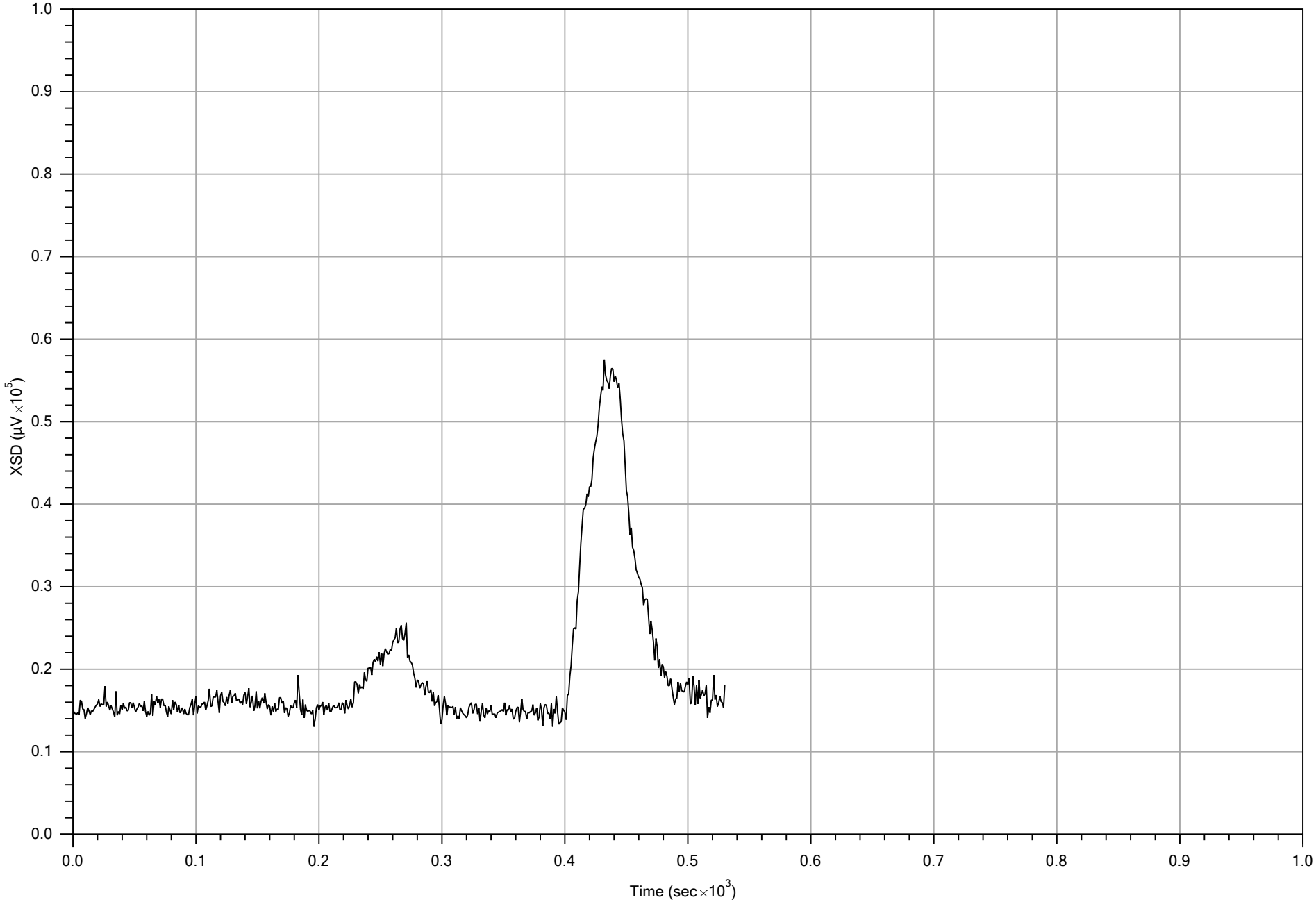
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-26.POST.TIM	Date: 4/20/2012
		Detector: XSD	Concentration: 0.5, 0.25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 16633 µV



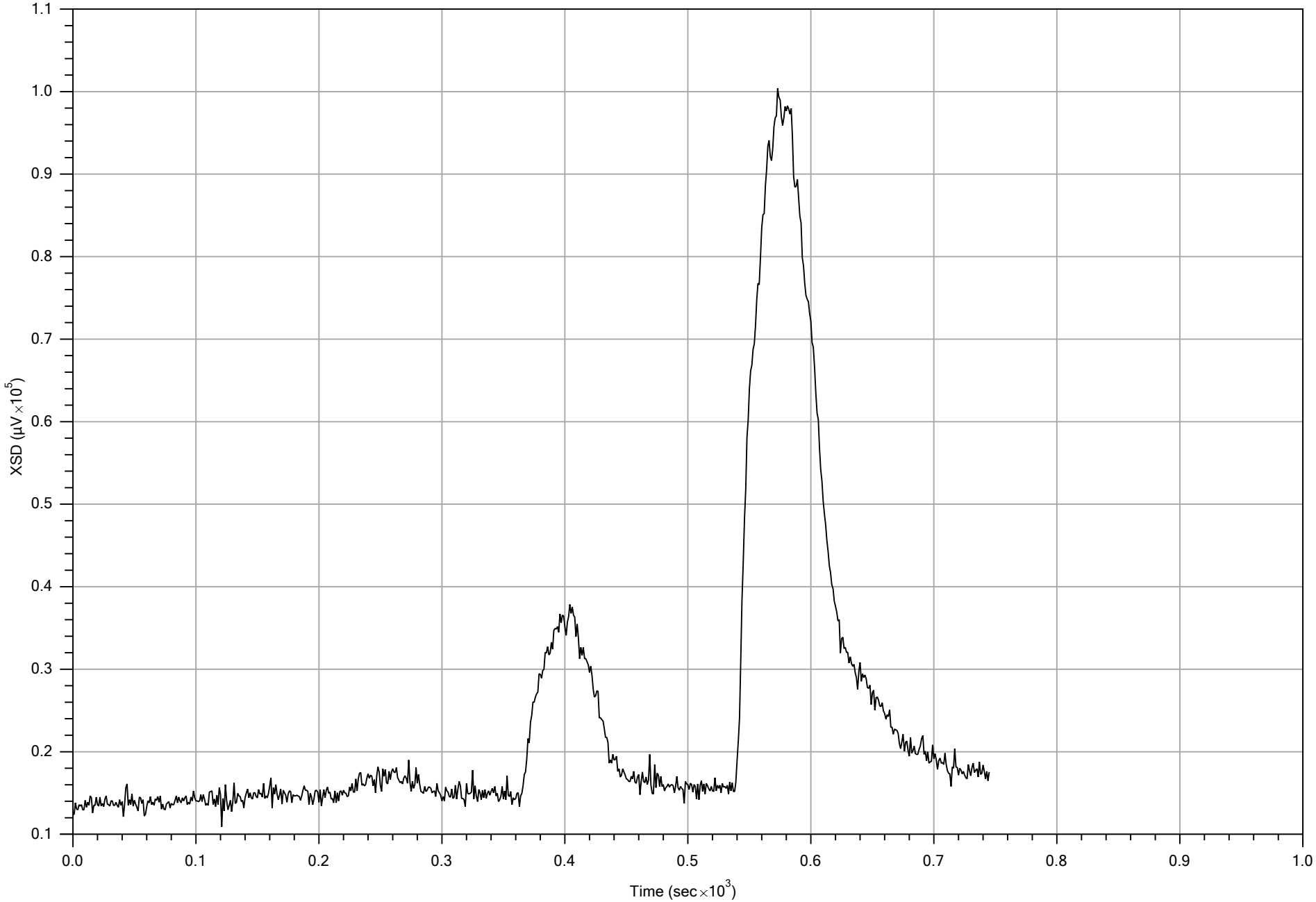
POST-LOG RESPONSE

File: MIP-27.POST.TIM			Date: 4/20/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 30824 µV



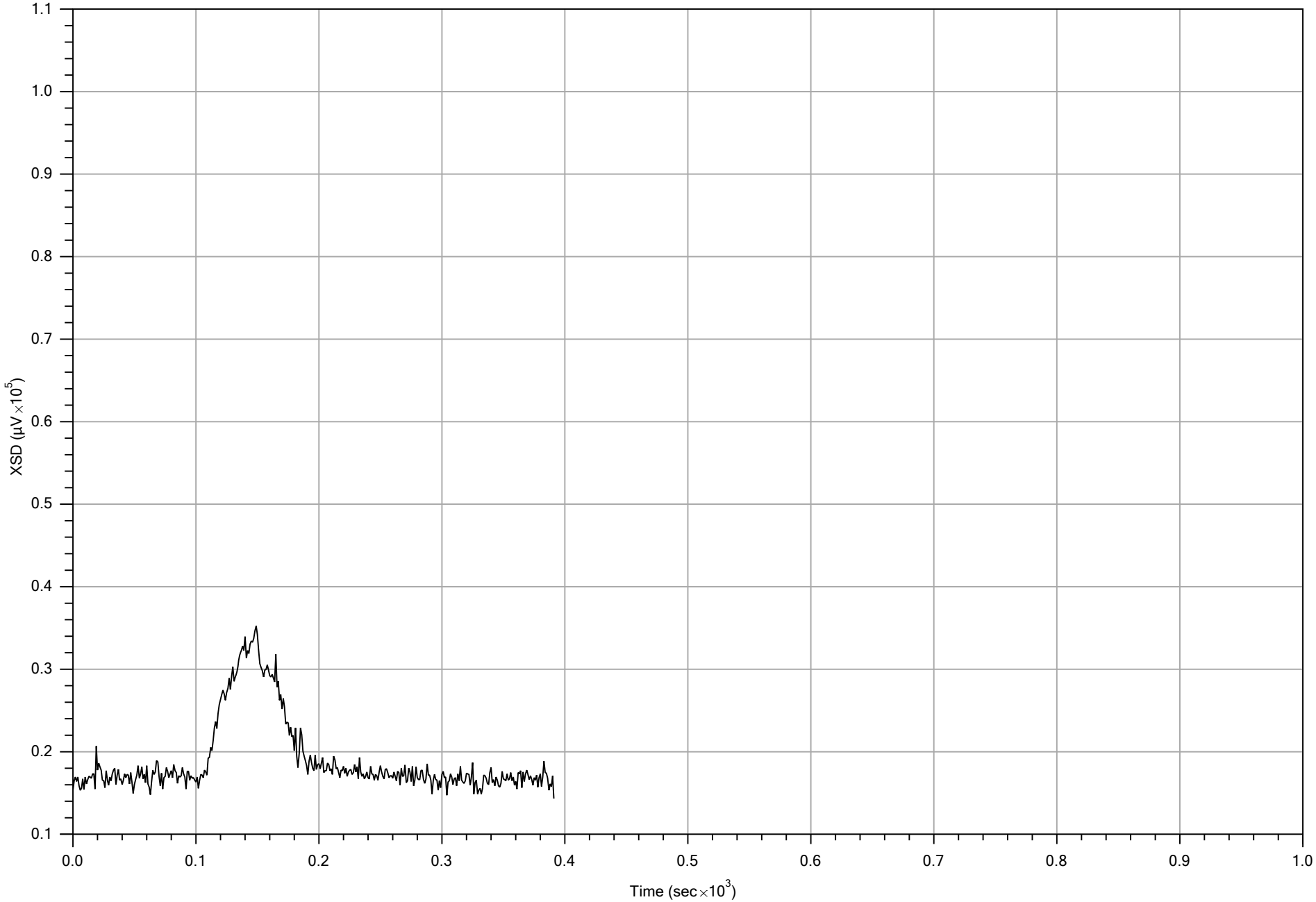
POST-LOG RESPONSE

File: MIP-28.POST.TIM			Date: 4/20/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 57527 µV



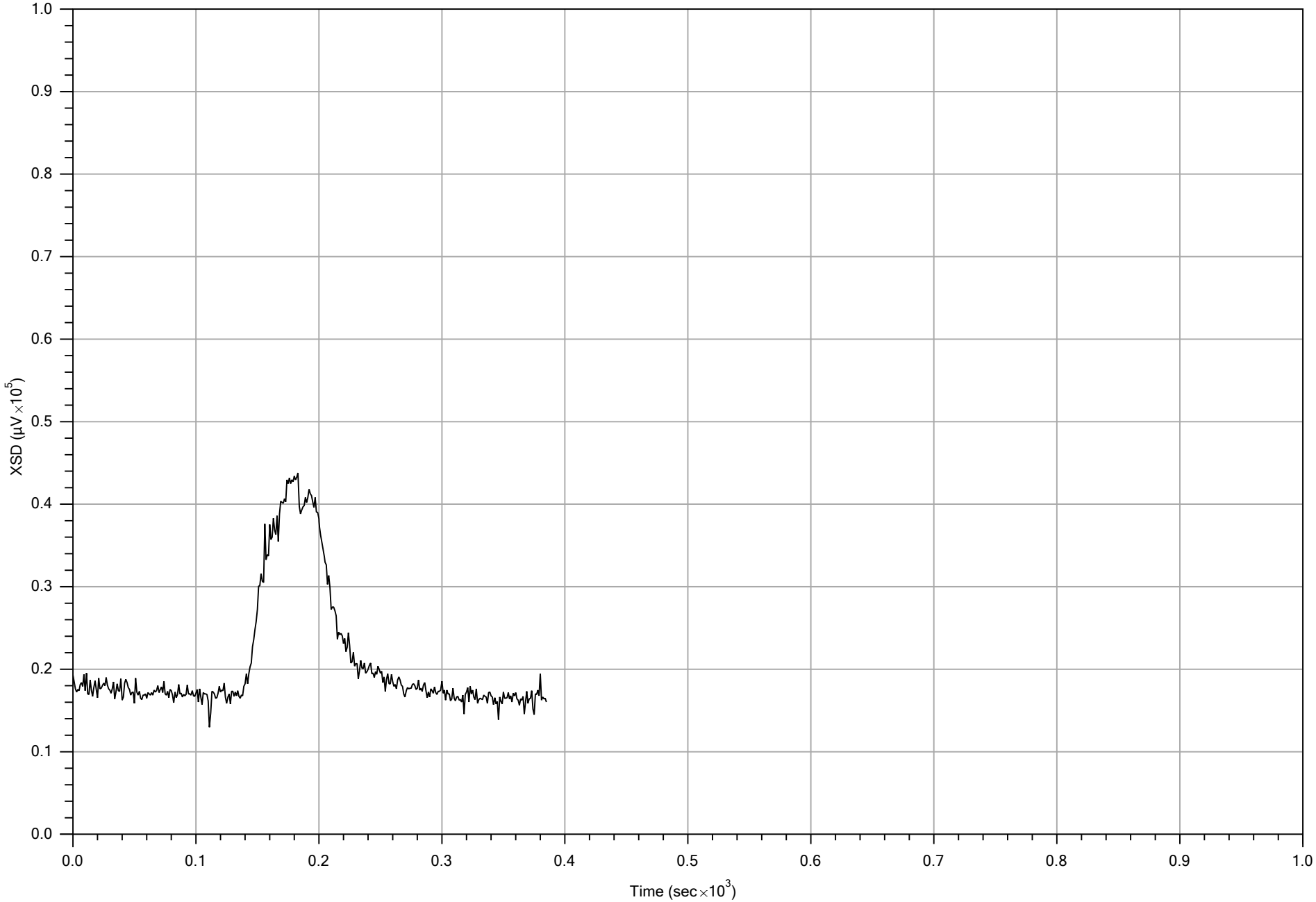
PRE-LOG RESPONSE

File: MIP-29.PRE.TIM			Date: 4/20/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 100406 µV



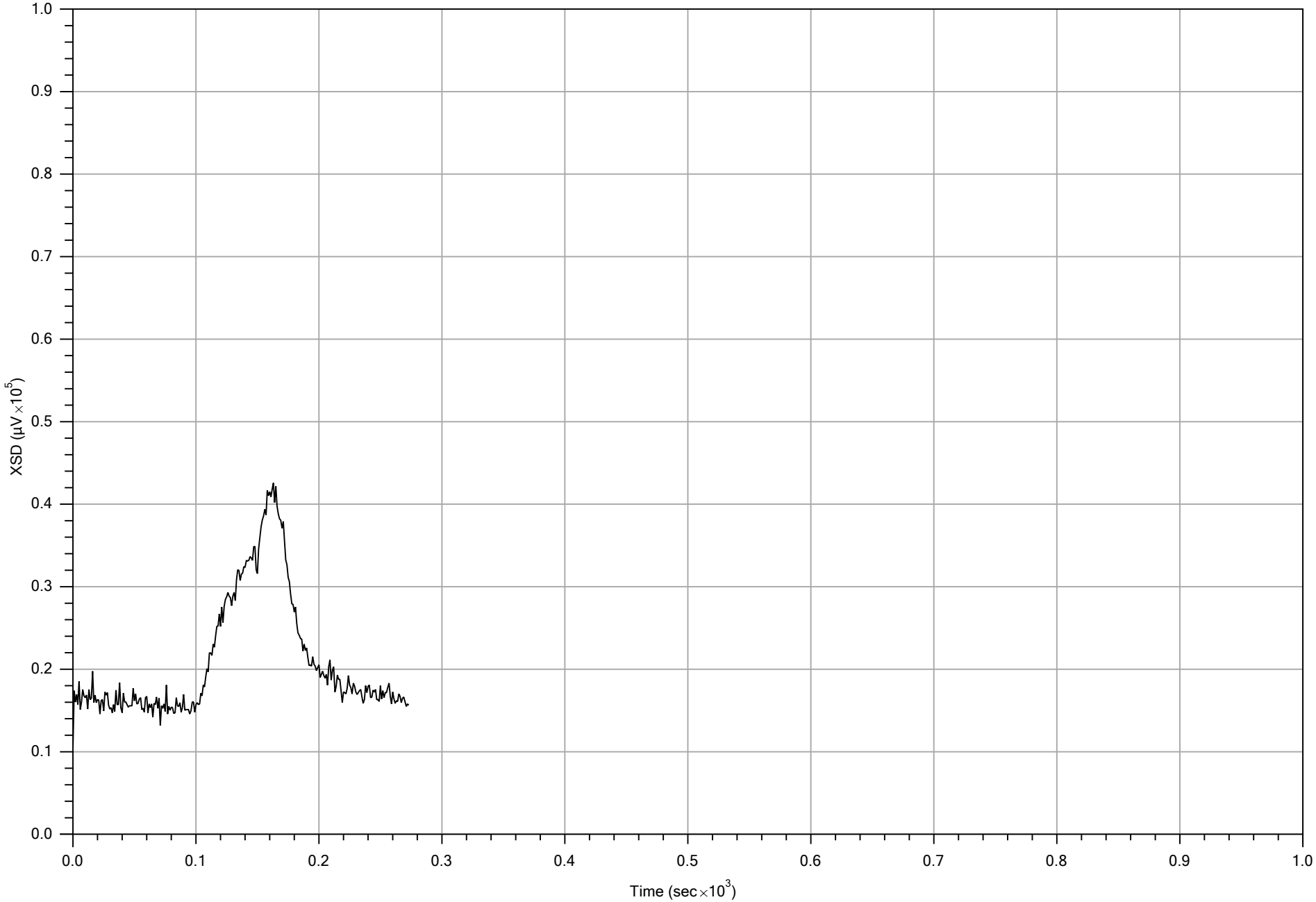
POST-LOG RESPONSE

		File: MIP-29.POST.TIM	Date: 4/20/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 35249 µV



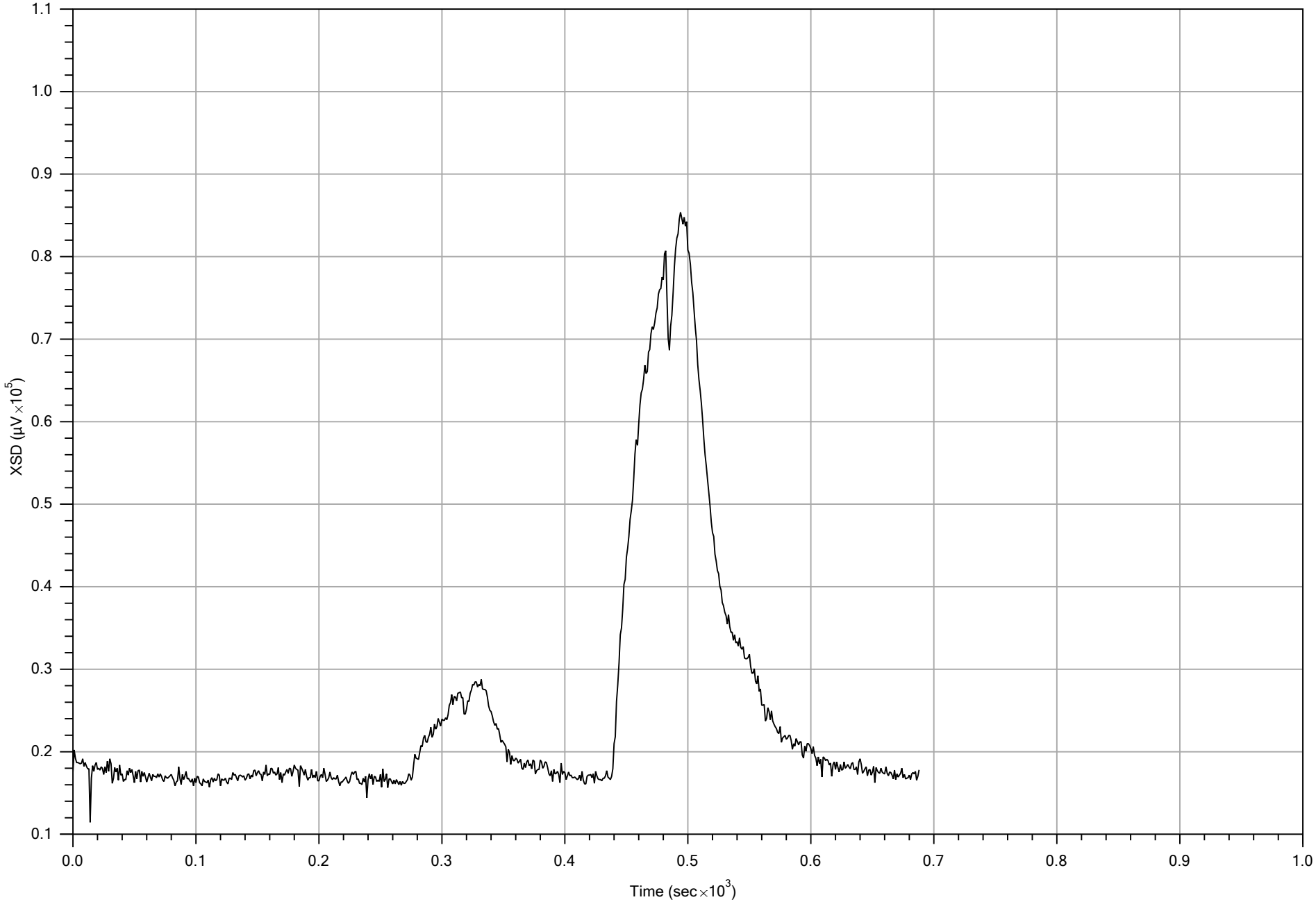
POST-LOG RESPONSE

File: MIP-30.POST.TIM			Date: 4/20/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 43794 µV



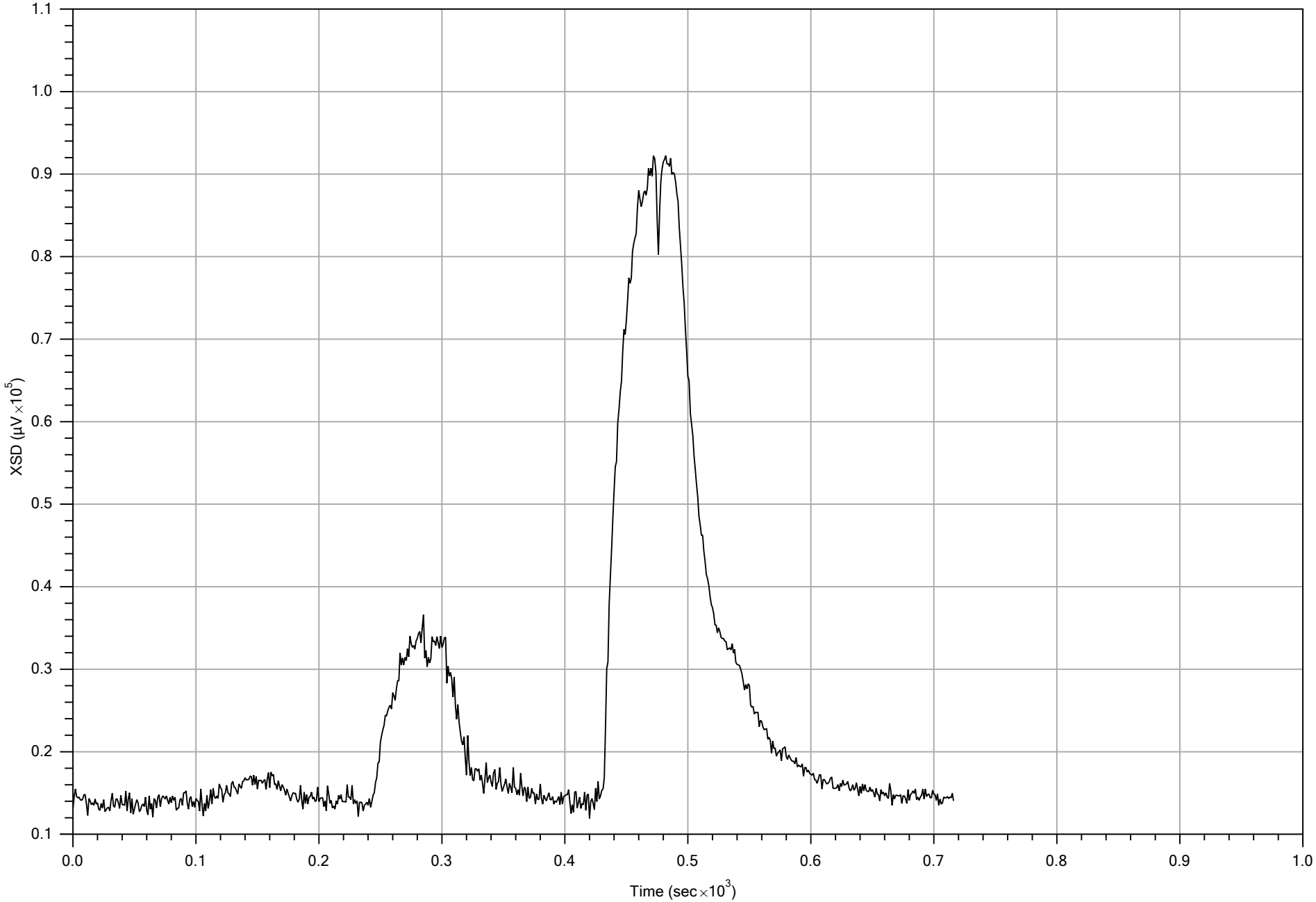
POST-LOG RESPONSE

File: MIP-31.POST.TIM			Date: 4/20/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 42573 µV



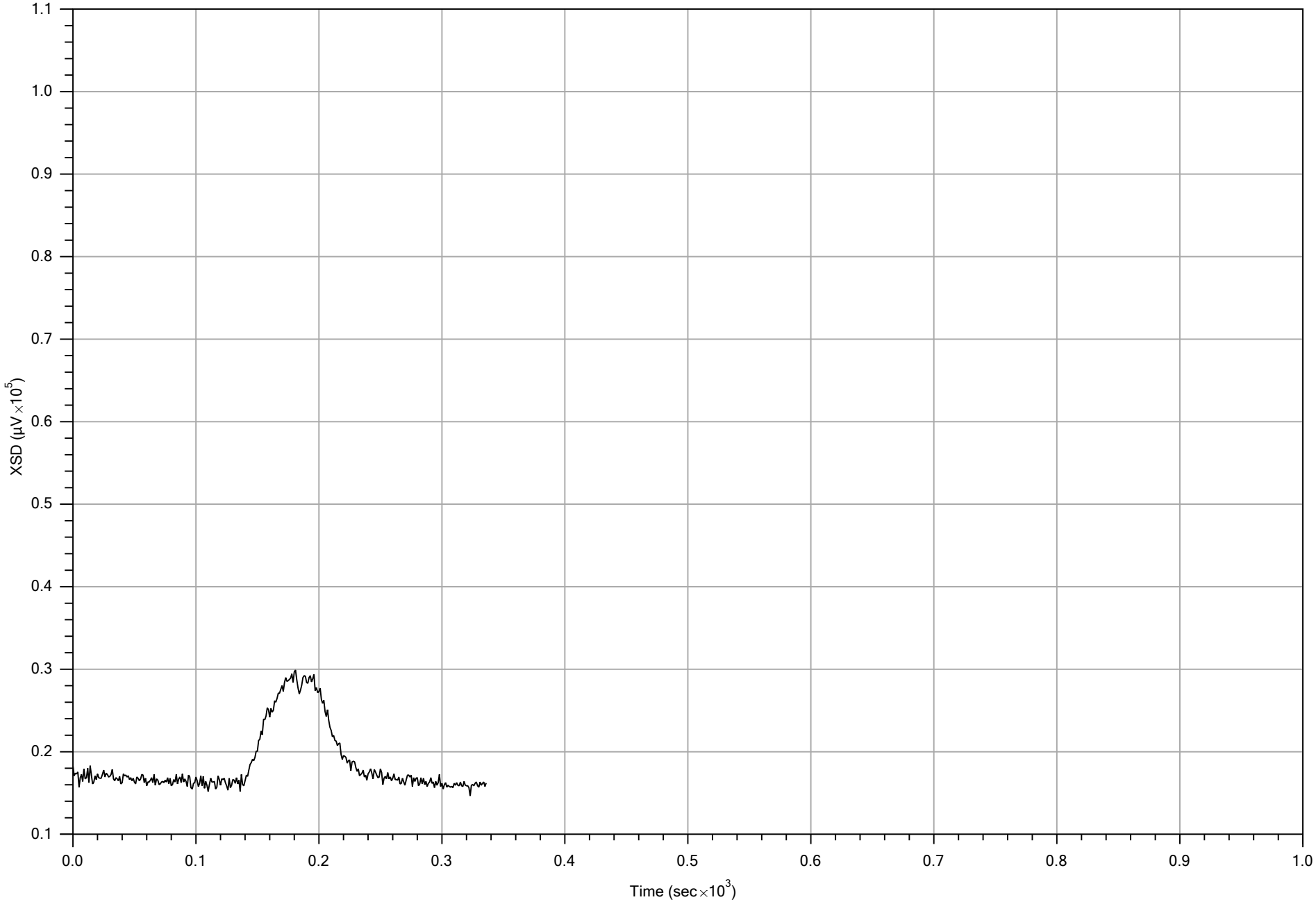
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-32.POST.TIM	Date: 4/20/2012
Project ID: 047-MNDS-12	Client: Golder	Detector: XSD	Concentration: 0.5, 5, 25 ppm
		Compound: TCE	Peak Response: 85376 µV



PRE-LOG RESPONSE

File: MIP-33.PRE.TIM			Date: 4/21/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 92242 µV



POST-LOG RESPONSE

		File: MIP-33.POST.TIM	Date: 4/21/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 29908 µV

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-33.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Sat Apr 21 2012 08:36:19

RESPONSE TEST ATTENUATION CHANGES

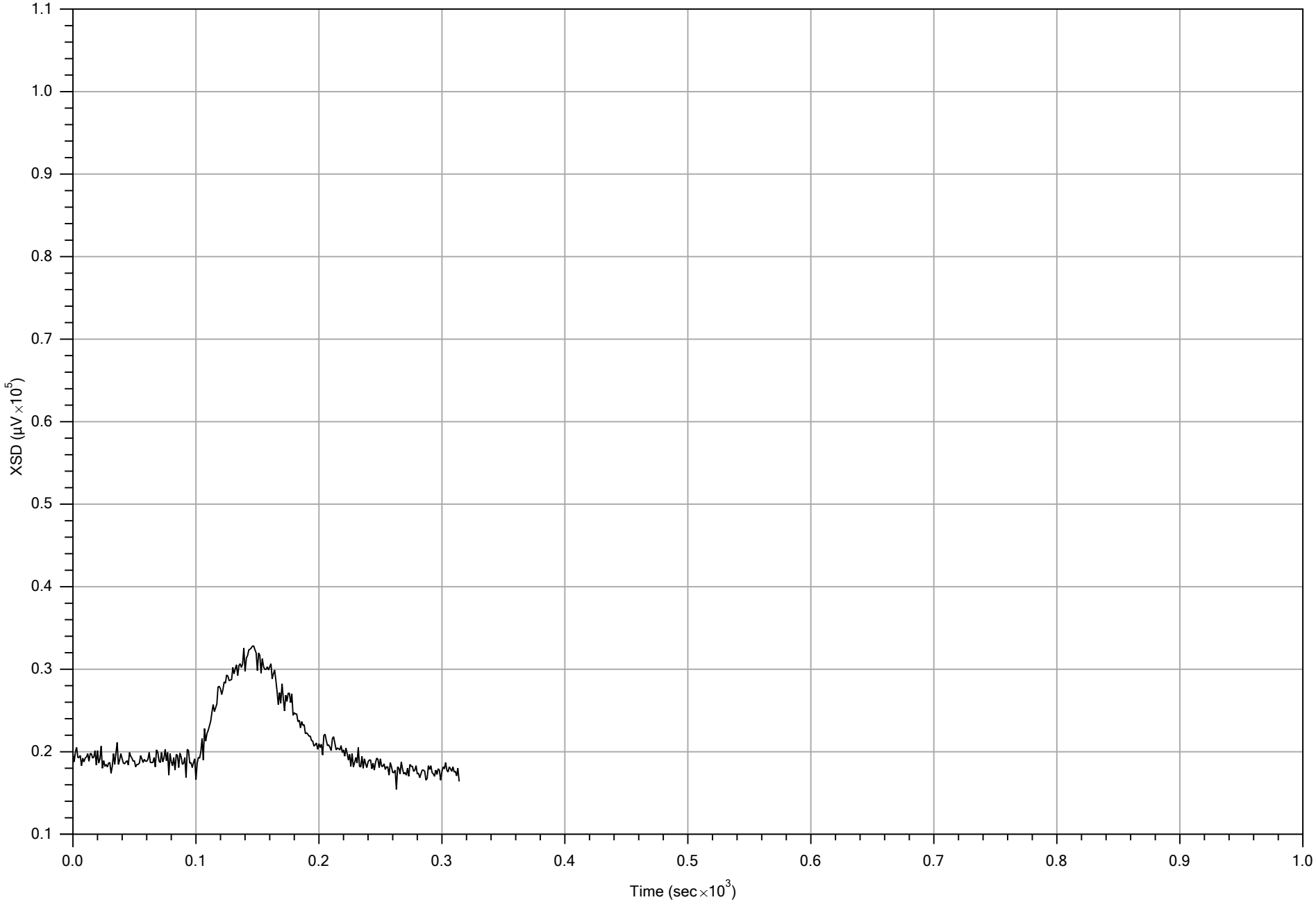
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-33.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Sat Apr 21 2012 10:01:43

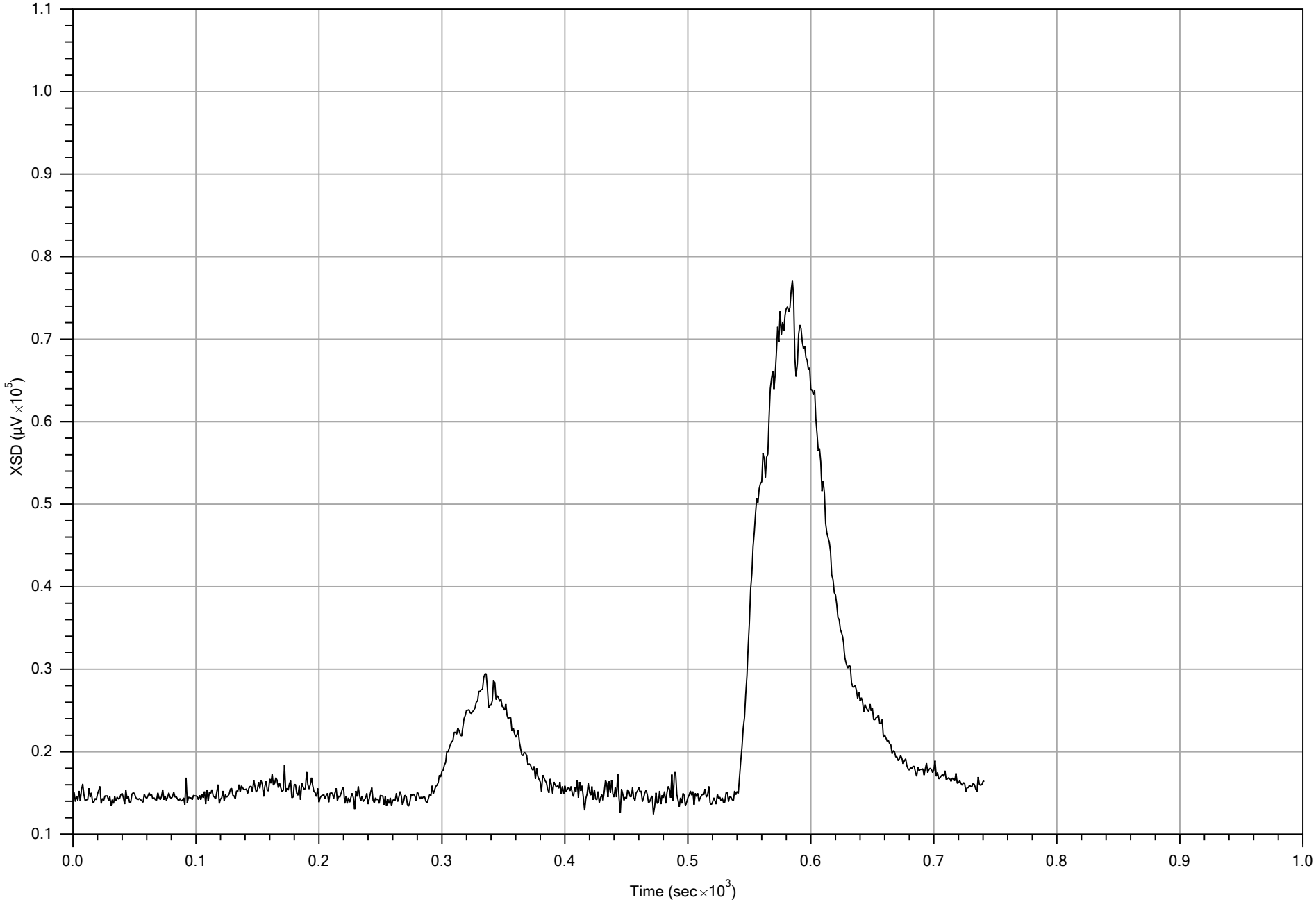
RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



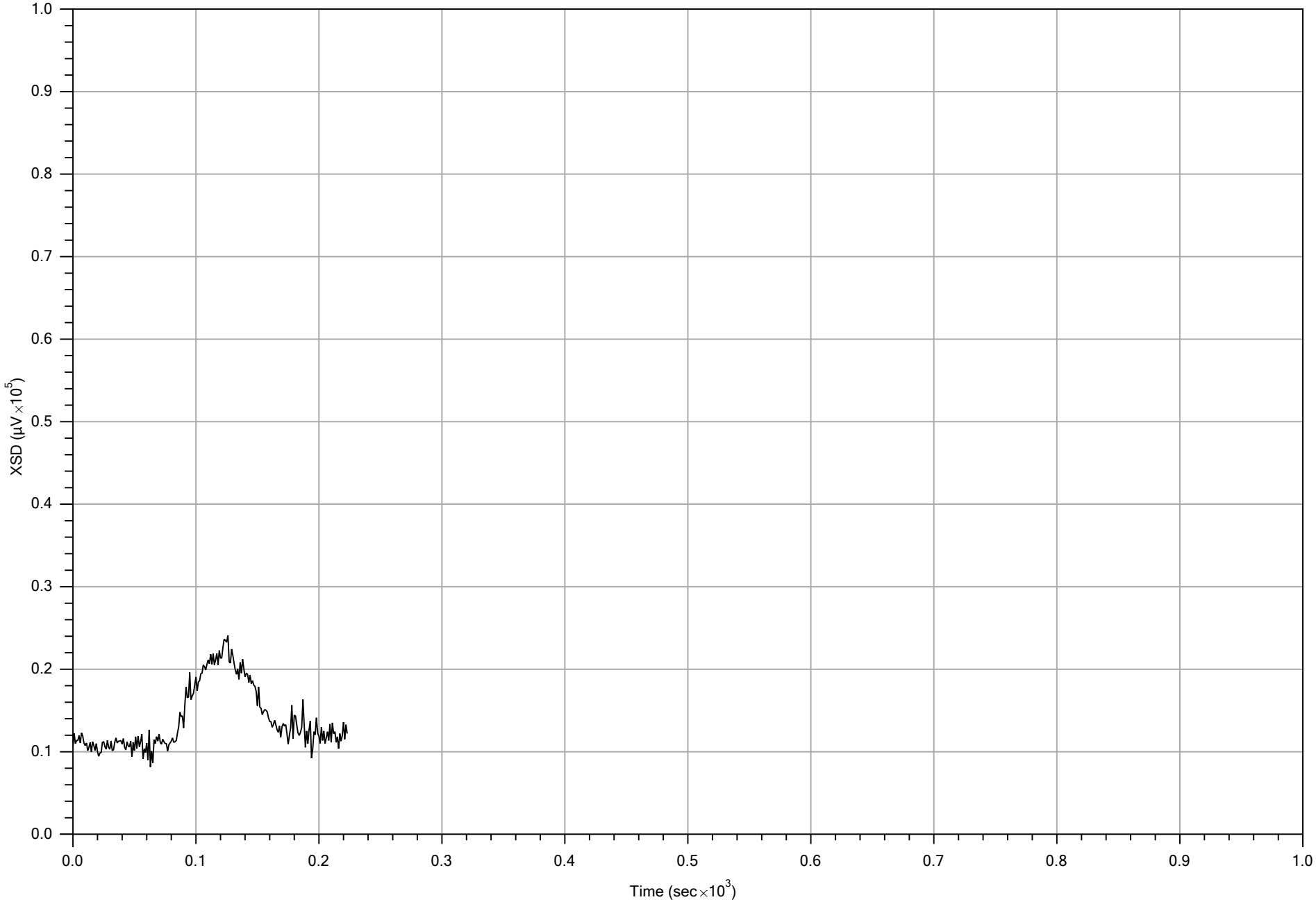
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-34.POST.TIM	Date: 4/21/2012
		Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 32807 µV



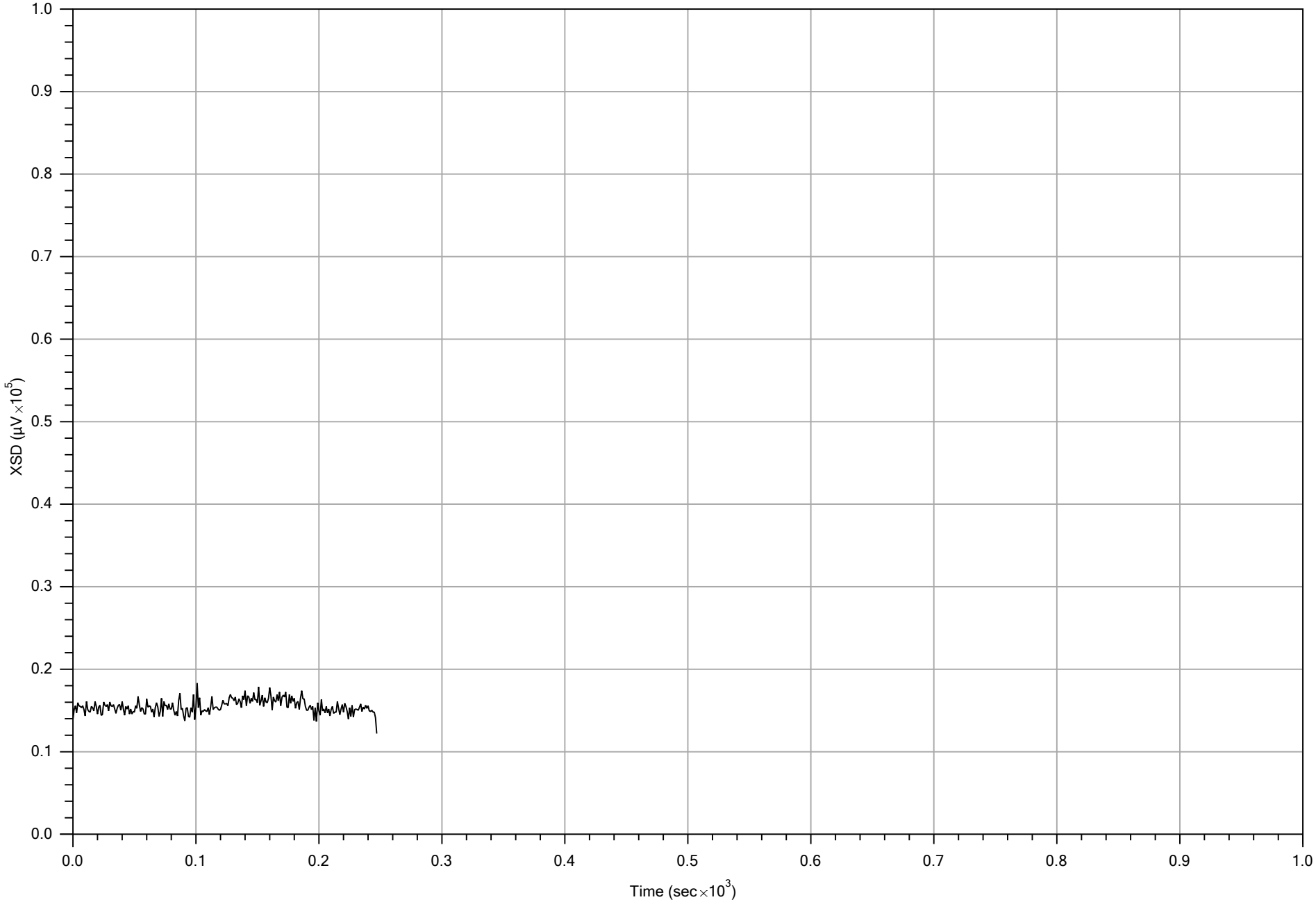
POST-LOG RESPONSE

		File: MIP-35.POST.TIM	Date: 4/21/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 77136 µV



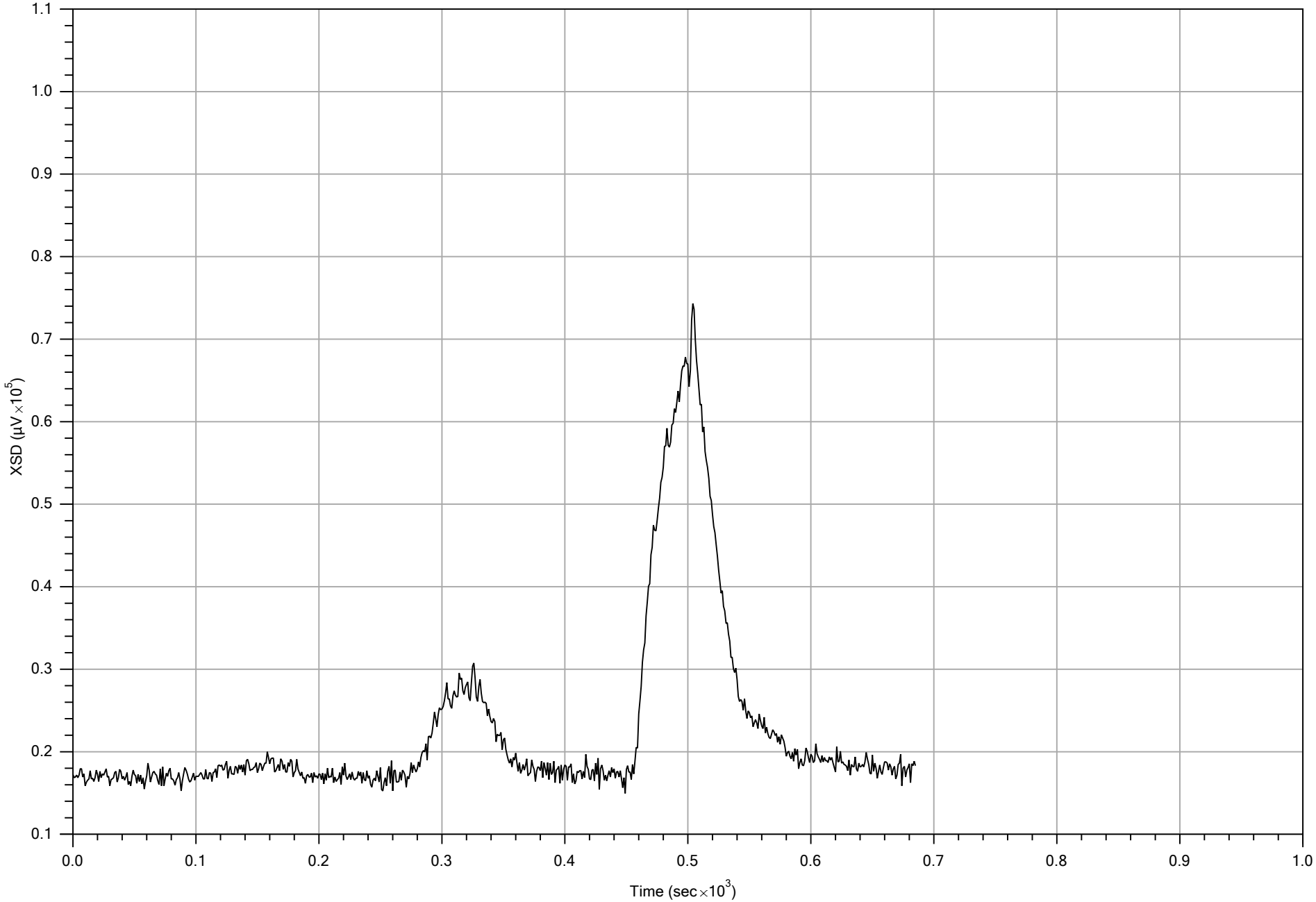
PRE-LOG RESPONSE

File: MIP-36.PRE.TIM			Date: 4/21/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 24110 µV



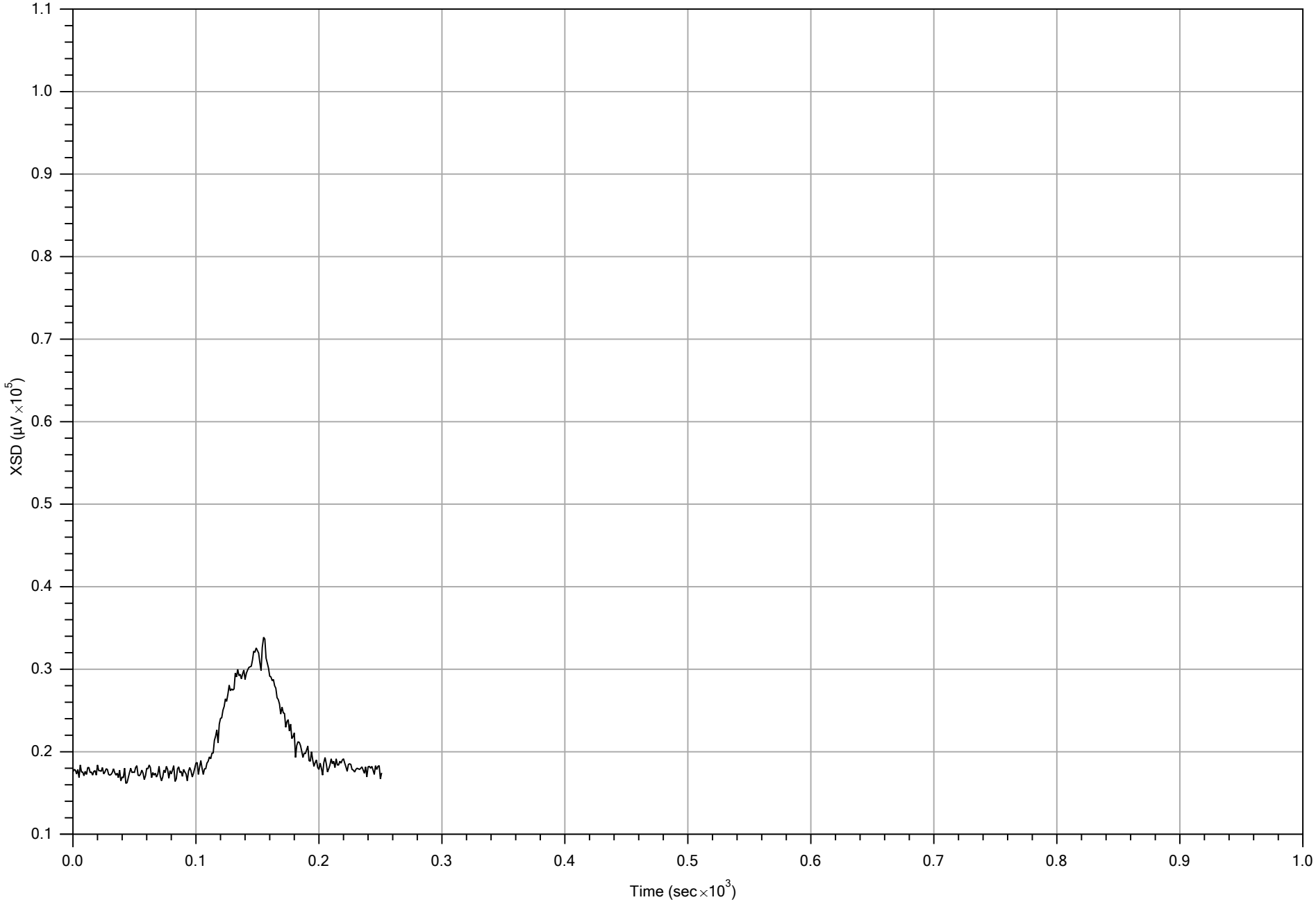
POST-LOG RESPONSE

File: MIP-36.POST.TIM			Date: 4/21/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 18311 µV



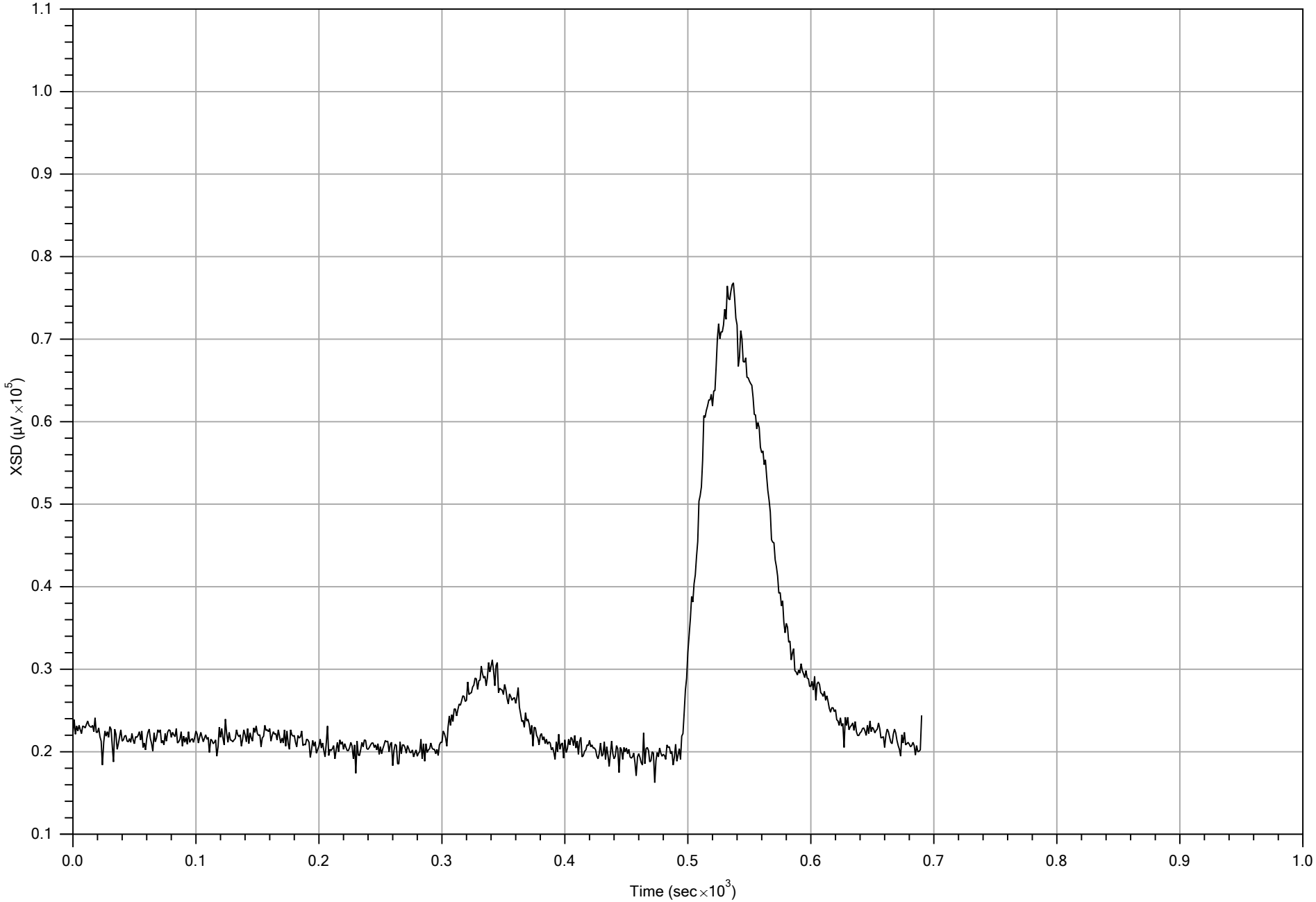
POST-LOG RESPONSE

File: MIP-37.POST.TIM			Date: 4/21/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 74313 µV



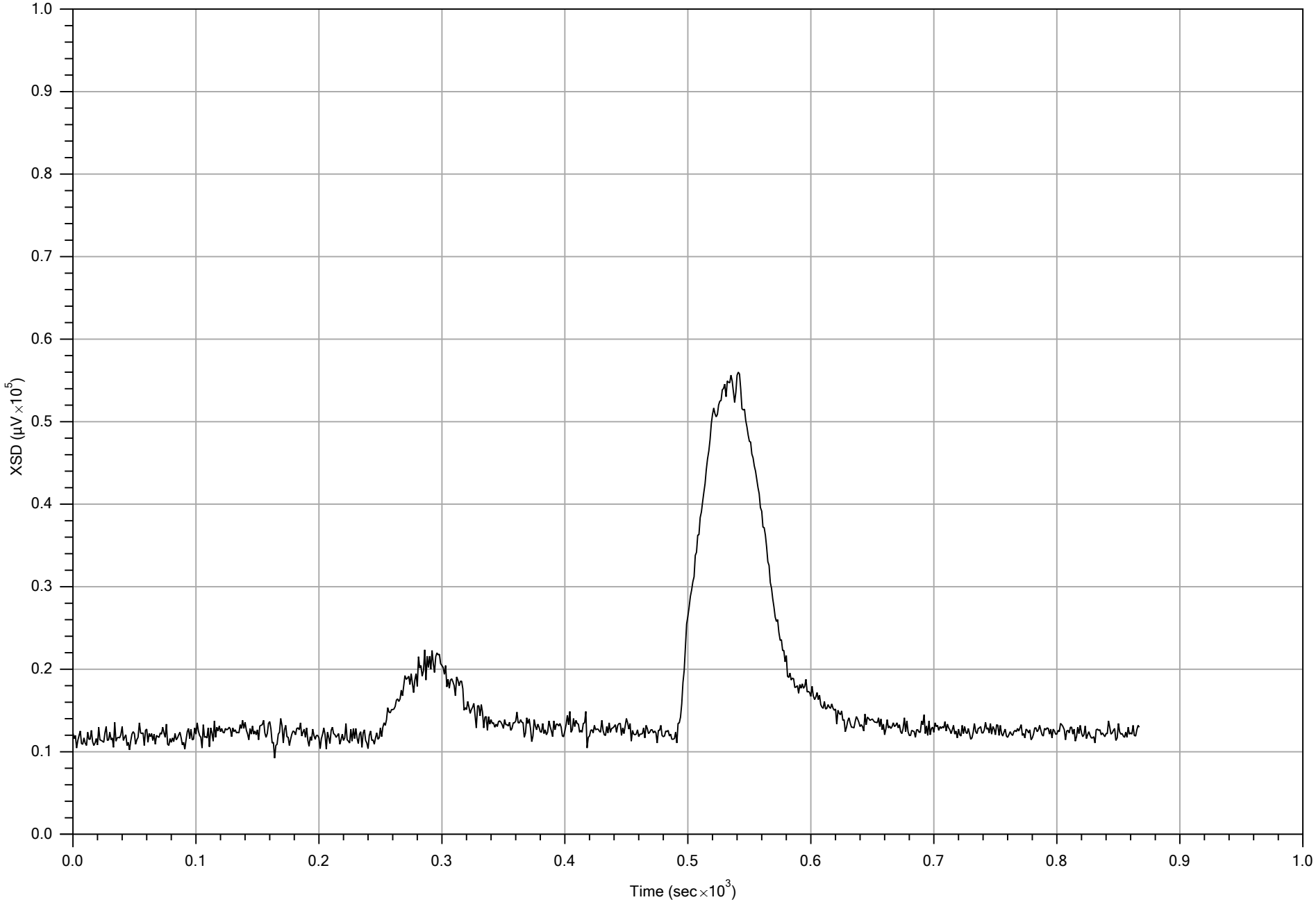
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-38.POST.TIM	Date: 4/21/2012
		Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 33876 µV



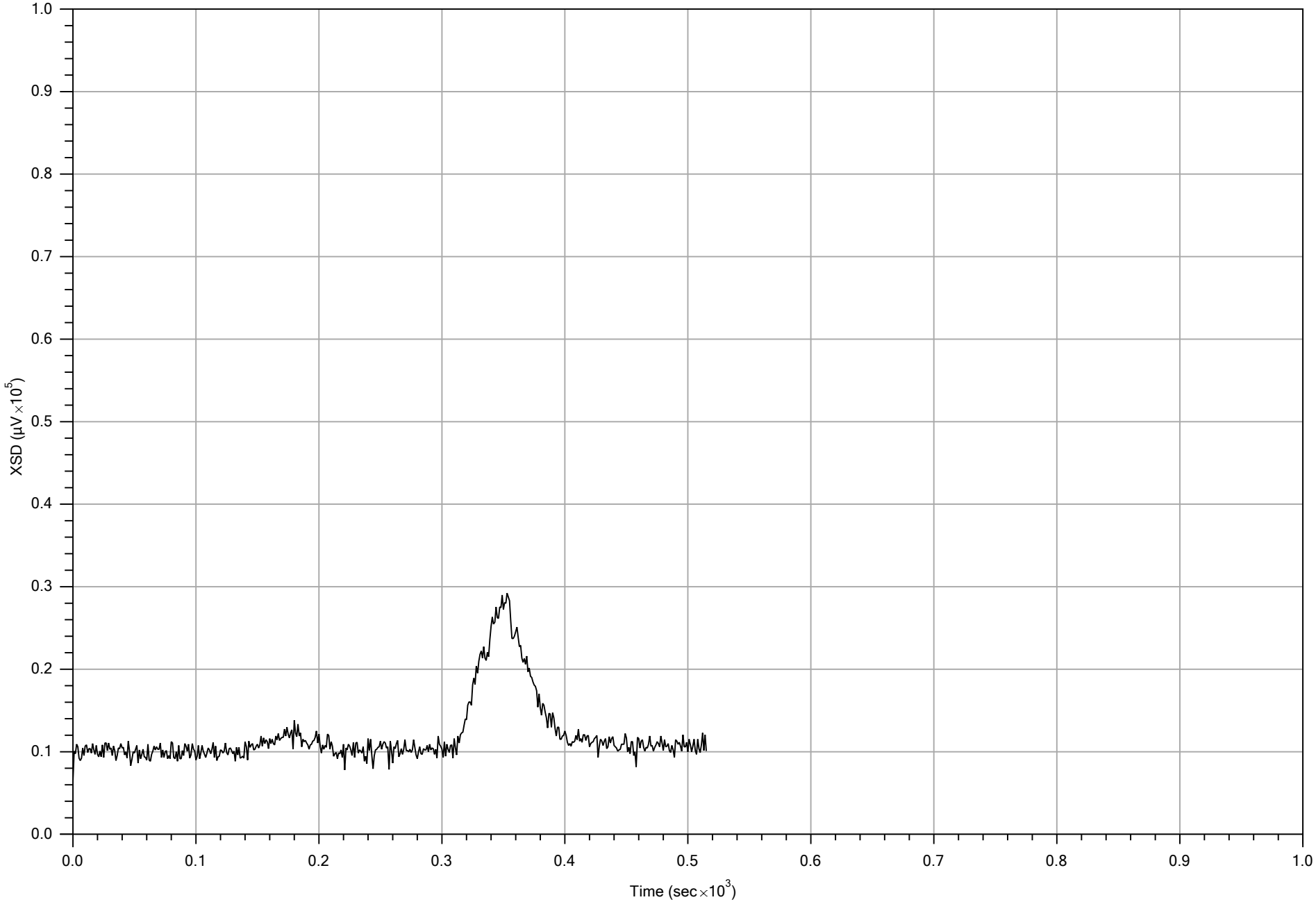
POST-LOG RESPONSE

Company: Matrix	Operator: Mike Jenson	File: MIP-39.POST.TIM	Date: 4/21/2012
Project ID: 047-MNDS-12	Client: Golder	Detector: XSD	Concentration: 0.5, 5, 25 ppm
		Compound: TCE	Peak Response: 76830 µV



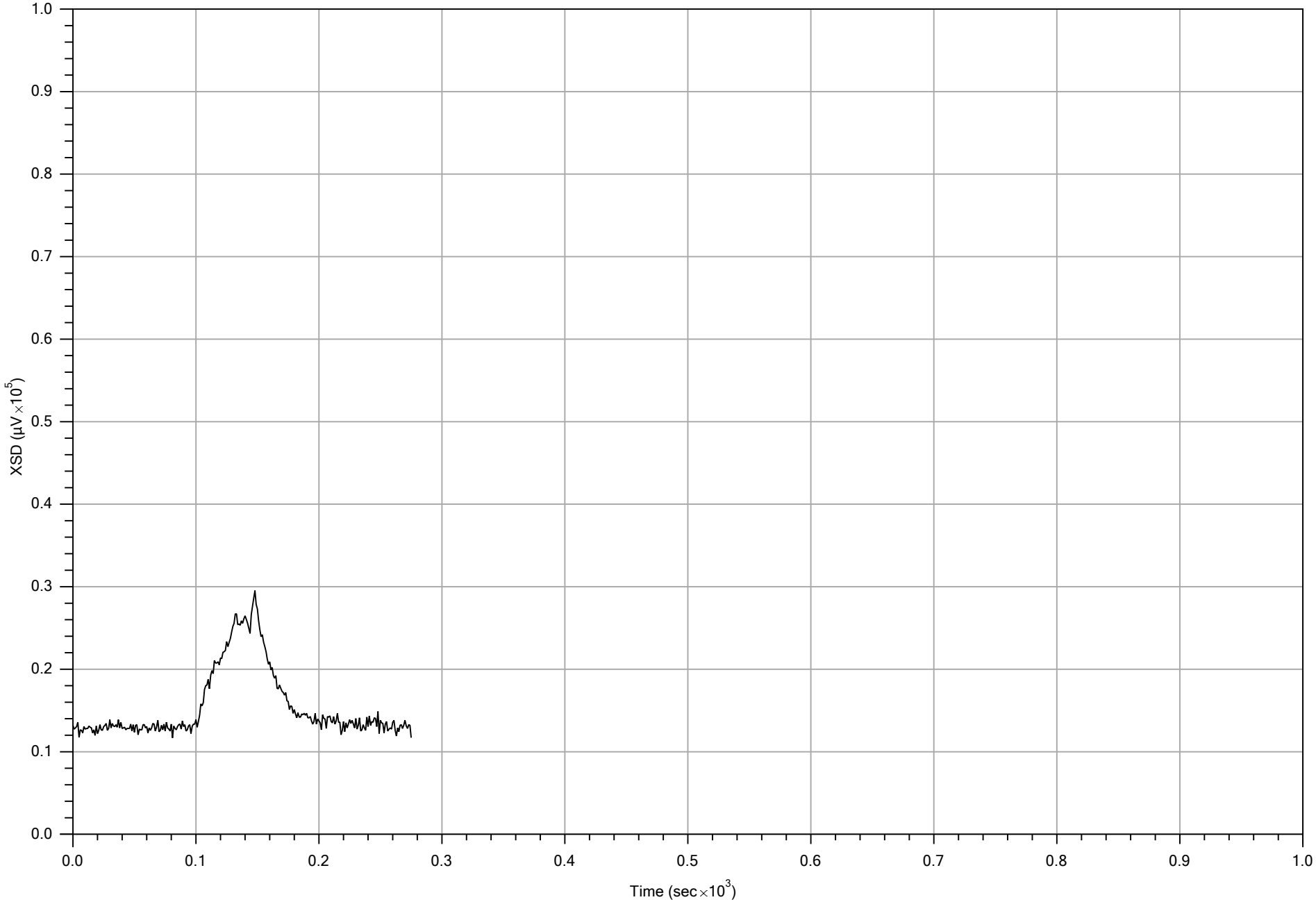
PRE-LOG RESPONSE

File: MIP-40.PRE.TIM			Date: 4/23/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 56001 µV



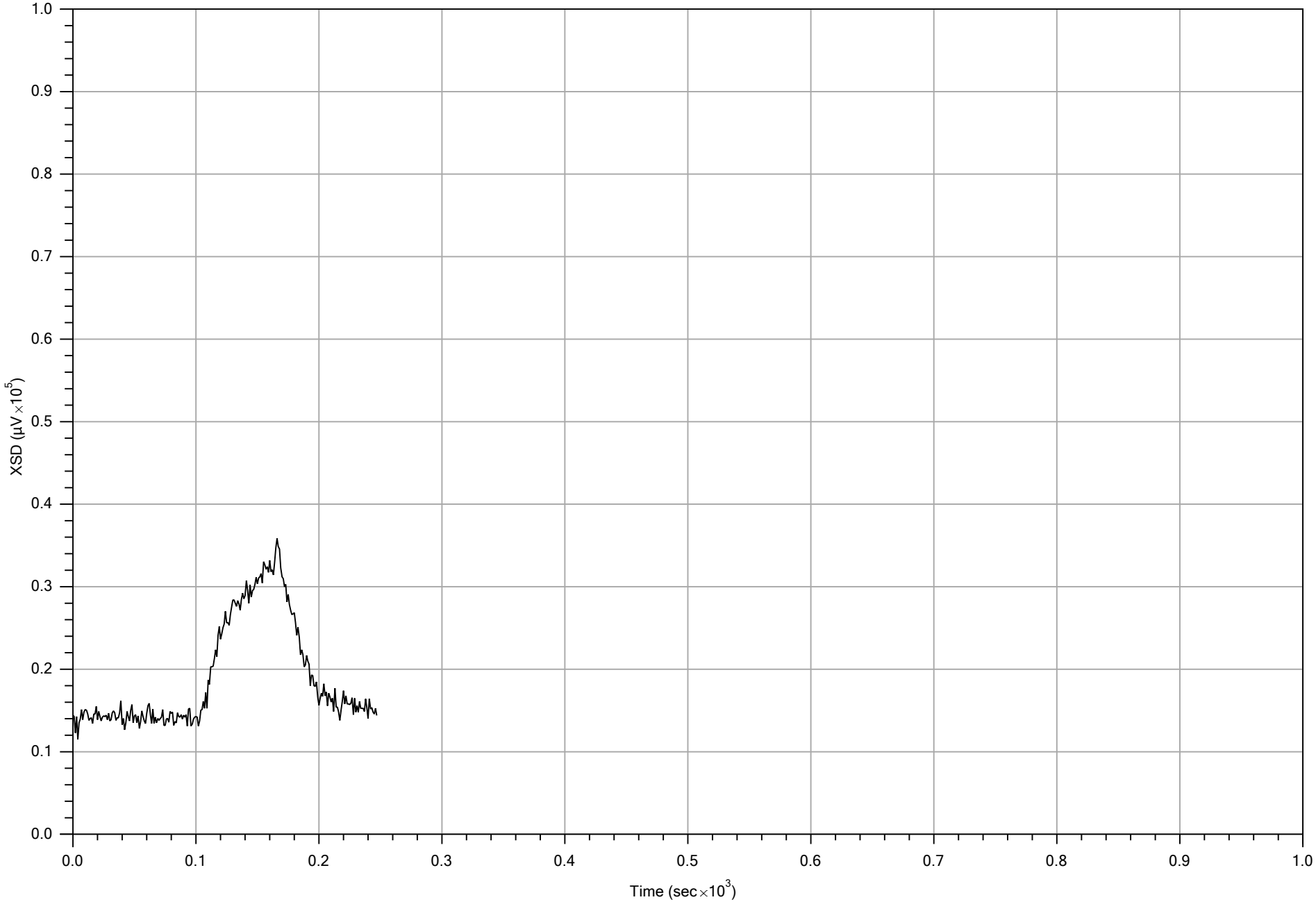
POST-LOG RESPONSE

		File: MIP-40.POST.TIM	Date: 4/23/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 29221 µV



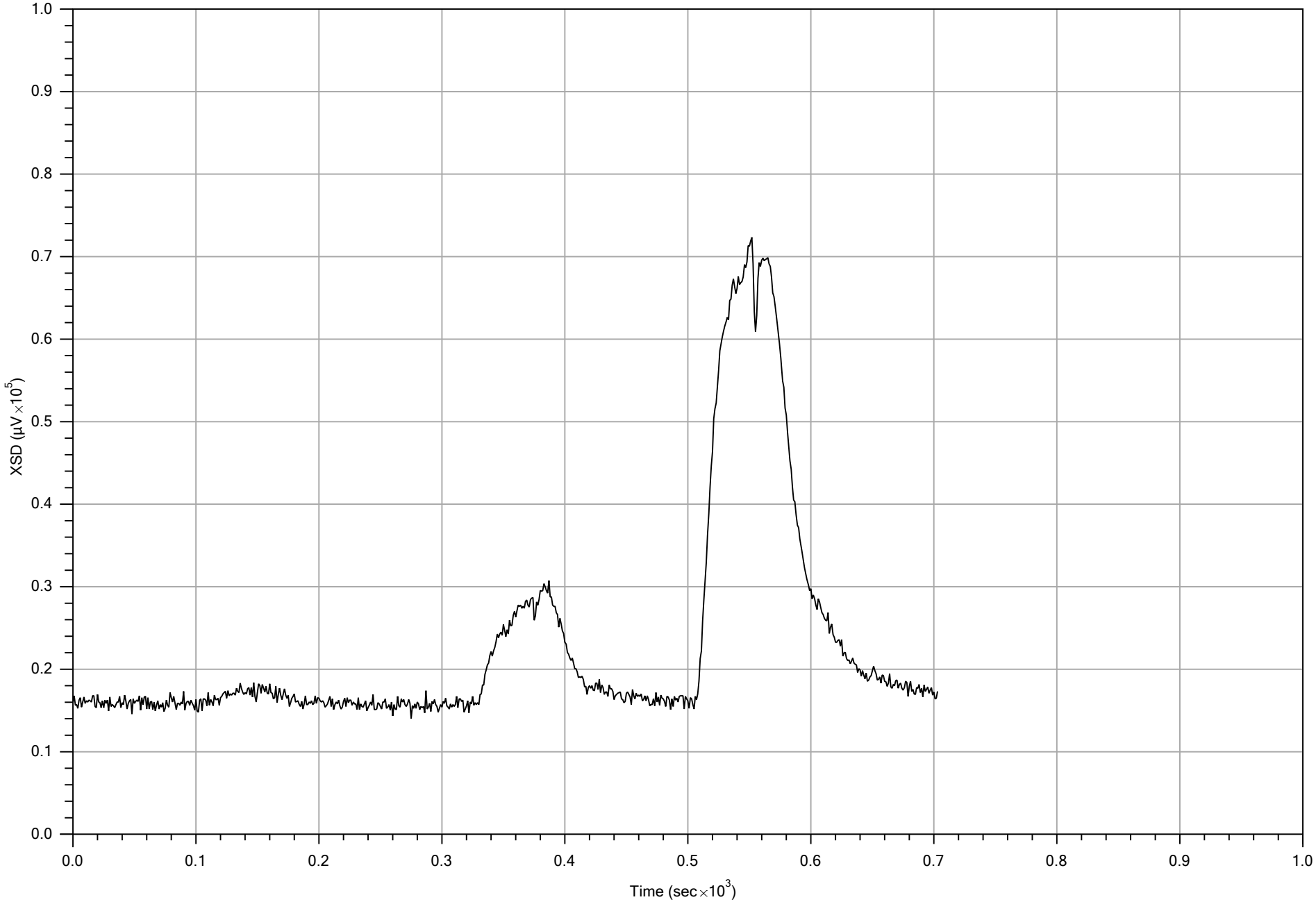
POST-LOG RESPONSE

		File: MIP-41.POST.TIM	Date: 4/23/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 29527 µV



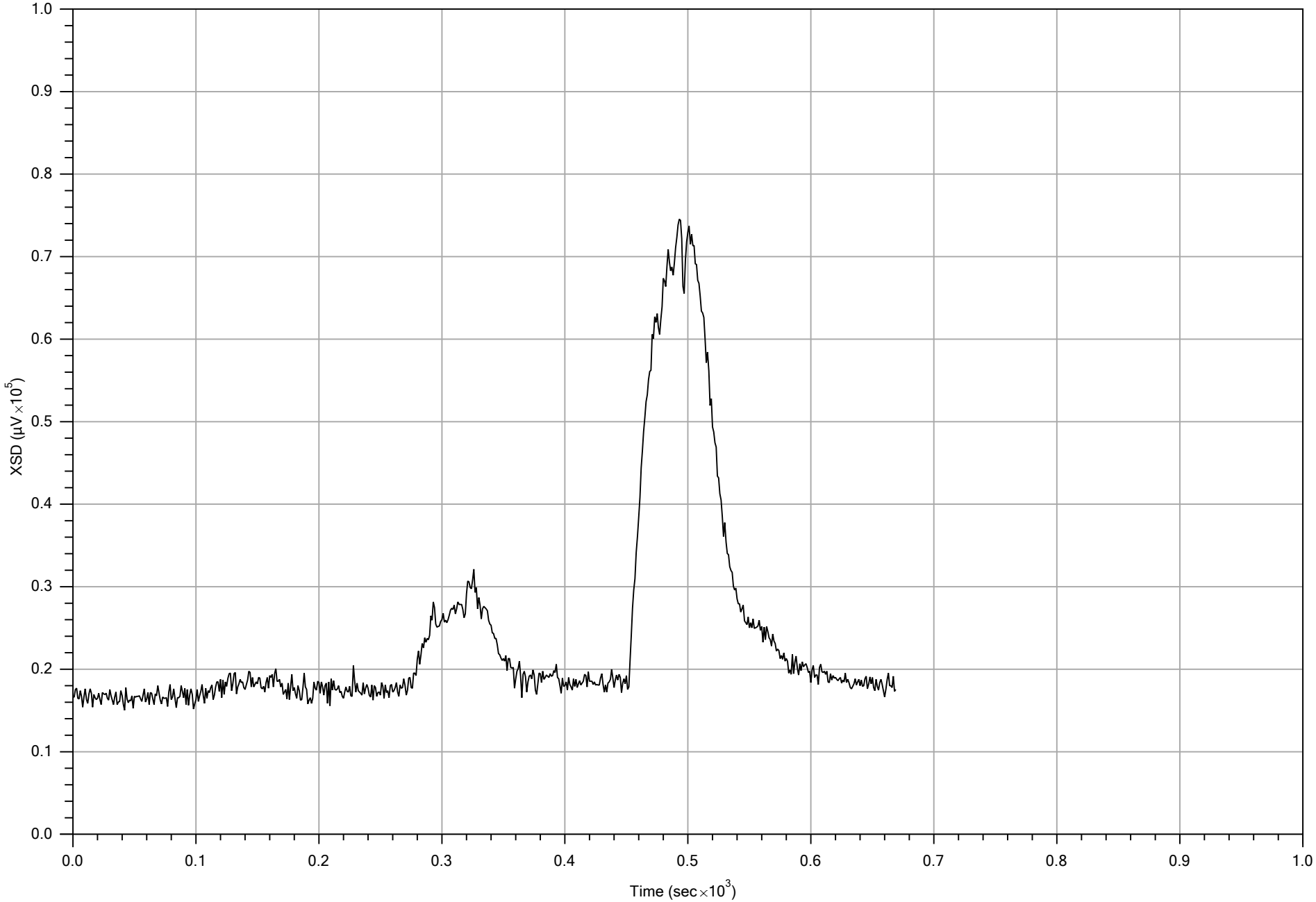
POST-LOG RESPONSE

File: MIP-42.POST.TIM			Date: 4/23/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 35859 µV



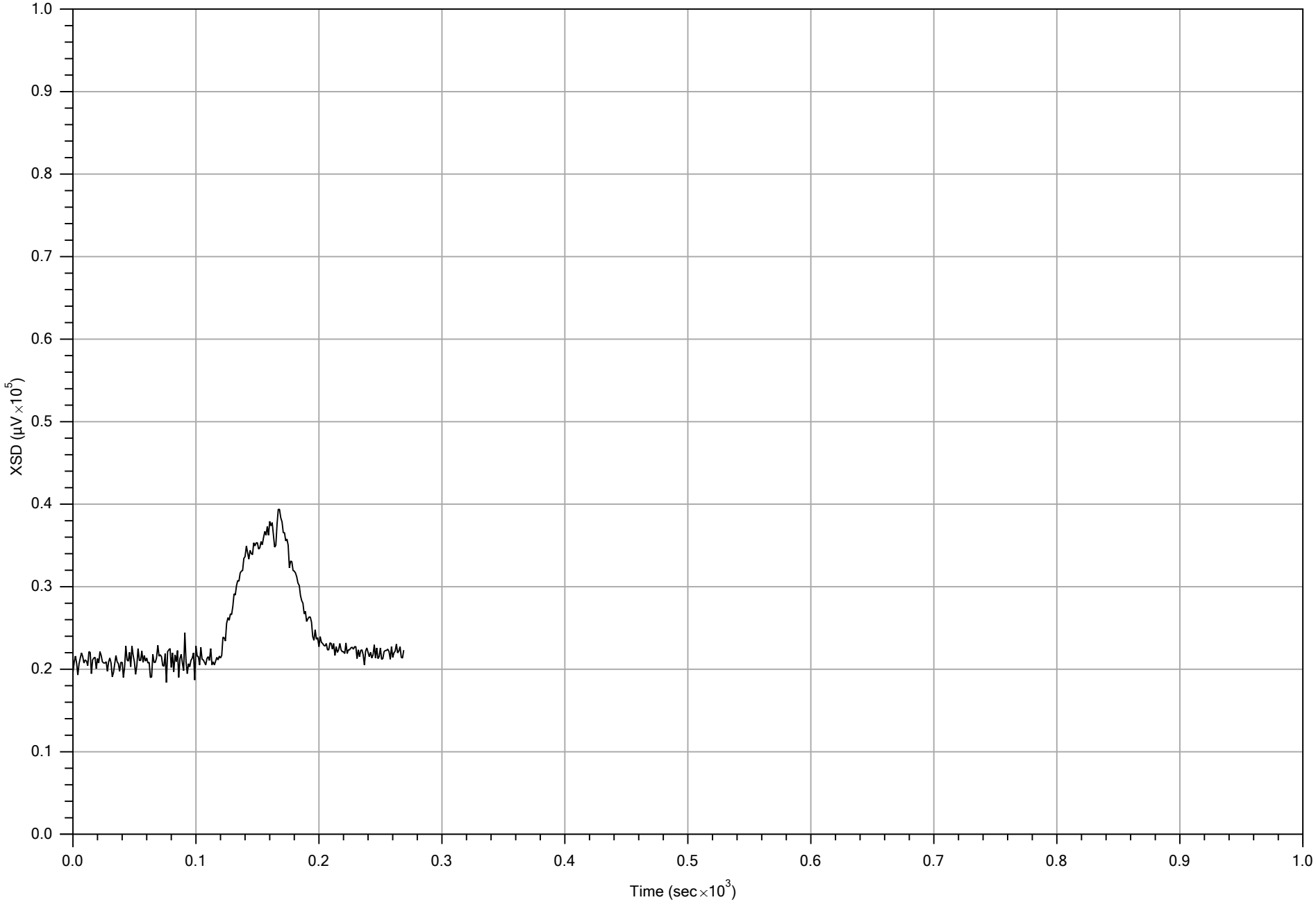
POST-LOG RESPONSE

		File: MIP-43.POST.TIM	Date: 4/23/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 72329 µV



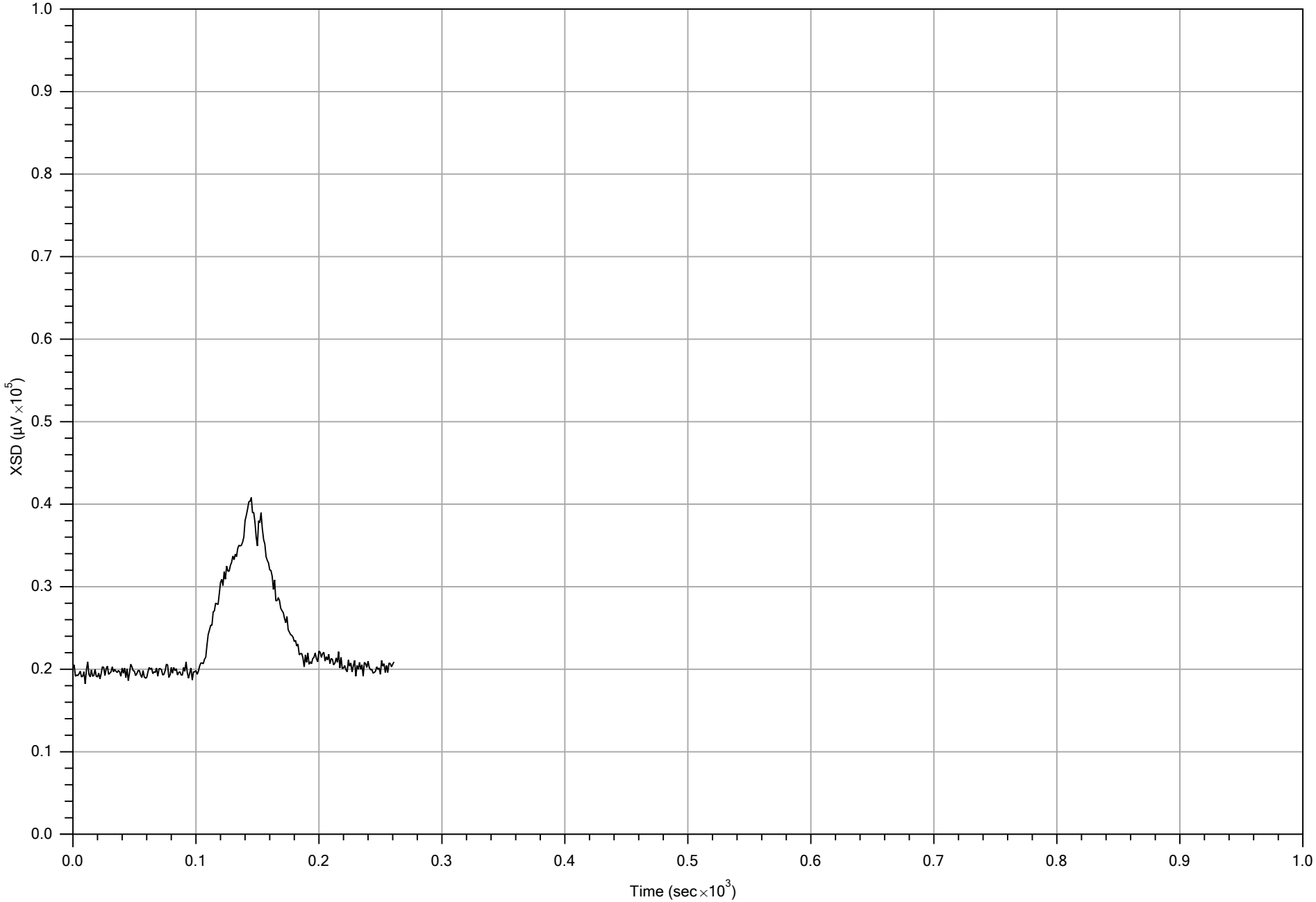
PRE-LOG RESPONSE

File: MIP-44.PRE.TIM			Date: 4/23/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 74541 µV



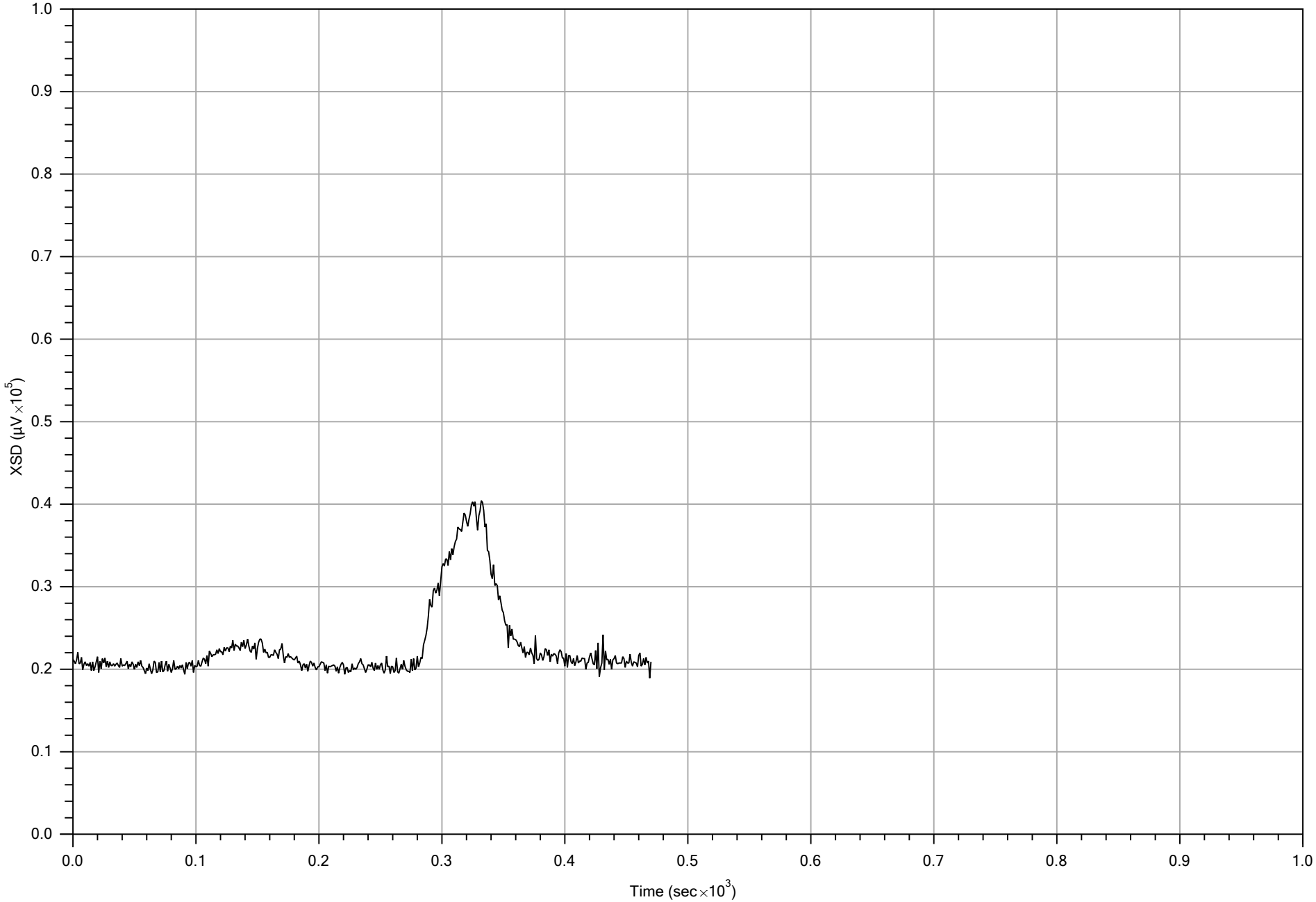
POST-LOG RESPONSE

File: MIP-44.POST.TIM			Date: 4/23/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 39369 µV



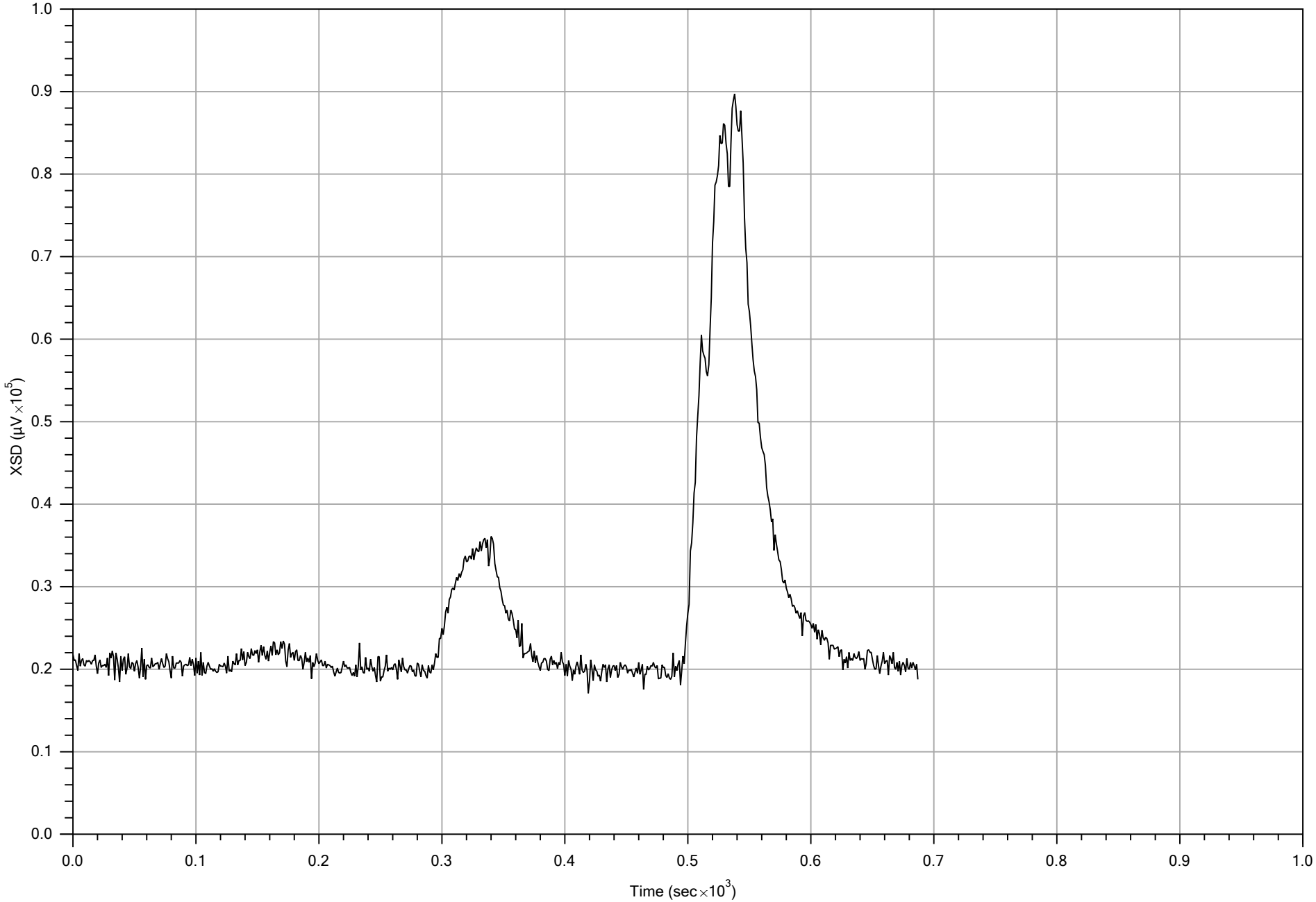
POST-LOG RESPONSE

File: MIP-45.POST.TIM			Date: 4/23/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 40819 µV



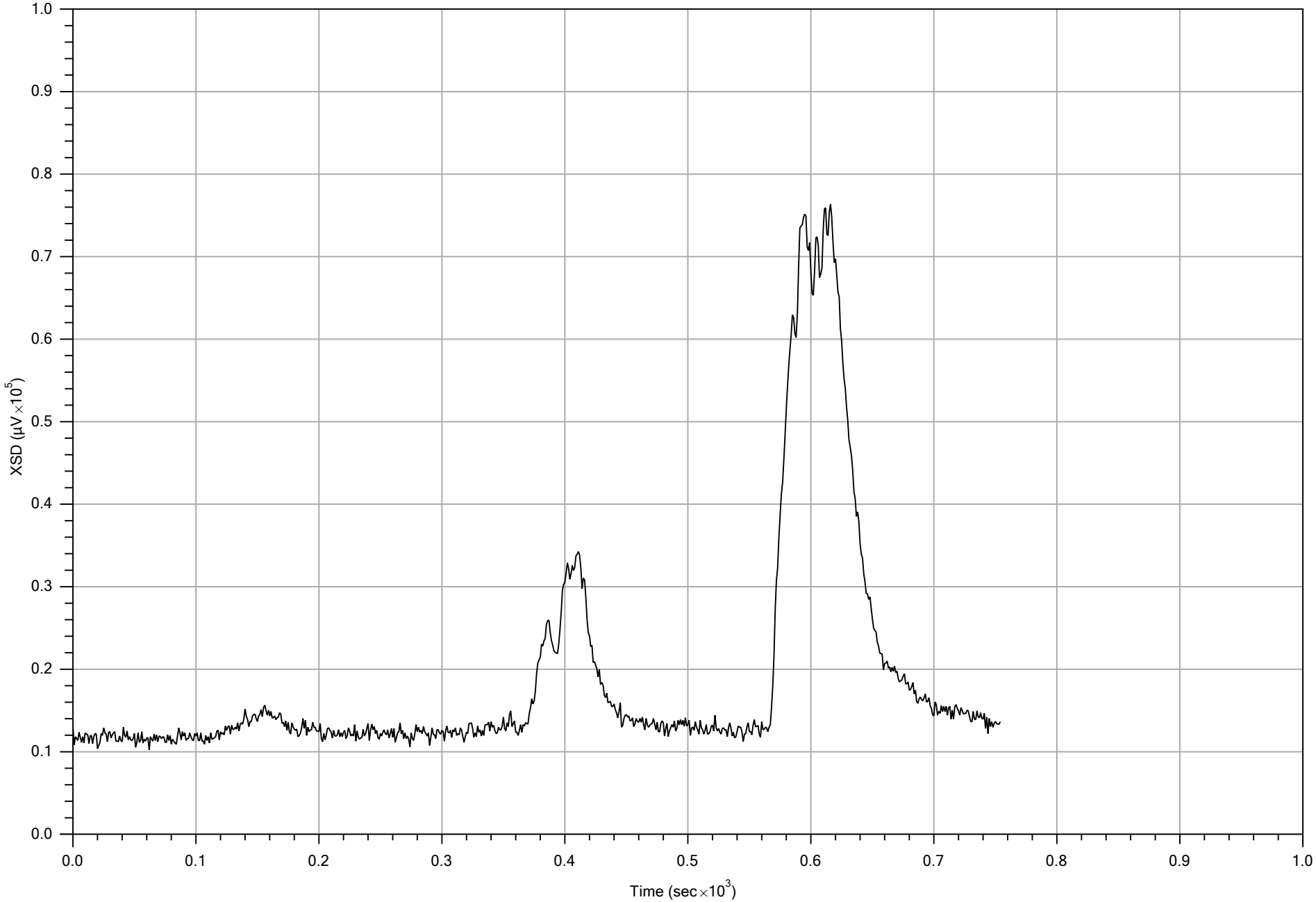
POST-LOG RESPONSE

File: MIP-46.POST.TIM			Date: 4/23/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 40437 µV



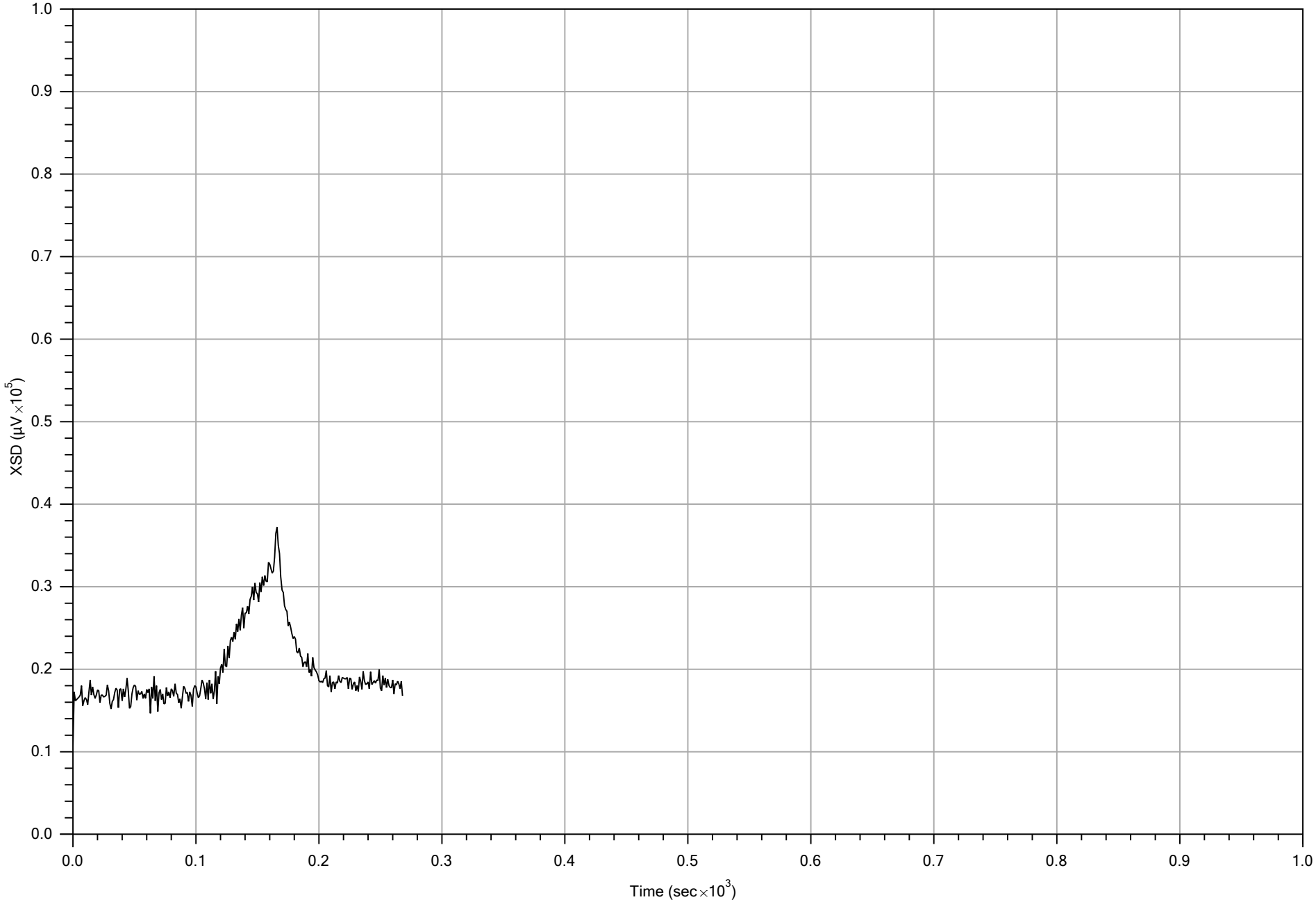
POST-LOG RESPONSE

File: MIP-47.POST.TIM			Date: 4/23/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 89724 µV



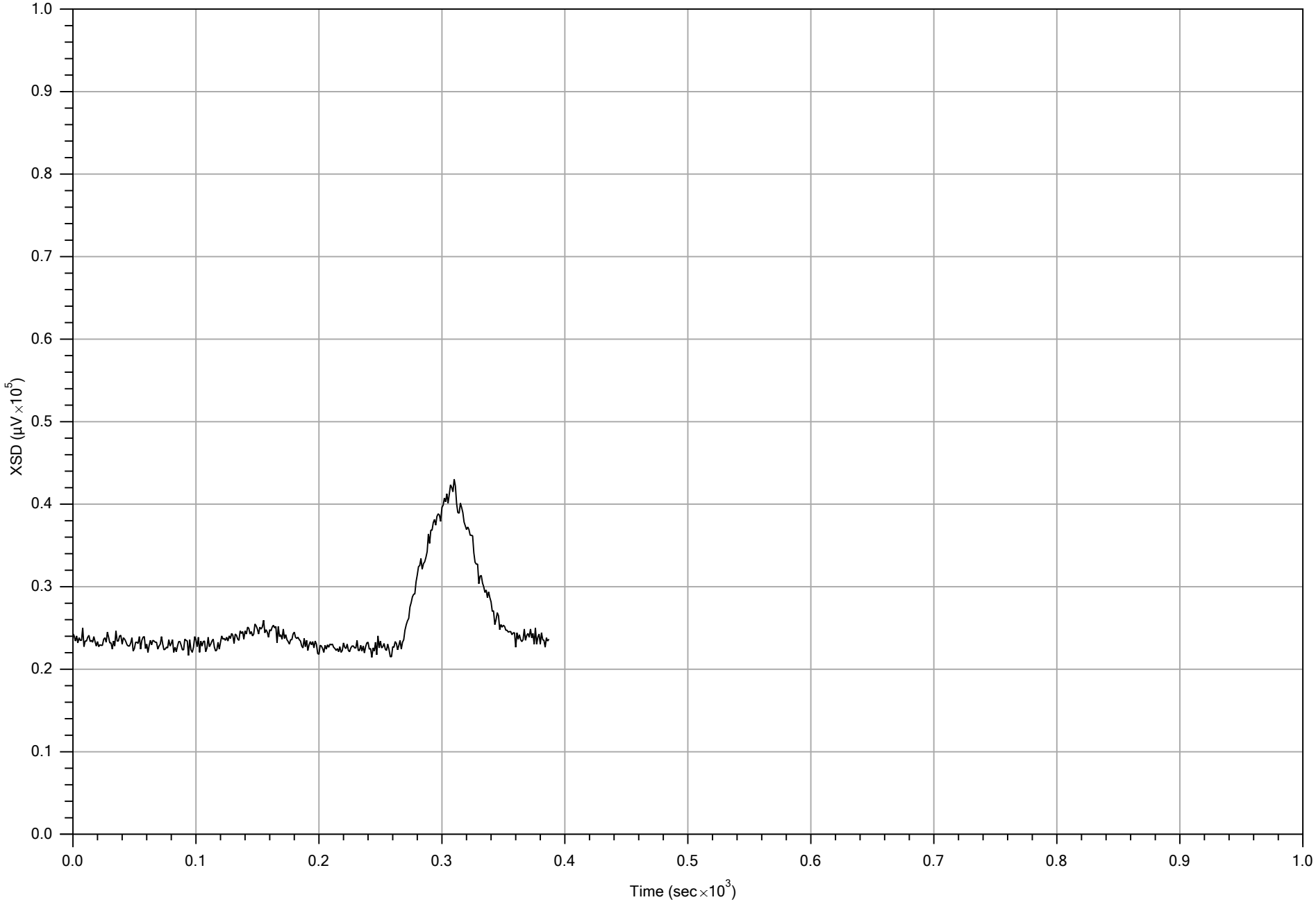
PRE-LOG RESPONSE

File: MIP-48.PRE.TIM			Date: 4/24/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 76373 µV



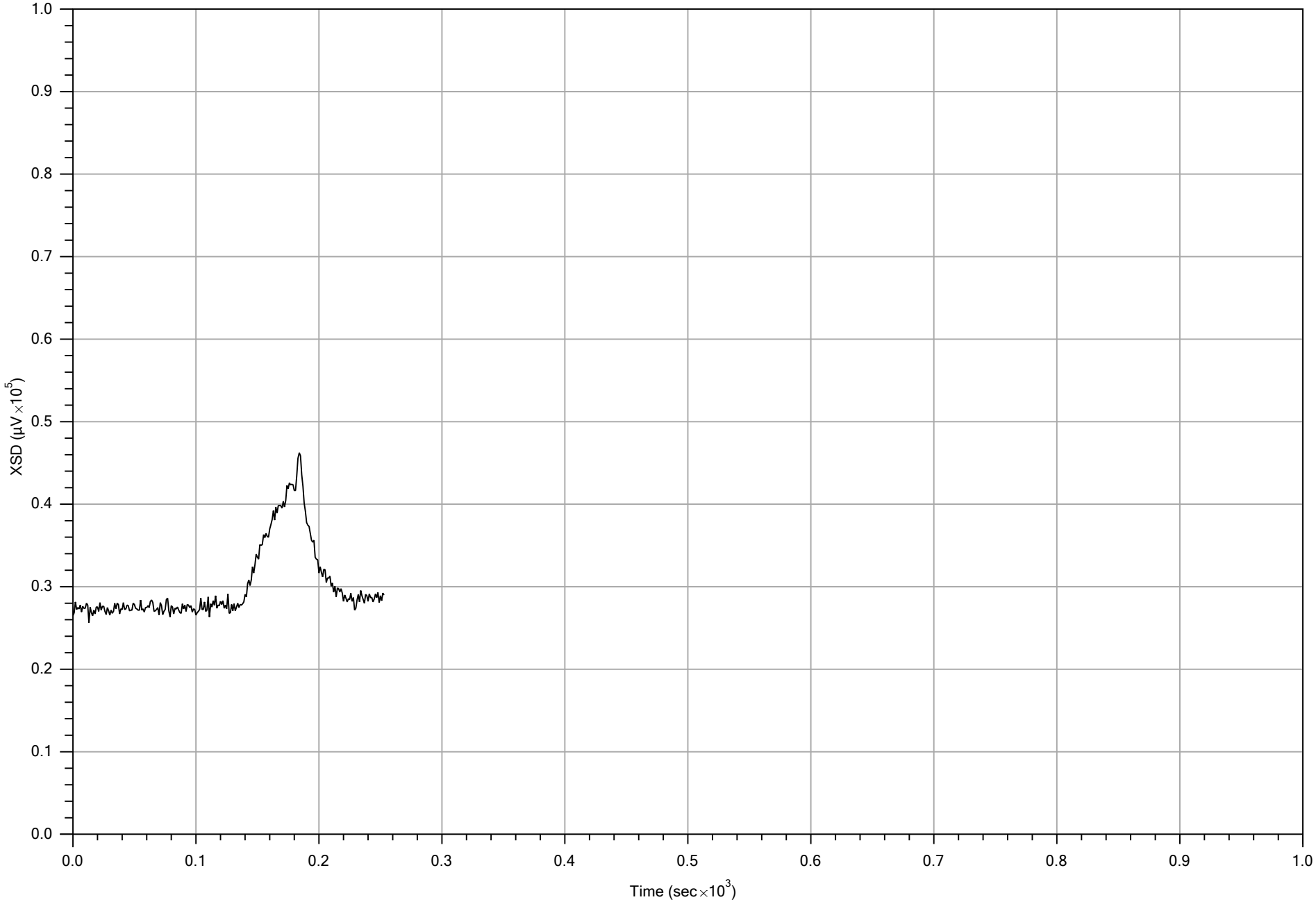
POST-LOG RESPONSE

File: MIP-48.POST.TIM			Date: 4/24/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 37233 µV



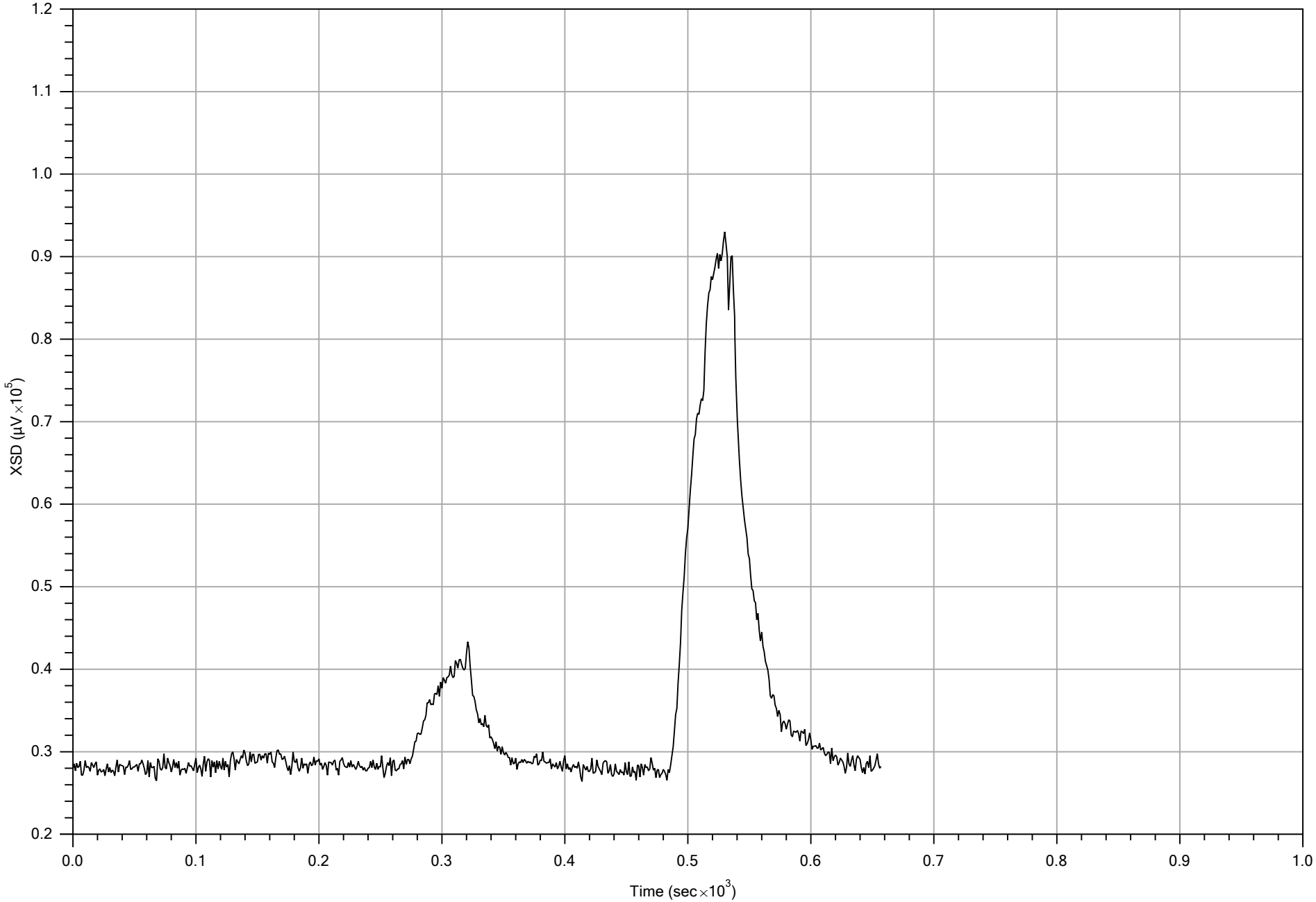
POST-LOG RESPONSE

File: MIP-49.POST.TIM			Date: 4/24/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 43031 µV



POST-LOG RESPONSE

File: MIP-50.POST.TIM			Date: 4/24/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 46236 µV



POST-LOG RESPONSE

		File: MIP-51.POST.TIM	Date: 4/24/2012
Company: Matrix	Operator: Mike Jenson	Detector: XSD	Concentration: 0.5, 5, 25 ppm
Project ID: 047-MNDS-12	Client: Golder	Compound: TCE	Peak Response: 93005 µV

Wednesday, November 21, 2012

11253 91st Ave N.
Maple Grove, MN 55369
763-424-4803
FAX: 763-424-9452

-Direct Sensing Report, MIP-

Client:	**Golder Associates**
Project Name:	**Electrolux**
Location:	**Jefferson, IA**
Project Number:	**131-MNDS-12MIP**

The analysis and opinions expressed in this report are based upon data obtained from the samples collected at the indicated locations and from other information discussed in this report. Exceptions, if any, are discussed in the accompanying comments section of this report. This report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted laboratory practices. Reported results shall not be reproduced, except in full, without written approval of Matrix Environmental, LLC. The sample results relate only to the analytes of interest tested. No warranties, expressed or implied are intended or made.

I certify that the data contained in this final report has been generated and reviewed in accordance with approved methods and our Standard Operating Procedure. Release of this final report is authorized by Laboratory management, which is verified by the following signature.

Approval Signature _____ Date 11/26/12

MIP SYSTEM DESCRIPTION AND ON-SITE CHEMICAL ANALYSIS

VOCs are semi-quantitatively analyzed in-situ using a membrane interface probe (MIP). The probe is pushed into the ground at a rate of 1 foot per minute (including 45 second residence time). The membrane block heats to a temperature of approximately 121°C. Any volatile organic compounds present diffuse across the membrane into the trunkline carrier gas tubing and are brought to the surface and into the GC analytical system. The carrier gas containing samples from the subsurface then passes through a naphion dryer (if used) and a heated GC oven to remove any moisture prior to detector analysis. Compounds appropriate for the detectors and in high enough concentrations (about 1 ppm or higher for Standard MIP and about 100 ppb or higher for Low Level MIP) will produce an electrical signal which is analyzed.

The GC system is comprised of the following three detector system – a PID/FID tandem and XSD detector. The MIP's trunkline return gas is Y-split in the GC to accomplish this detector configuration. The PID has a 10.0 eV lamp and will ionize multiple-bonded petroleum or halogenated hydrocarbons with an ionization potential less than the 10.0 eV. The FID will respond to all types of hydrocarbons including methane or halogenated hydrocarbons (generally the FID response gives a good indication of total hydrocarbons present.) The XSD responds to halogenated compounds.

Electrical Conductivity (EC) is a measure of the soils ability to conduct an electrical current between two dipoles on the MIP/EC probe. Conductivity is the reciprocal of electrical resistivity and has the units (in our application) of millisiemens per meter (mS/m). Since soil is in the pathway of the charge flow, the grain size can be determined by comparing the EC log to a soil boring. Conductivity readings in the 100s indicate smaller grain (size such as clay). Larger grain size (sand and gravels) are typically in the 10s of mS/m range. Prior to every log the EC point of the MIP probe is checked for proper operation by performing a voltage test with a voltage meter and a conductivity test with a test block.

Since the MIP system is a screening tool, some laboratory analysis of soil or groundwater samples or some historical analytical data is needed in order to obtain optimum MIP log correlation. The following quality assurance/control measures are routinely conducted to ensure the validity of the analytical results:

Chemical Response Test: MIP data needs to be validated with passing QC at the beginning and end of every log. The probe is immersed into a 500 mL cylinder of water containing the compound(s) of interest. This test will be performed at multiple concentration levels at the beginning of each day to verify detector response and generate detection limits of the system (For example: 3 levels of TCE @ 1, 5, & 25 ppm). QC tests of at least one level are checked between each boring to determine system integrity and monitor membrane and detector fluctuations. The results of this are listed in the QA/QC report.

Butane response: May be run between each boring by dispensing butane over the membrane. Measuring the lag time of the carrier gas from the probe to the detectors is used to determine trip time and to verify FID detector response.

Continuity check: Performed before and after each boring to verify system continuity throughout the project for the electrical conductivity data.

DISCUSSION AND COMMENTS

Matrix performed chemical response tests at 1, 5, and 25 ppm TCE at various times throughout the project. At a minimum, a one level response test was performed before or after each log on the MIP system (PID/FID/XSD). The response tests appeared normal and were indicative of a functional MIP system. Some post-log QC test were use for the sequential MIP logs pre-log QC tests if this log immediately followed.

For each log, the probe was advanced one foot and then the probe was allowed residence time of 45 seconds or longer - time for the probe to reach temperature and for volatile organic compounds to diffuse through the membrane and into the trunkline. The trip time was about 60 seconds for the trunkline.

Electrical conductivity (EC) data was collected simultaneously at each MIP location. The EC was tested before and after each log for continuity and performance. All tests passed Geoprobe QC specs.

MIP-54 is the original field log data. MIP-54 ADJUSTED is that same log after attenuation corrections were made to the PIF/FID. Notice MIP-54 ADJUSTED log plot no longer contains the abrupt signal shift at 23' and that the PID and FID responses for MIP-54 ADJUSTED are 4 times higher from 0-23 feet as they should be.

11/05/12 - 11/08/12
131-MNDS-12(MIP) [see also 131-MNDS-12(UV)]
Golder Associates (Jim Peace) in Jefferson, IA @ Electrolux
MJ/GP/PT

---- All Files ----

Total Logs	26
Stat	Ft
Total Depth	770.10

MATRIX ENVIRONMENTAL LLC

11253 91st Ave. N.
Maple Grove, Minnesota 55369
(763) 424-4803
fax (763) 424-9452

Client: Golder Associates
Contact: Jim Peace
Services: MIP Logging

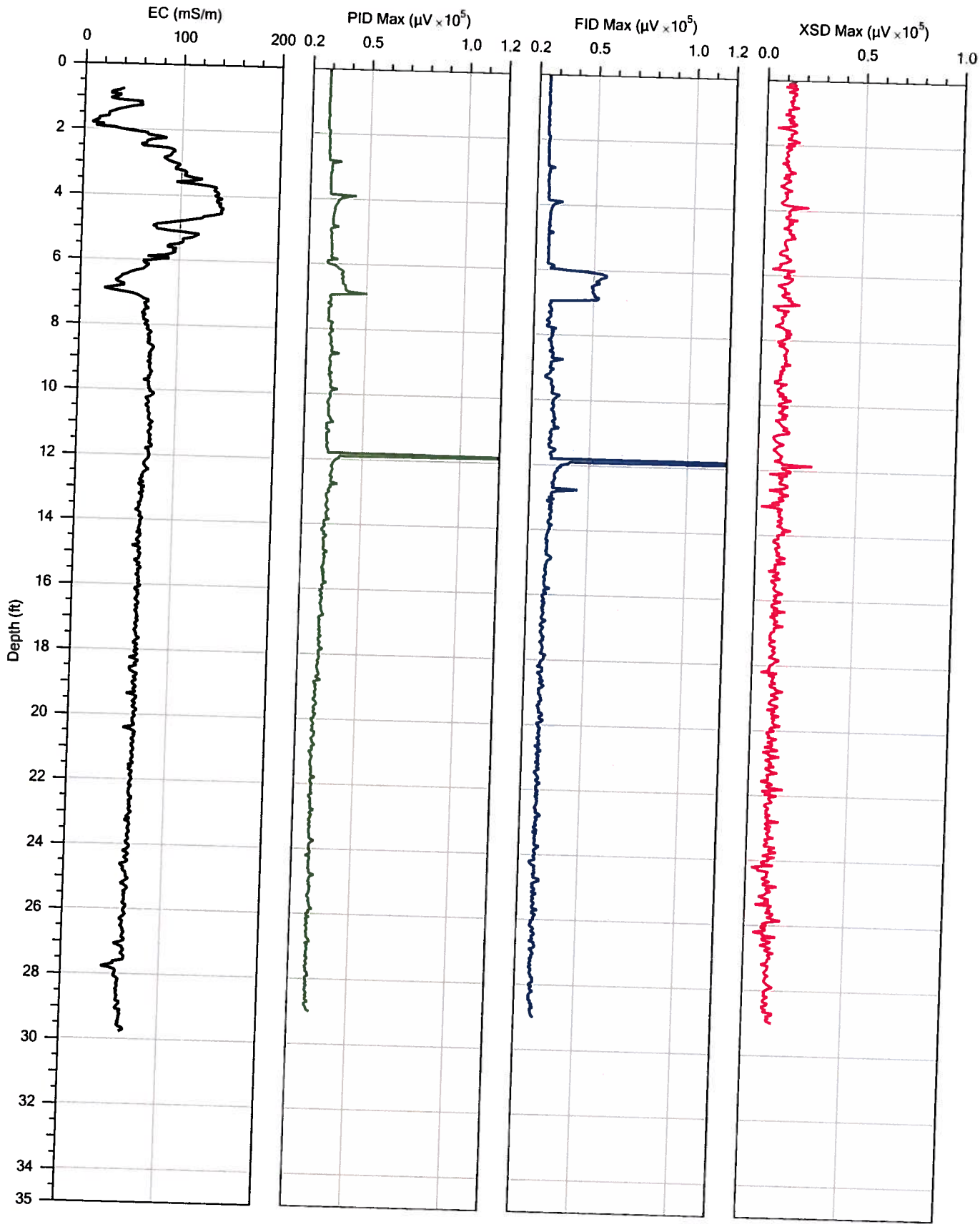
Date: 11/05/12 - 11/08/12
Project: Electrolux
Project #: 131-MNDS-12MIP
Address: Jefferson, IA

MIP Log Summary

File Log ID	Date	Latitude	Longitude	Final Depth (ft)	Comments
MIP-52	11/5/2012	NA	NA	29.00	Used probe P/N MP6520 S/N 4377 (new probe w/ new membrane) for entire project.
MIP-53	11/5/2012	NA	NA	29.60	
MIP-54	11/6/2012	NA	NA	29.35	Attenuation for PID and FID changed to 4 at 23.15 feet. (was set at 1 inadvertently), XSD settings OK.
MIP-55	11/6/2012	NA	NA	29.05	
MIP-56	11/6/2012	NA	NA	29.95	Heavy hydrocarbon contamination. Waited 45 minuted for PID/FID baselines to go down after MIP-56 completed.
MIP-57	11/6/2012	NA	NA	29.85	Heavy hydrocarbon contamination. Waited 2 hours for PID/FID baselines to go down after MIP-57 completed.
MIP-58	11/6/2012	NA	NA	29.55	
MIP-59	11/6/2012	NA	NA	29.95	
MIP-60	11/6/2012	NA	NA	29.90	Heavy hydrocarbon contamination. Waited 20 minutes for PID/FID baselines to go down after MIP-60 completed.
MIP-61	11/6/2012	NA	NA	29.90	
MIP-62	11/7/2012	NA	NA	29.90	
MIP-63	11/7/2012	NA	NA	29.85	
MIP-64	11/7/2012	NA	NA	29.85	
MIP-65	11/7/2012	NA	NA	29.85	
MIP-66	11/7/2012	NA	NA	30.00	
MIP-67	11/7/2012	NA	NA	29.90	
MIP-68	11/7/2012	NA	NA	31.00	Refusal at 31.00 feet.
MIP-69	11/7/2012	NA	NA	29.65	
MIP-70	11/7/2012	NA	NA	29.90	
MIP-71	11/8/2012	NA	NA	29.80	
MIP-72	11/8/2012	NA	NA	29.00	Refusal at 29.00 feet.
MIP-73	11/8/2012	NA	NA	28.65	
MIP-74	11/8/2012	NA	NA	29.65	
MIP-75	11/8/2012	NA	NA	28.50	
MIP-76	11/8/2012	NA	NA	29.10	
MIP-77	11/8/2012	NA	NA	29.40	Refusal at 29.4 feet.
			Total	**770.10**	

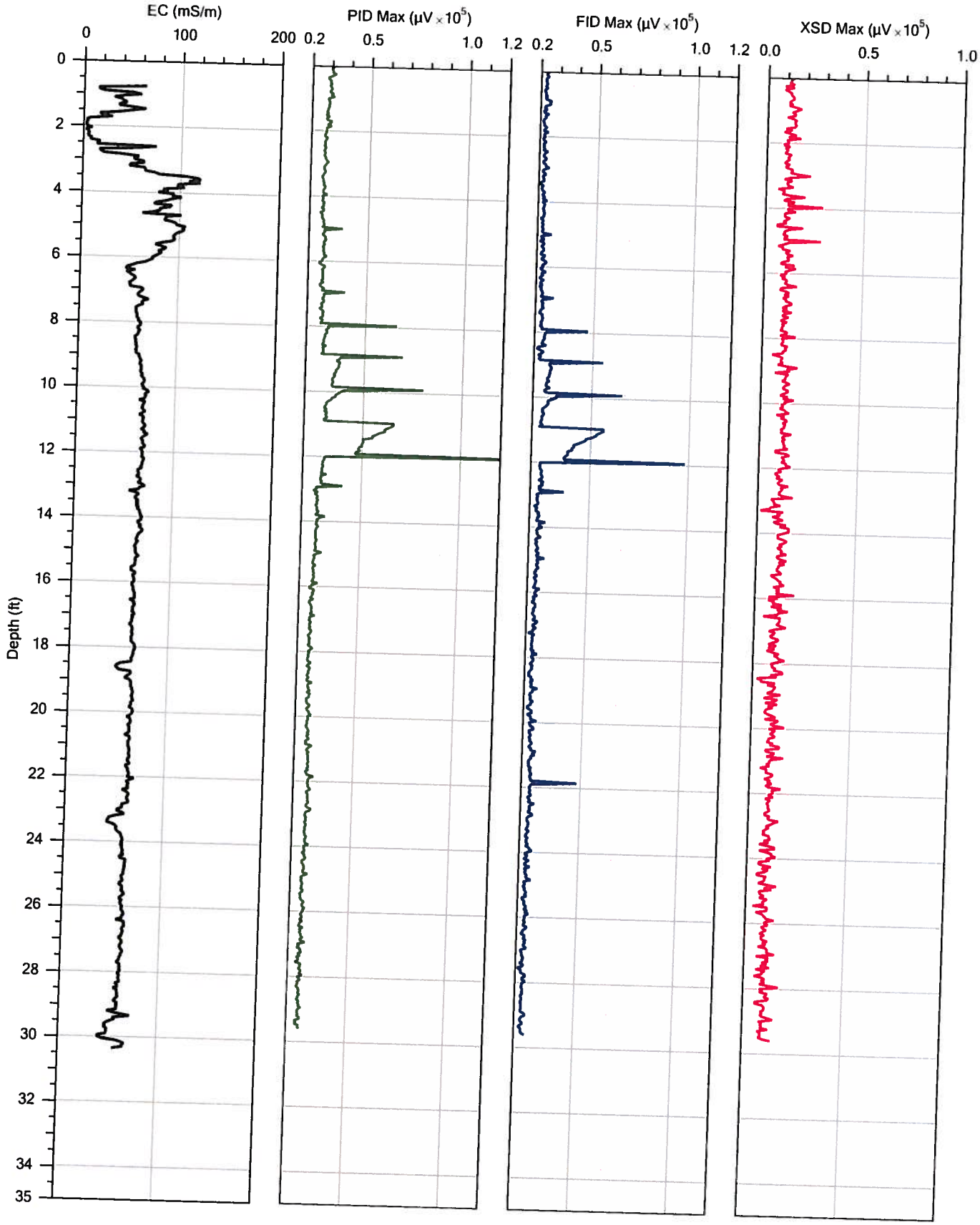
MIP LOGS

With detectors @ 100,000 µV



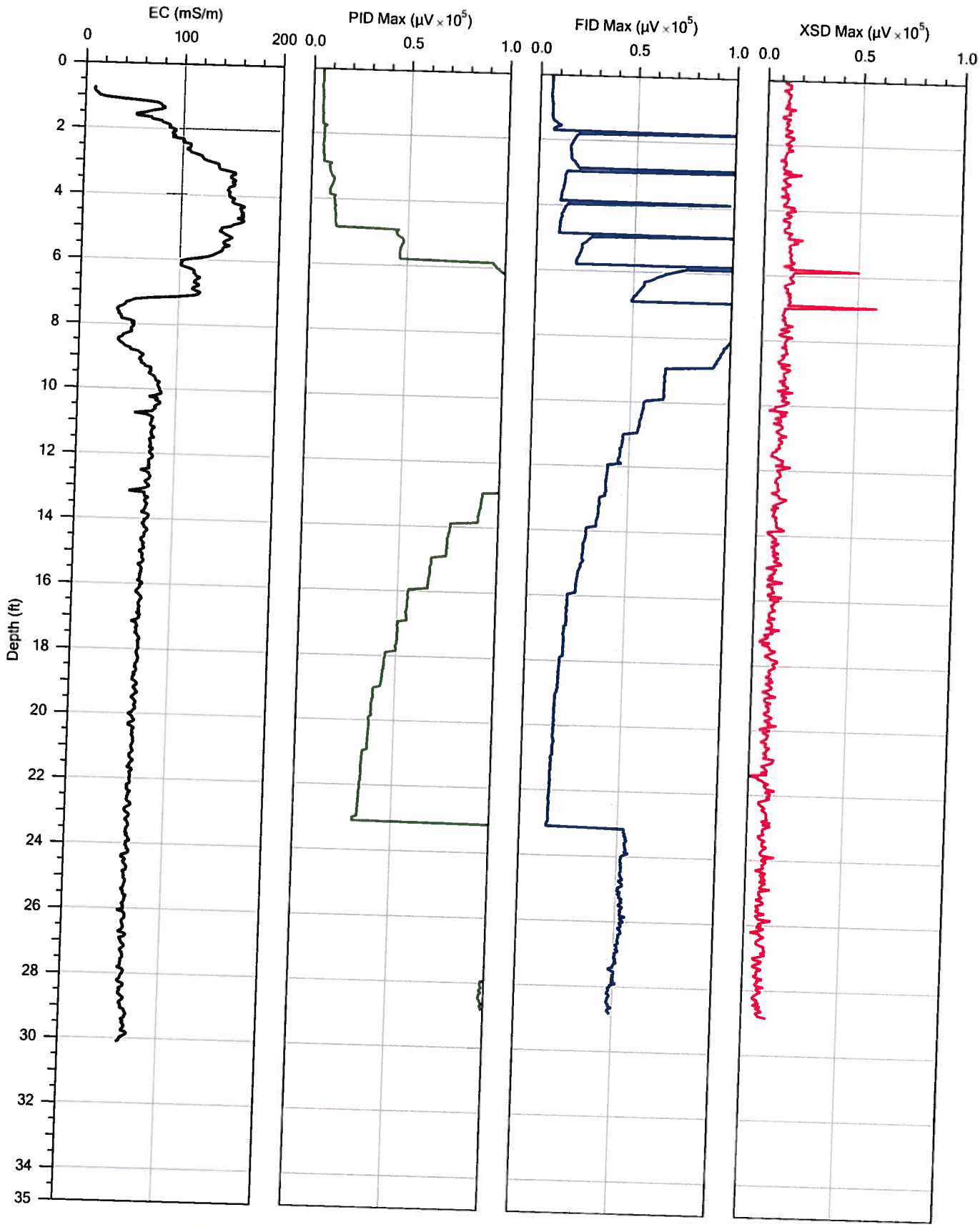
MATRIX ENVIRONMENTAL LLC

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-52.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/5/2012	
		Location:	

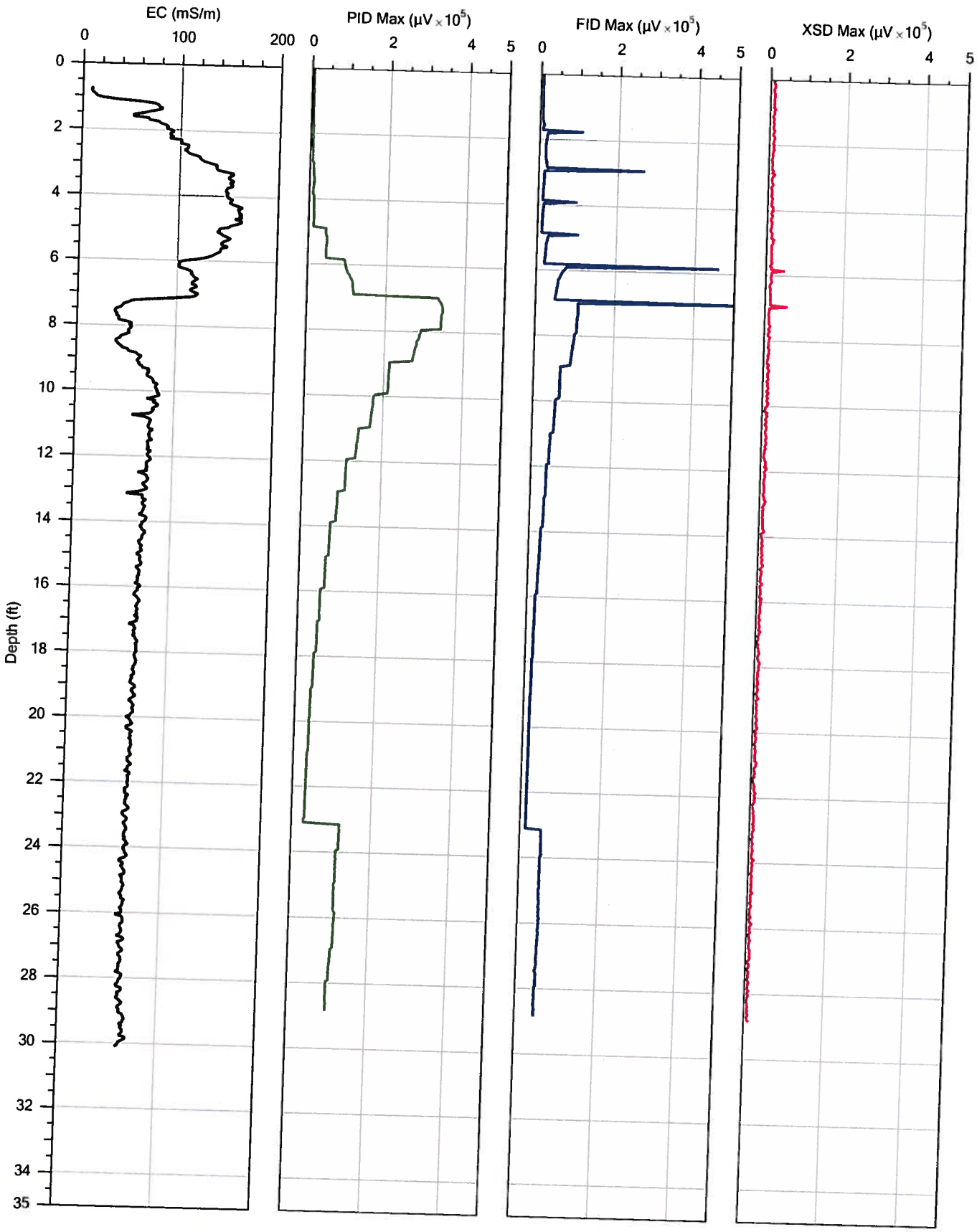


MATRIX ENVIRONMENTAL LLC

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-53.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/5/2012	
		Location:	

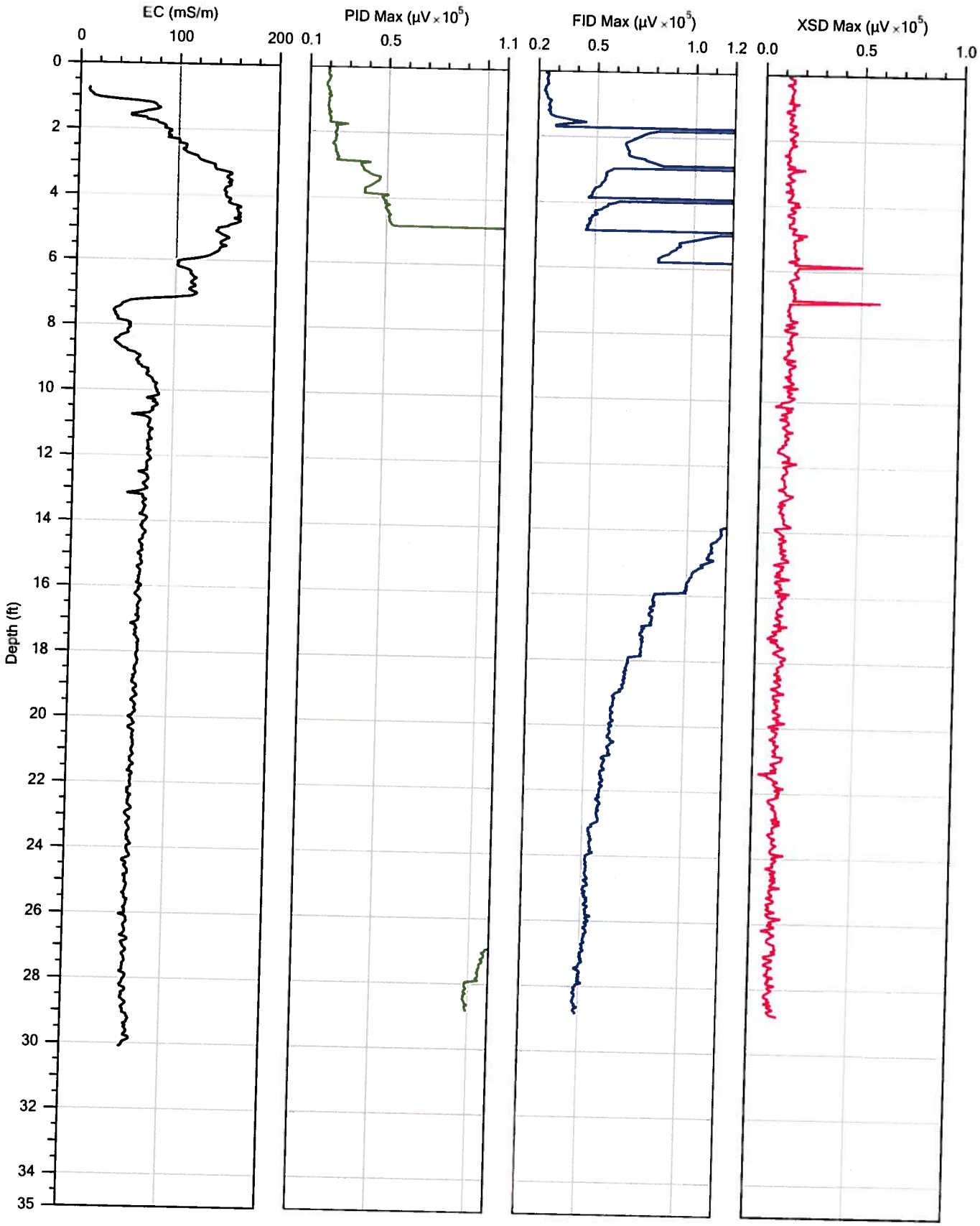


Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-54.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	



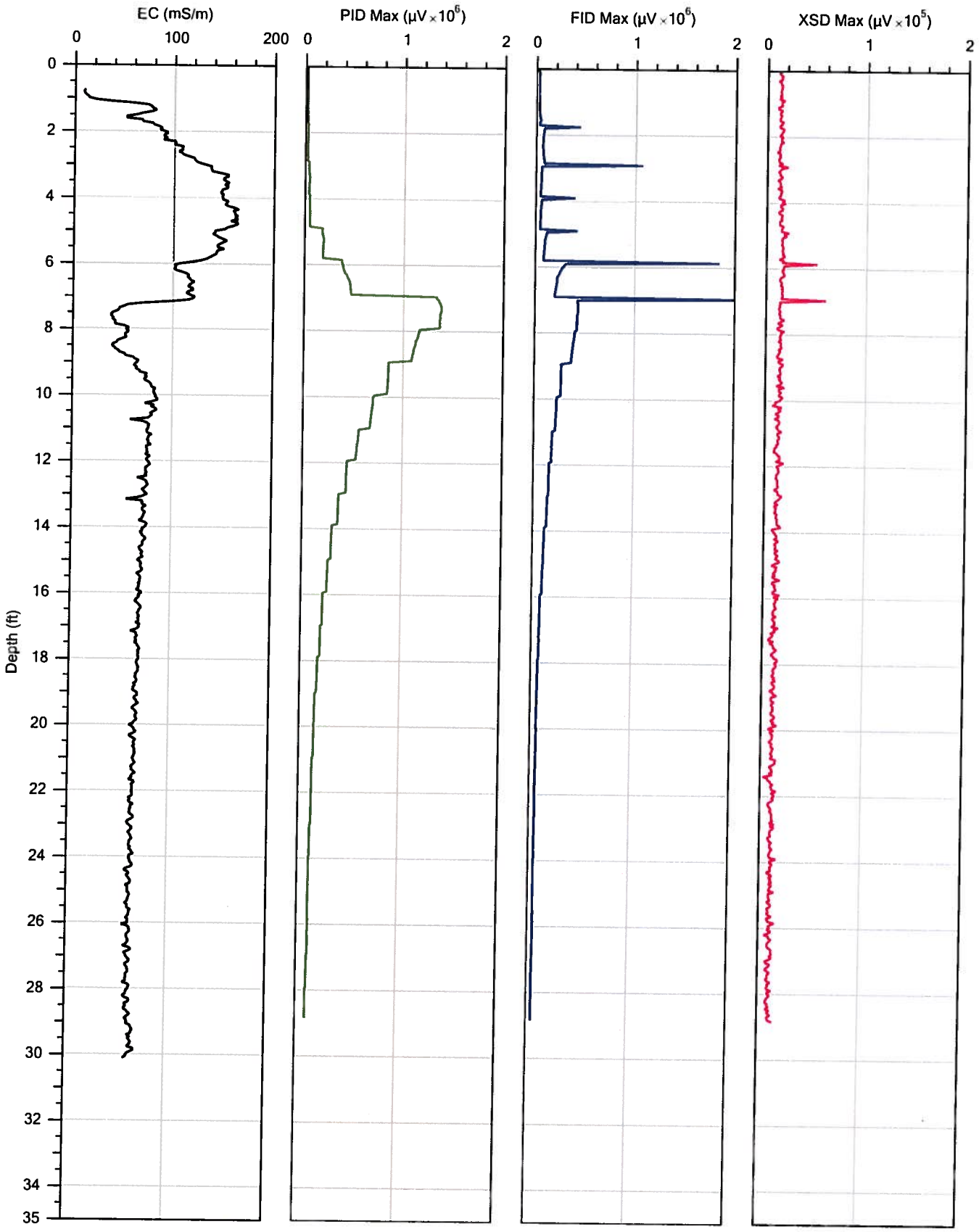
MATRIX ENVIRONMENTAL LLC

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-54.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	

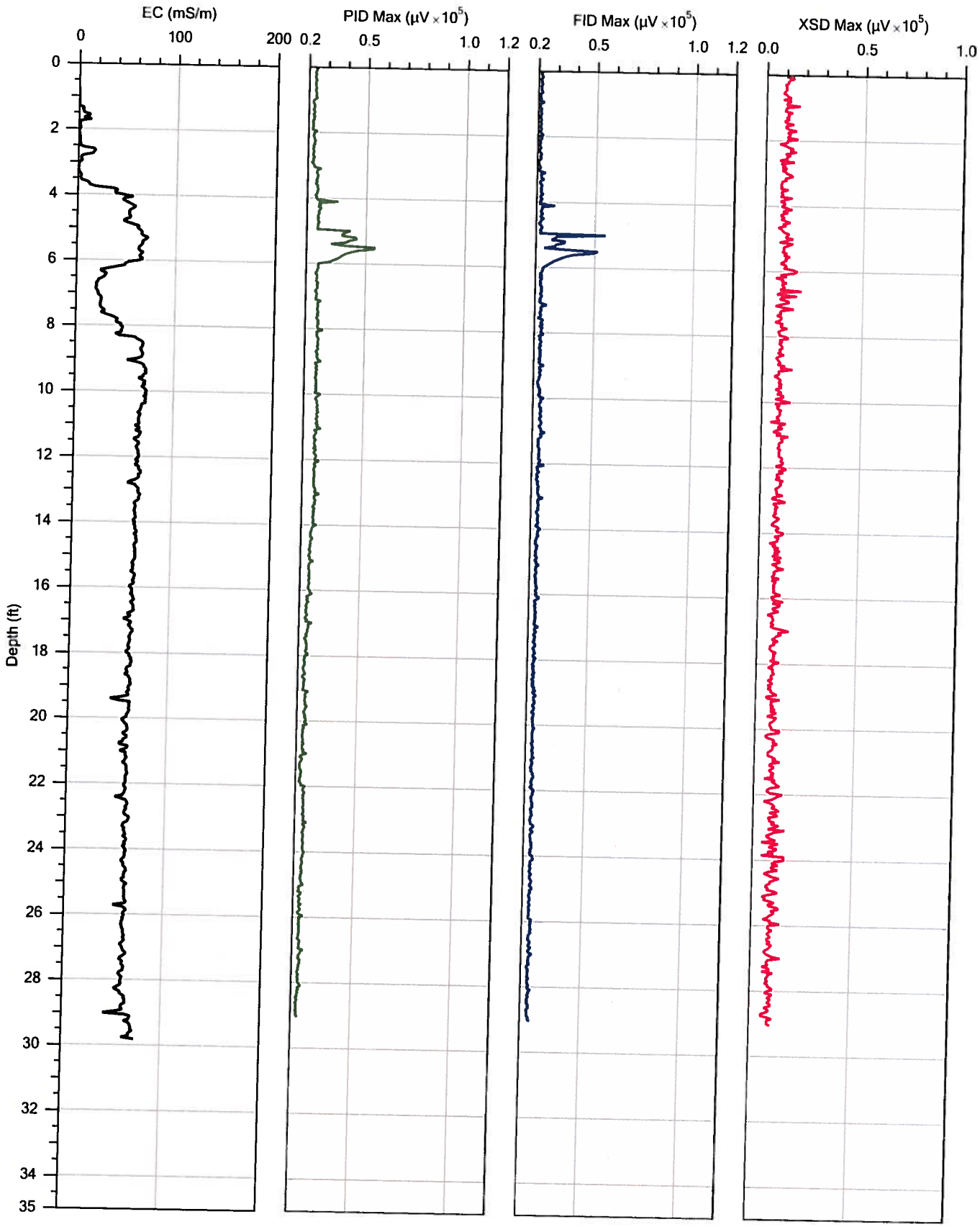


MATRIX

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-54 ADJUSTED.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	



Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-54 ADJUSTED.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	



Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-55.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
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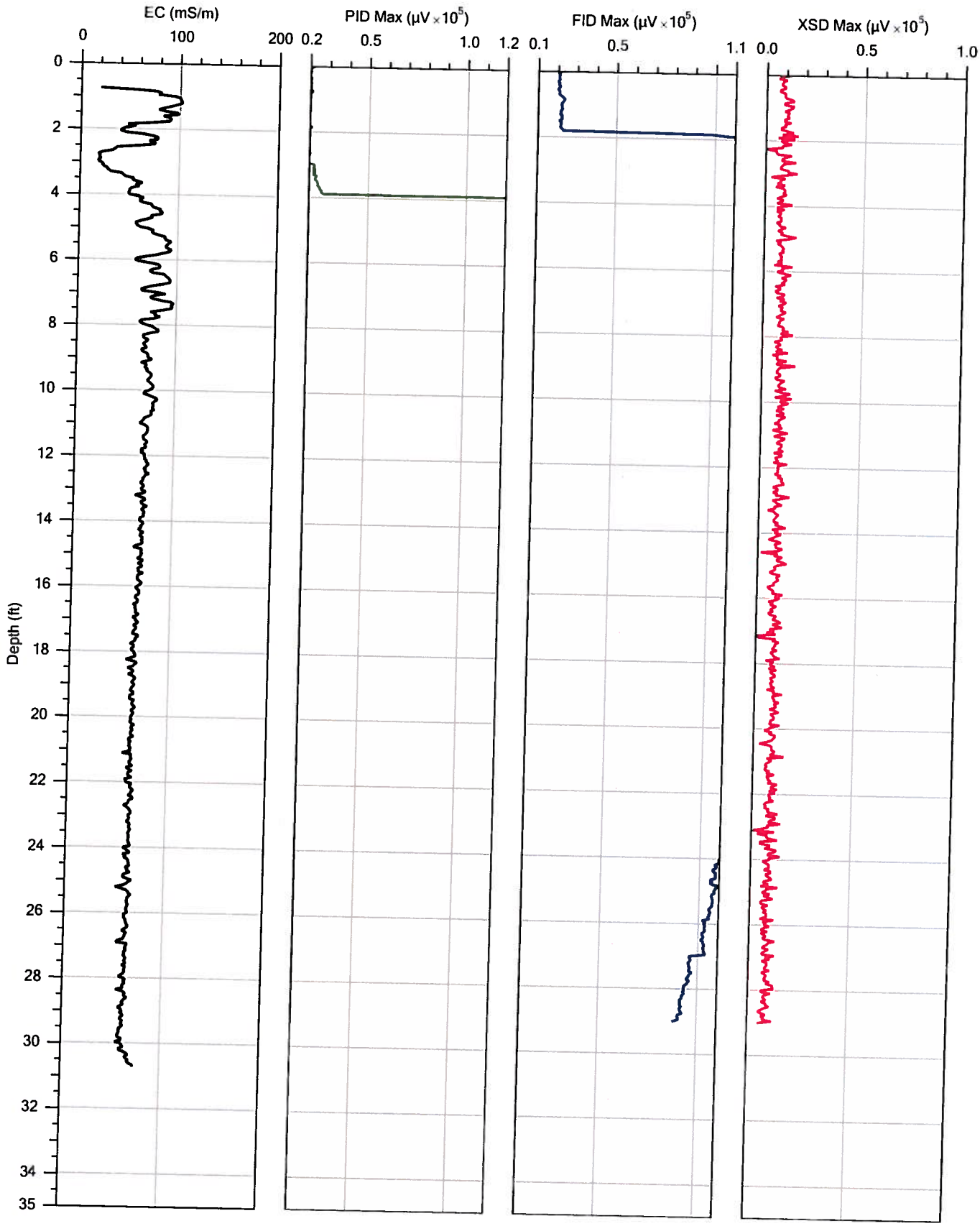
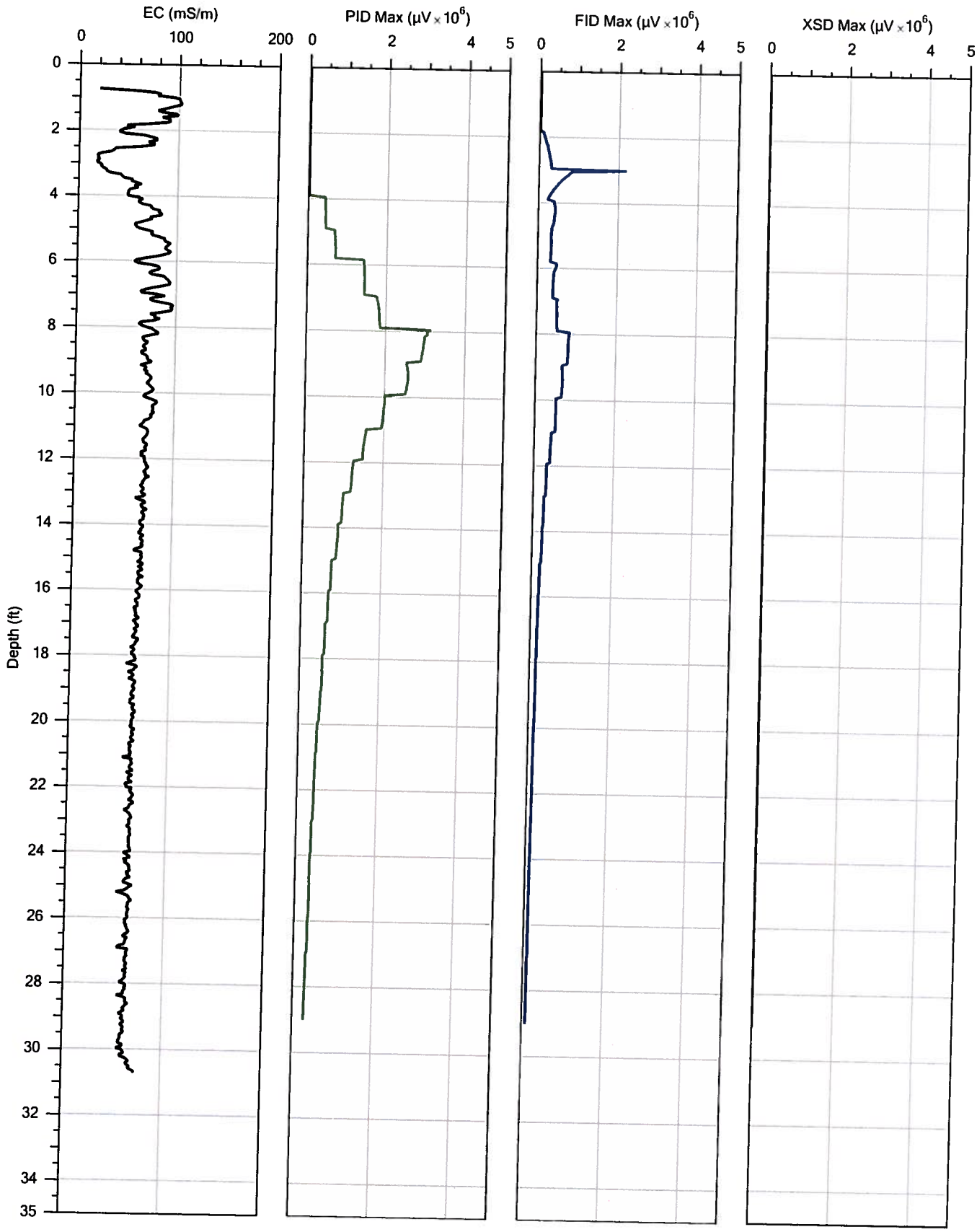
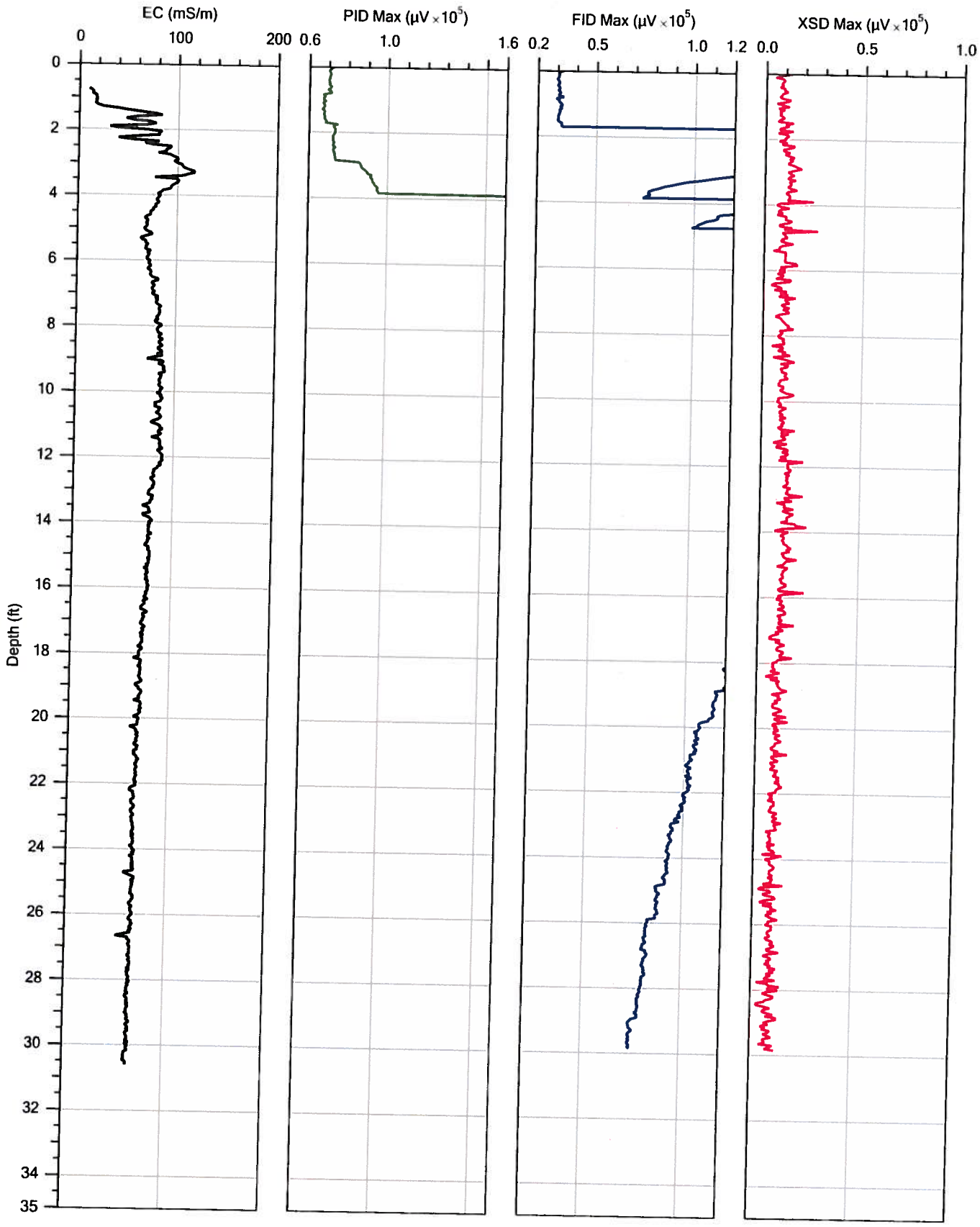


MATRIX ENVIRONMENTAL LLC

Company:	Matrix Environmental	Operator:	Mike Jenson	File:	MIP-56.MIP
Project ID:	131-MNDS-12MIP	Client:	Golder	Date:	11/6/2012
				Location:	

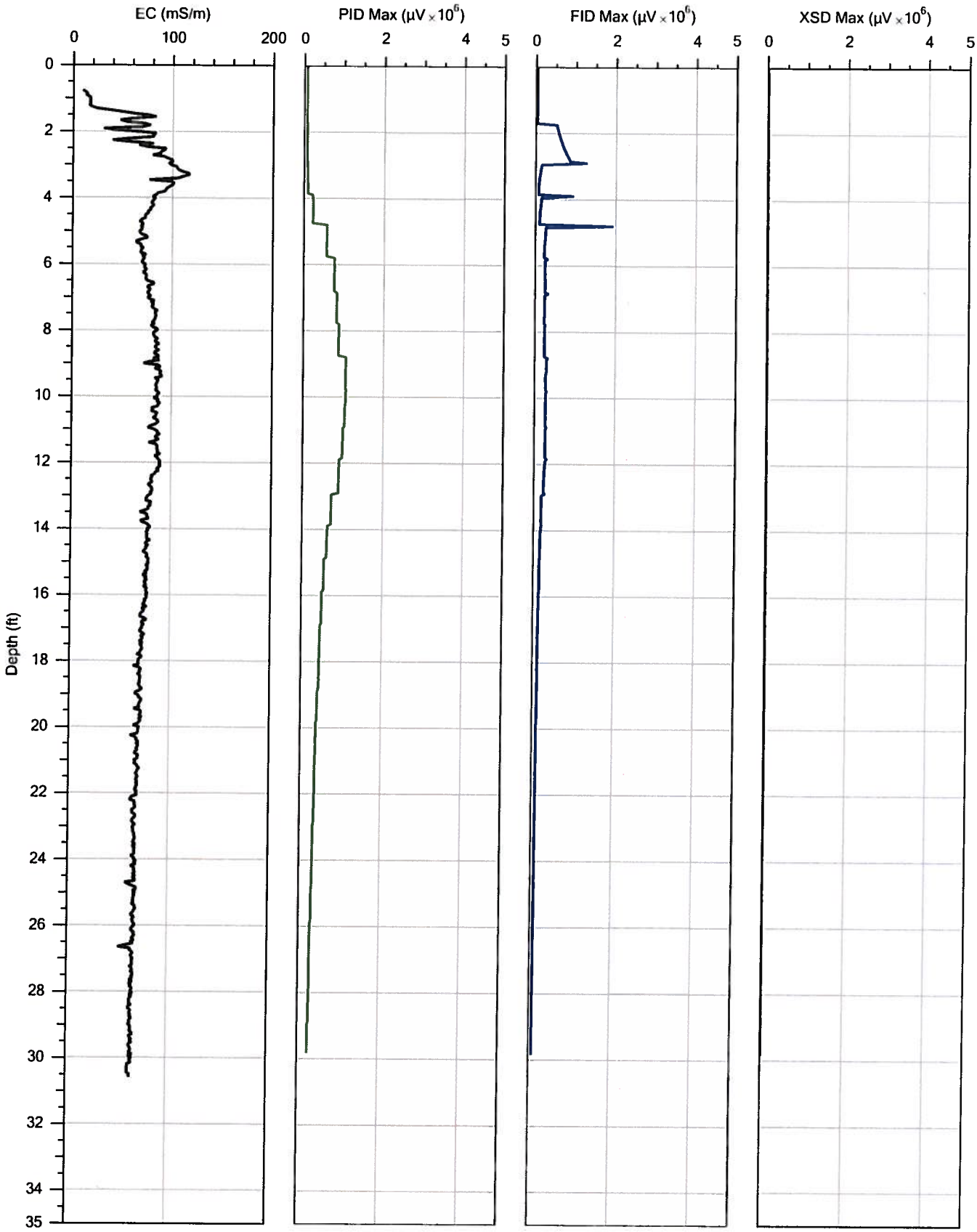


Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-56.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	

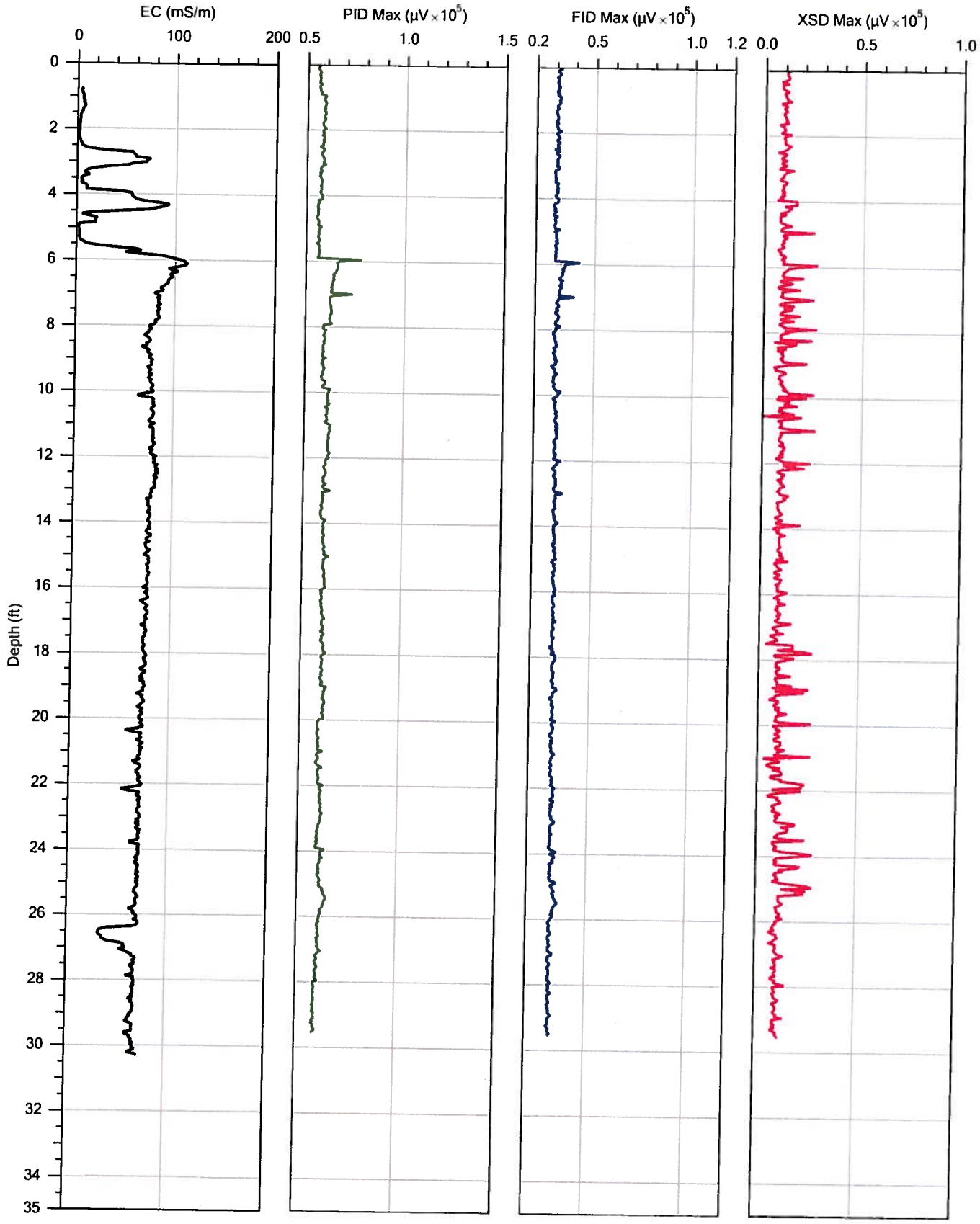


MATRIX ENVIRONMENTAL LLC

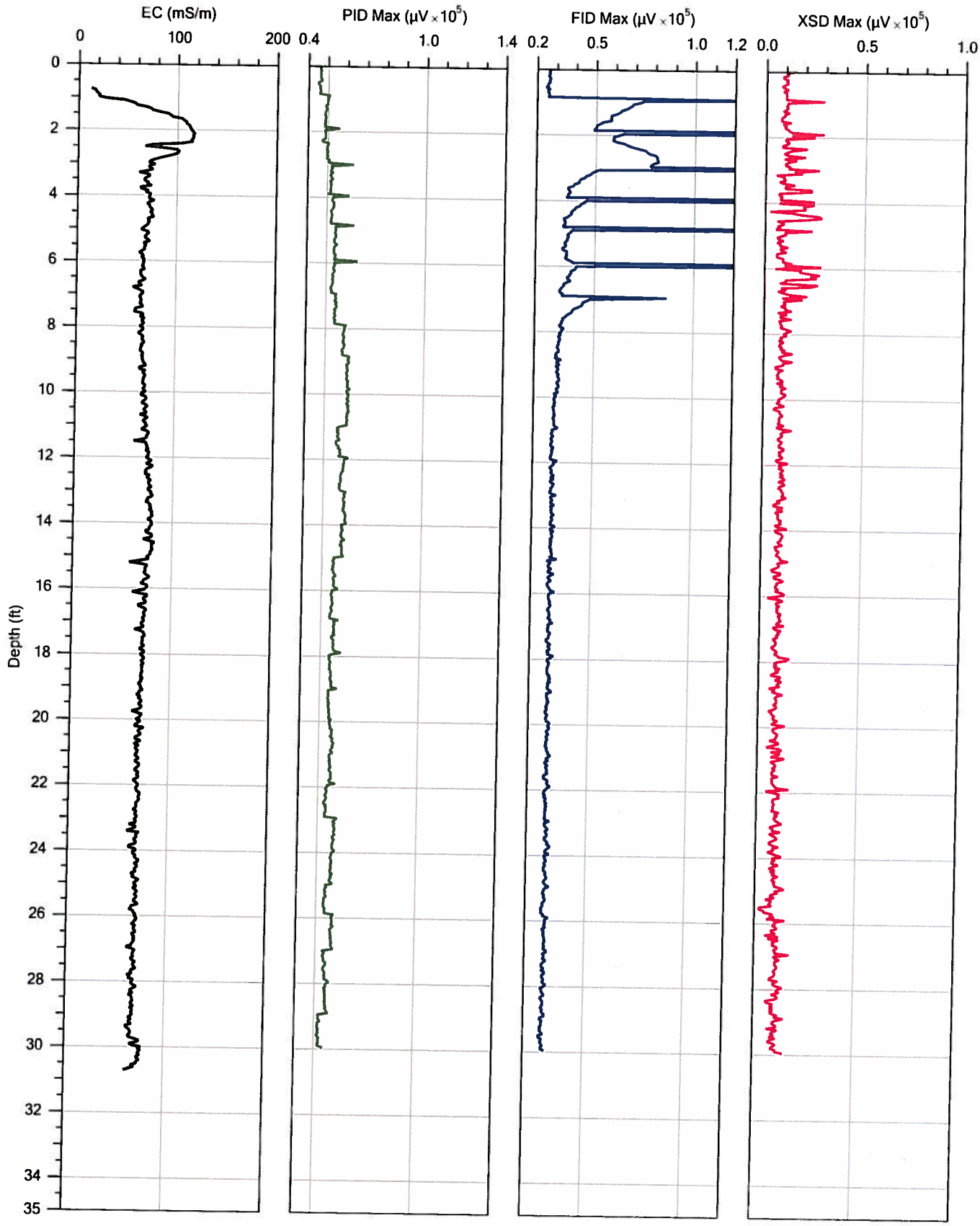
Company:	Matrix Environmental	Operator:	Mike Jenson	File:	MIP-57.MIP
Project ID:	131-MNDS-12MIP	Client:	Golder	Date:	11/6/2012
				Location:	



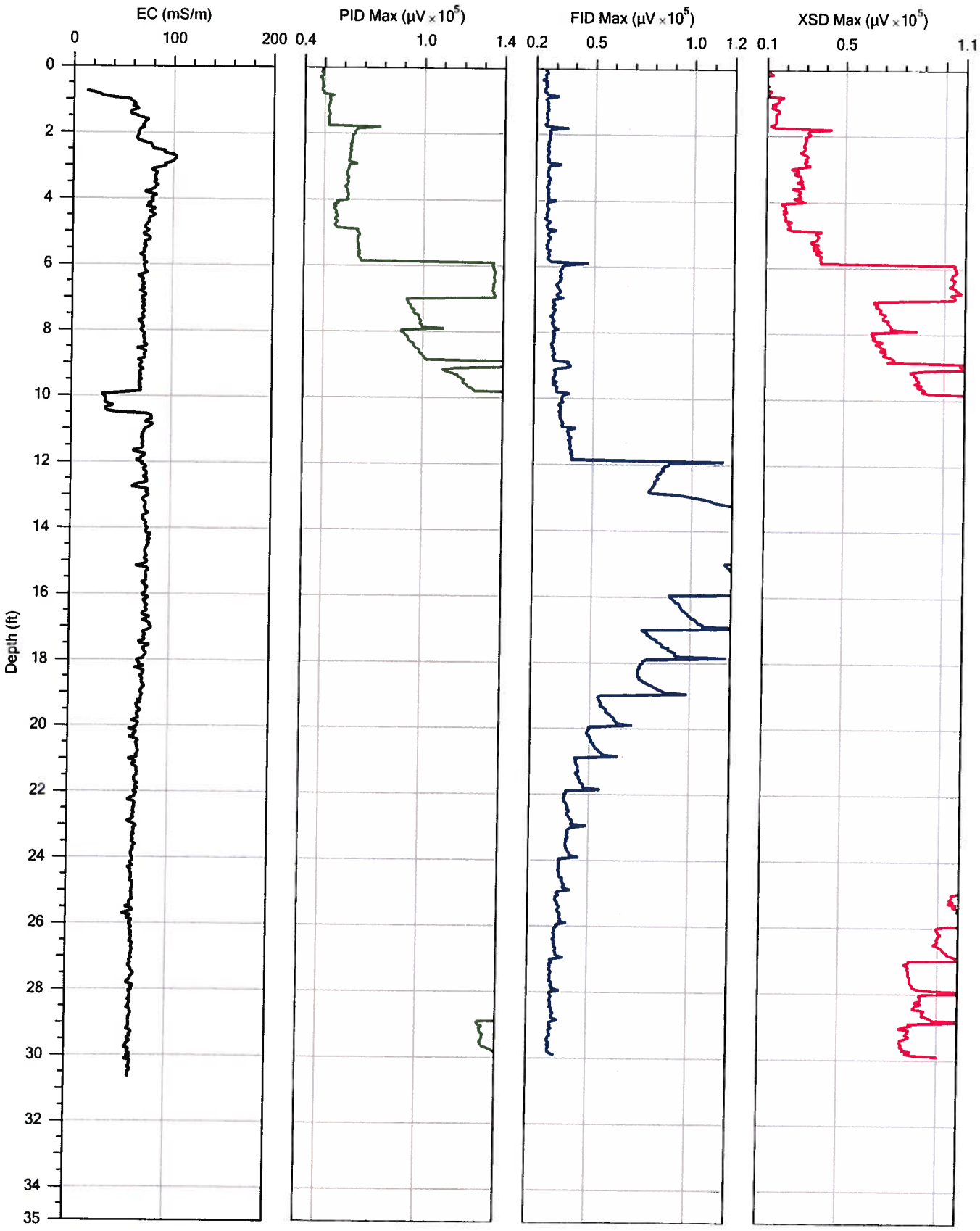
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-57.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	



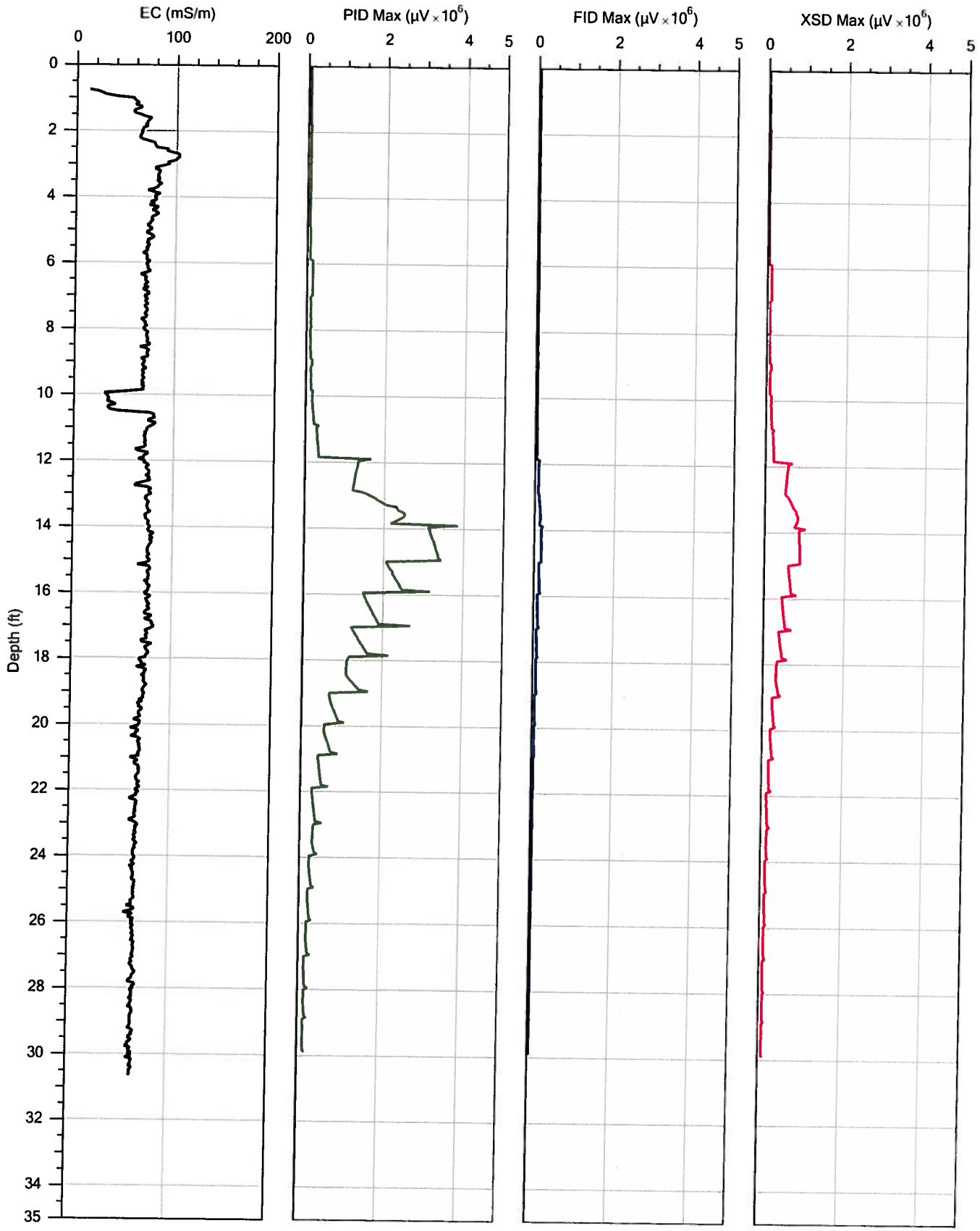
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-58.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	



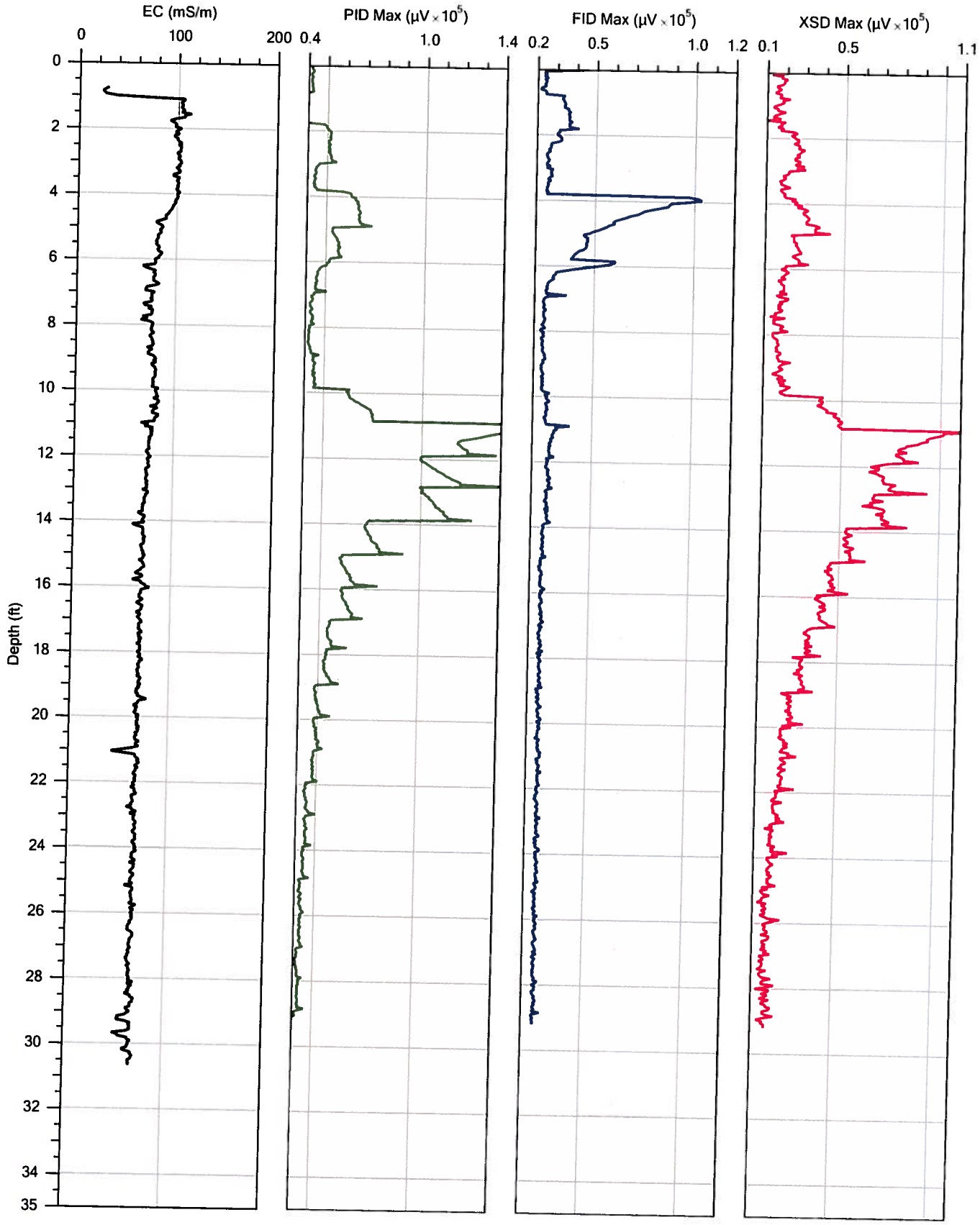
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-59.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	



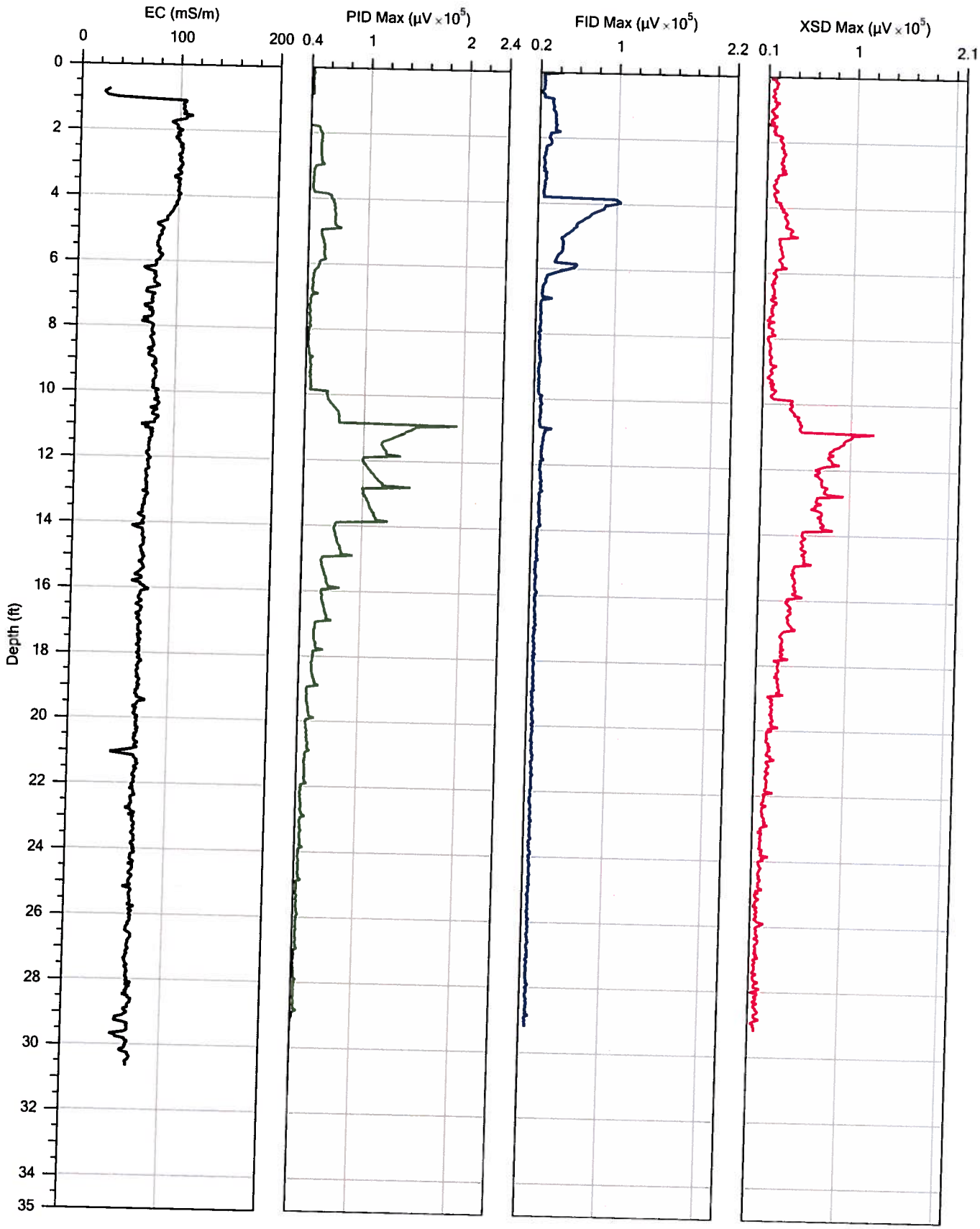
MATRIX ENVIRONMENTAL LLC	Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-60.MIP
	Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012
			Location:



Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-60.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	

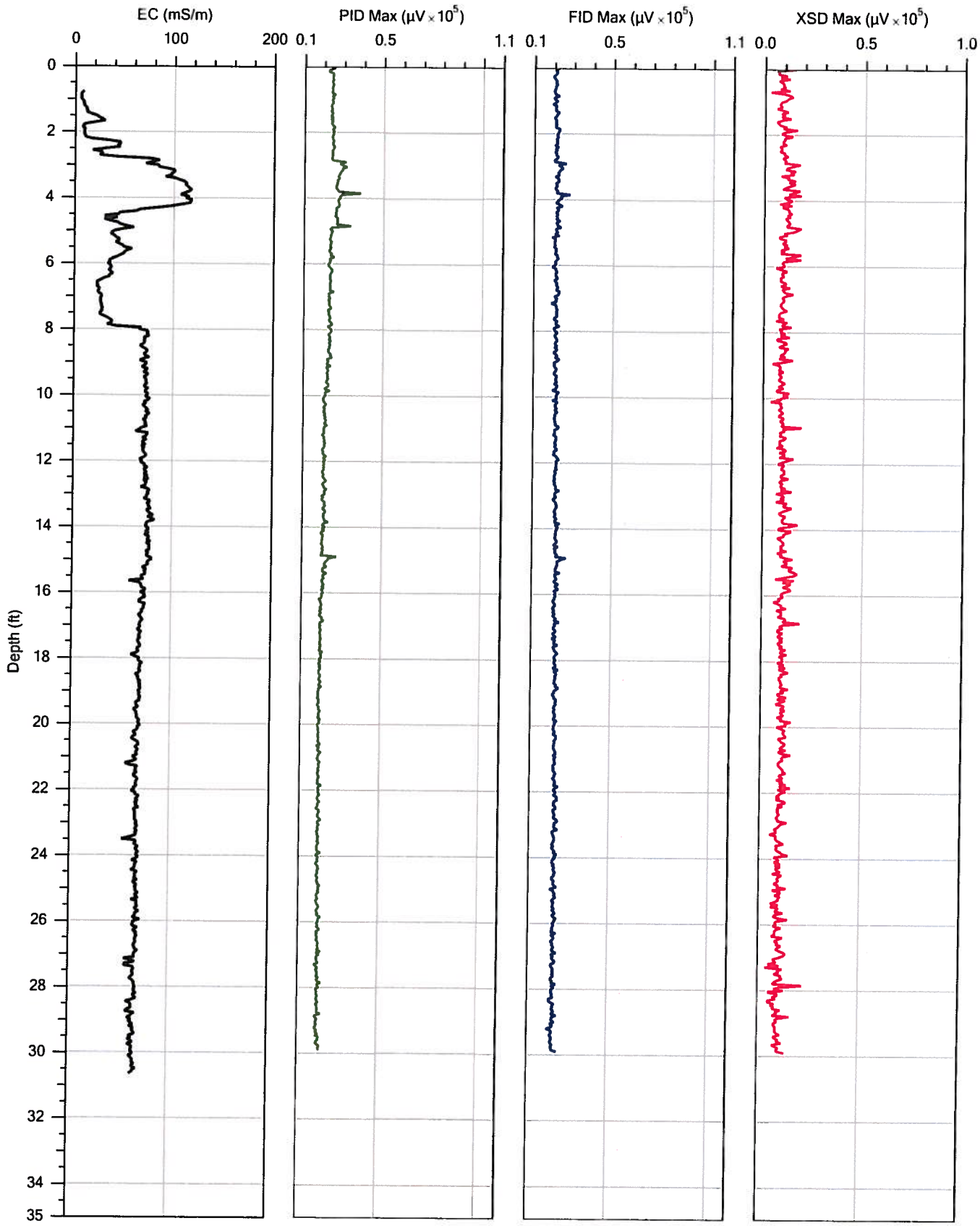


Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-61.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	

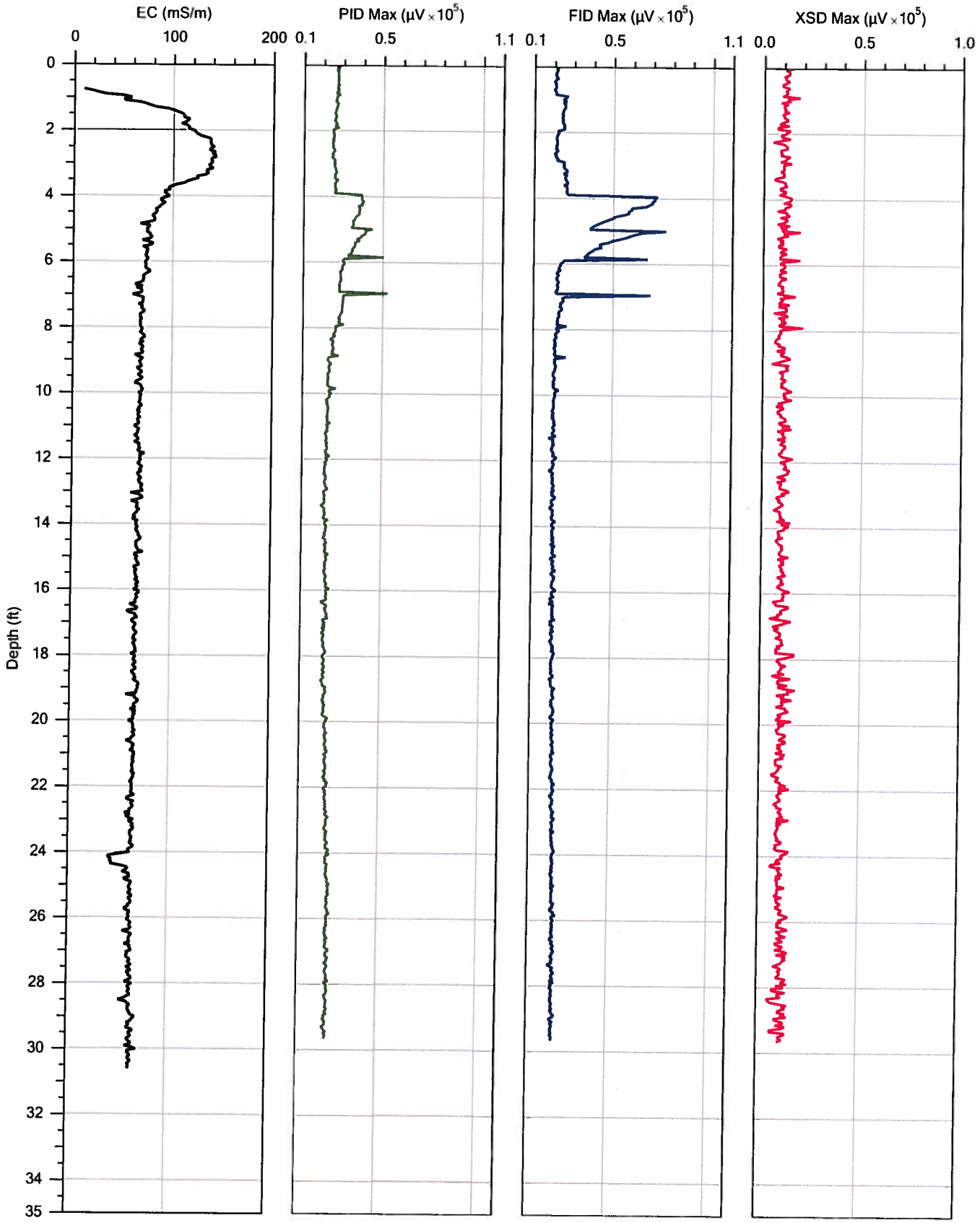


MATRIX ENVIRONMENTAL LLC

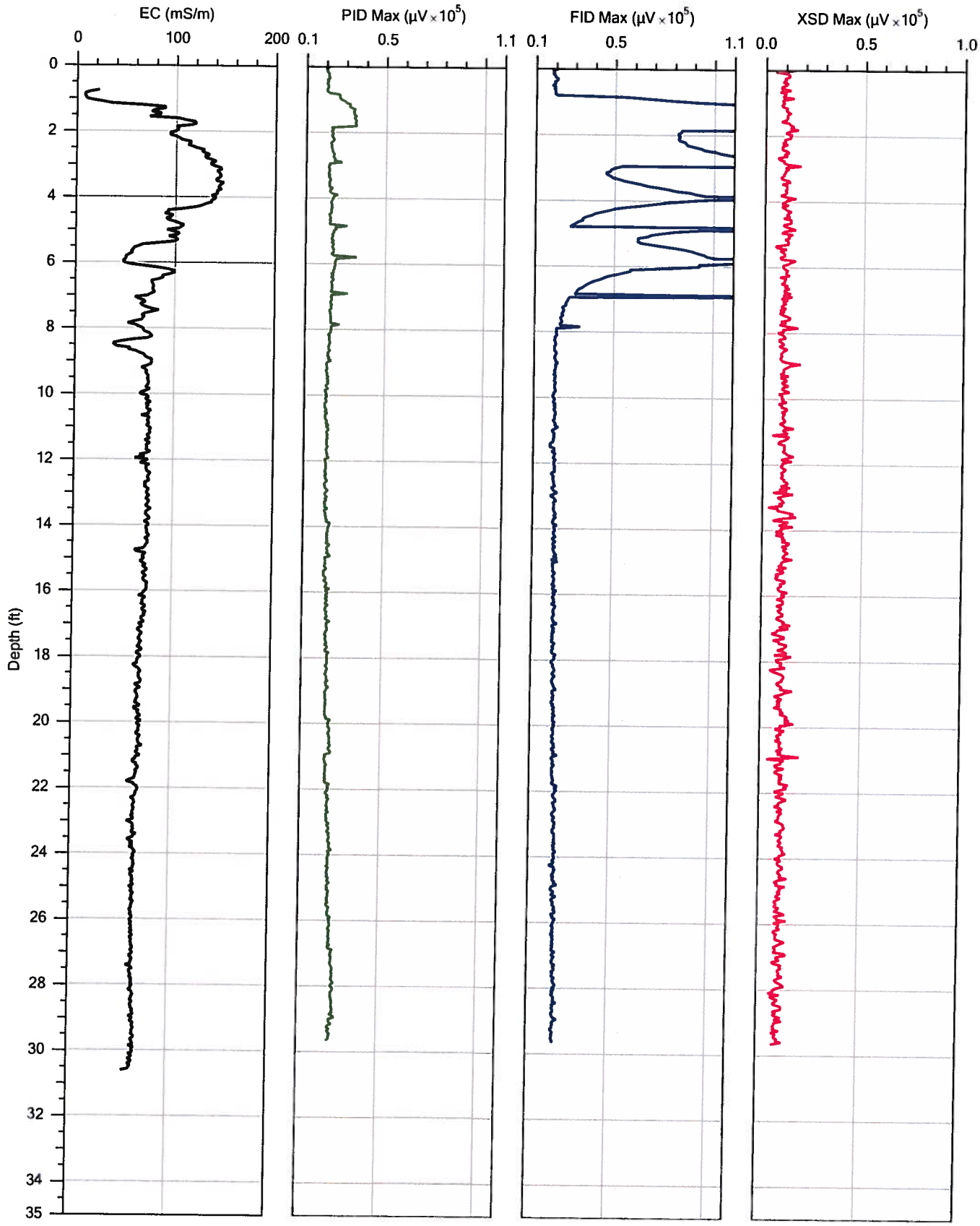
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-61.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/6/2012	
		Location:	



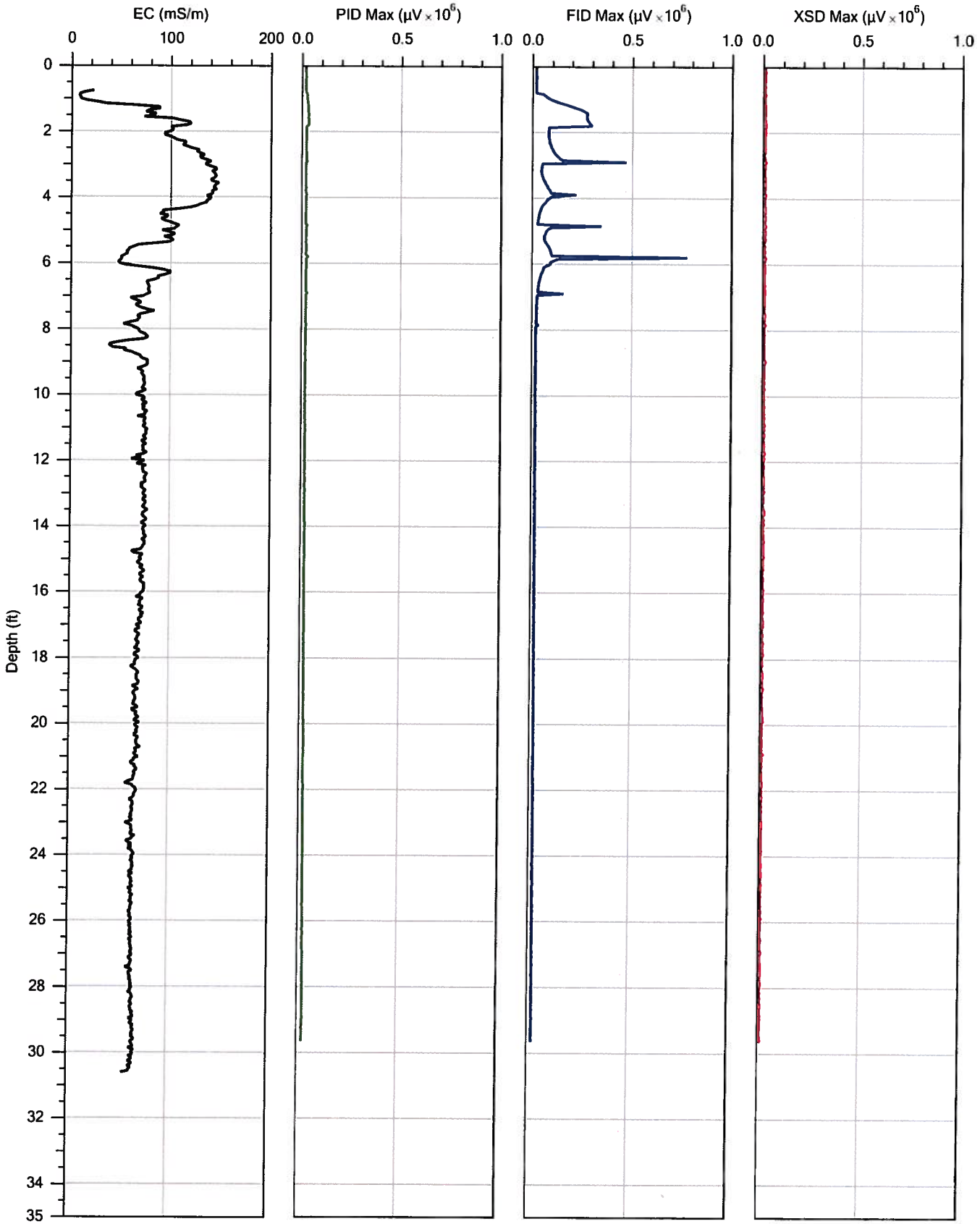
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-62.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/7/2012	
		Location:	



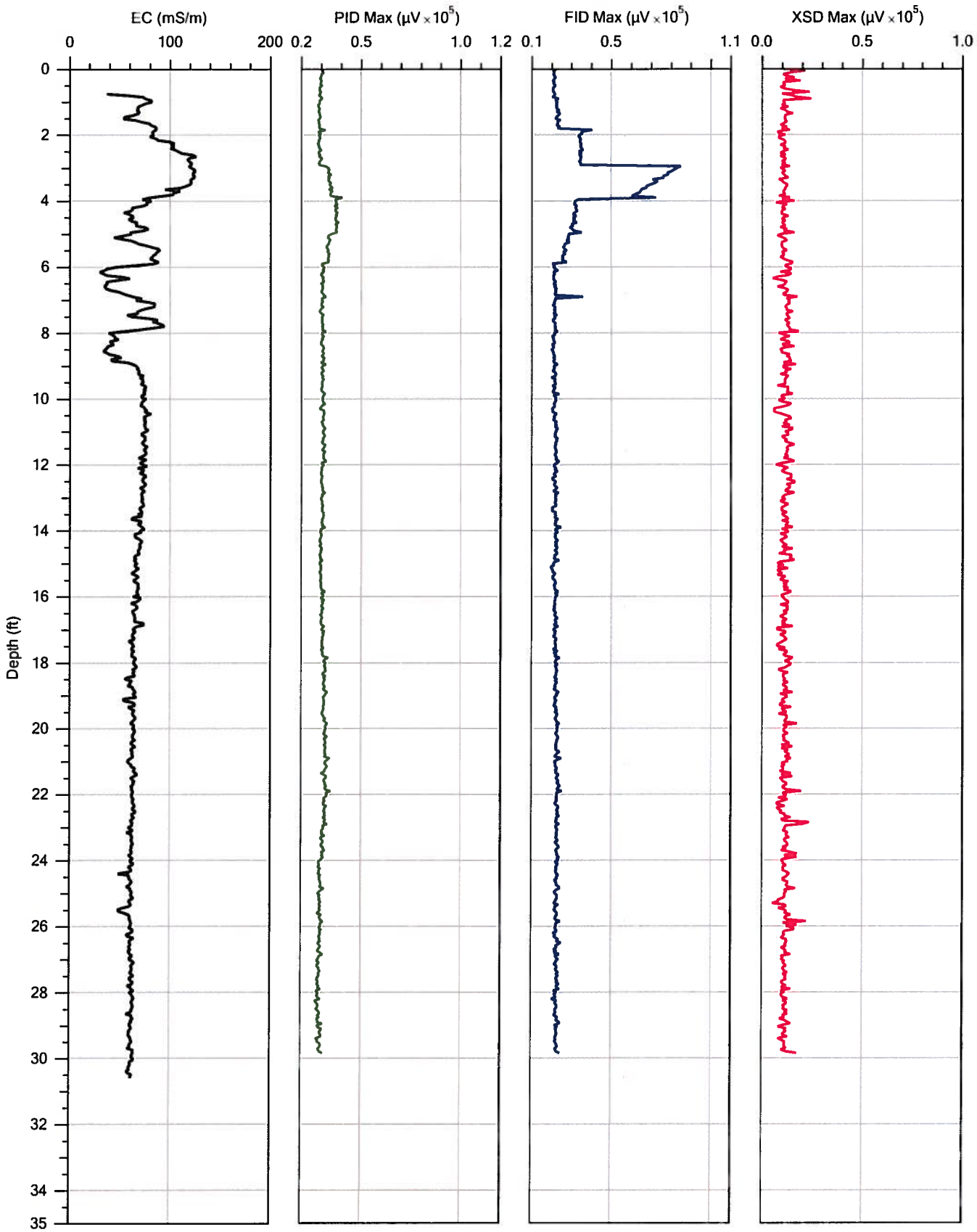
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-63.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/7/2012	
		Location:	



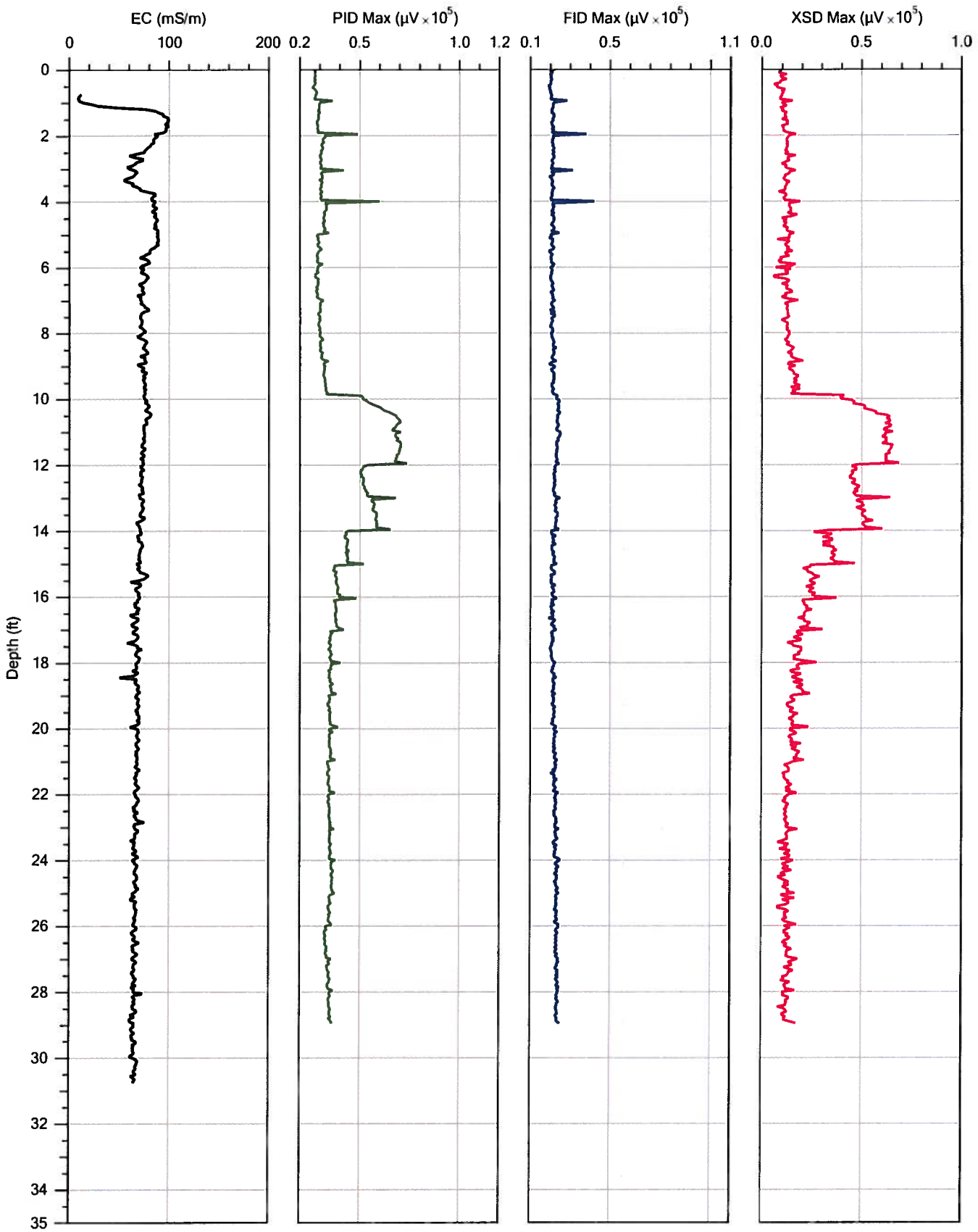
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-64.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/7/2012	
		Location:	



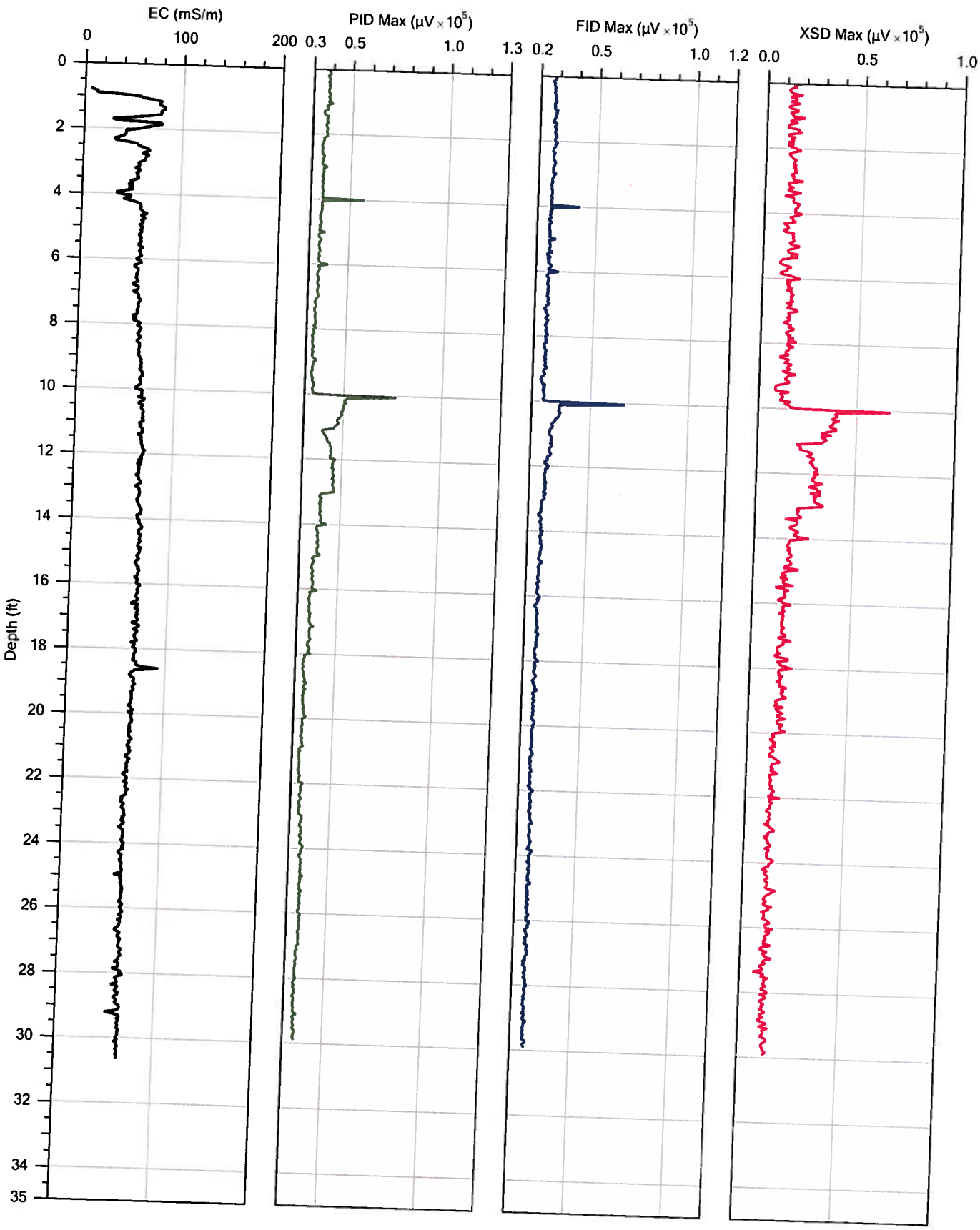
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-64.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/7/2012	
		Location:	



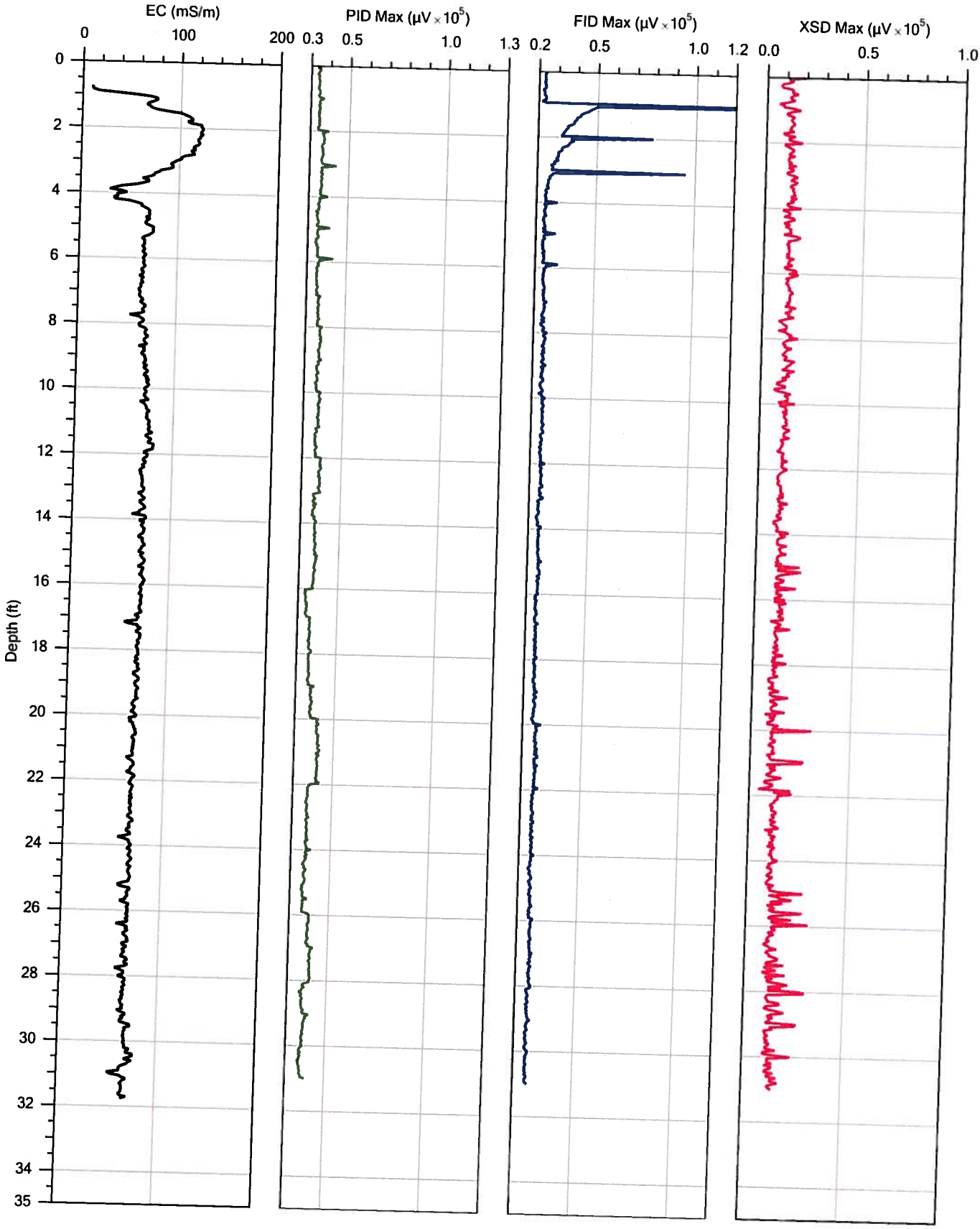
MATRIX ENVIRONMENTAL LLC			File: MIP-65.MIP
Company: Matrix Environmental	Operator: Mike Jenson		Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder		Location:



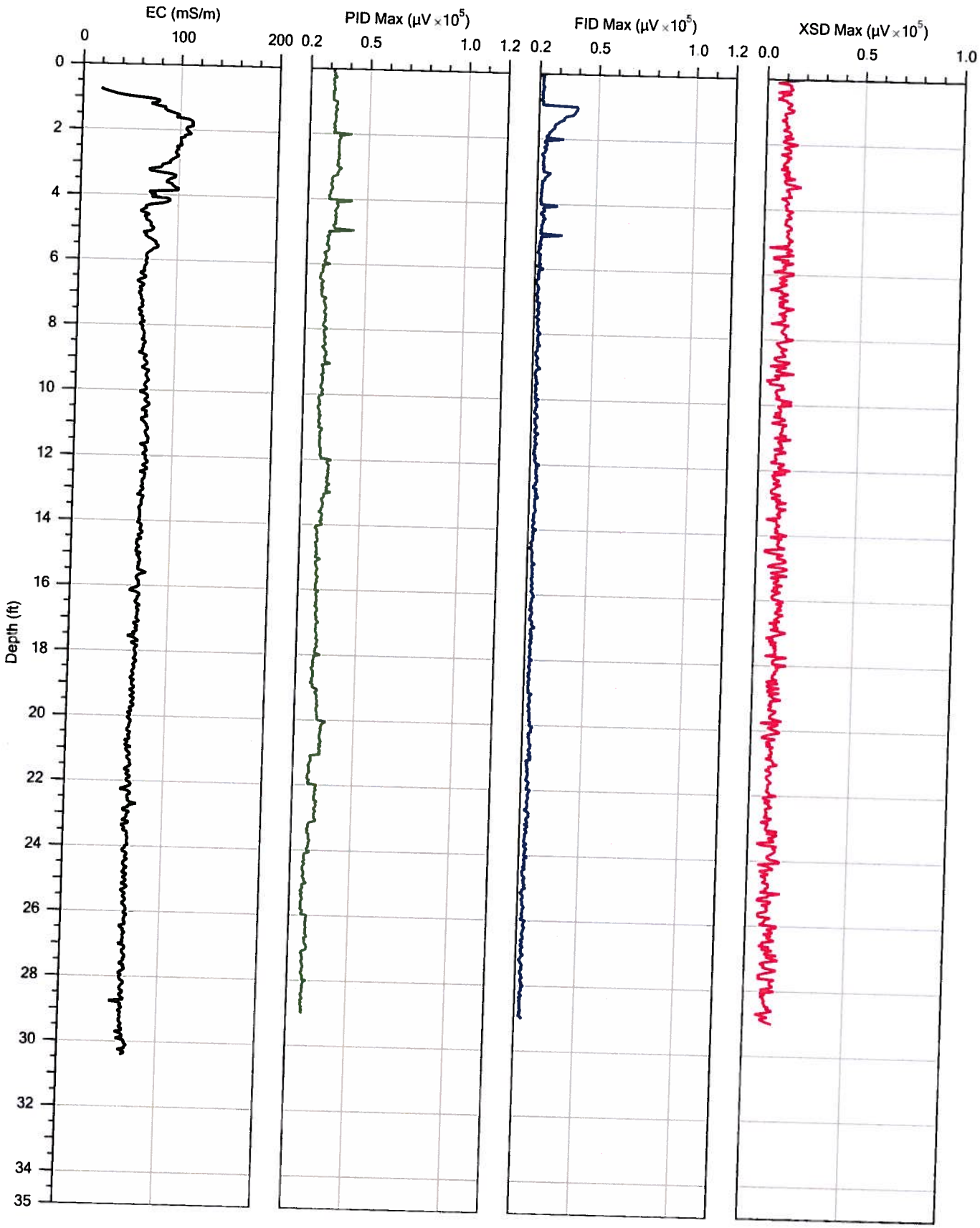
MATRIX ENVIRONMENTAL LLC			File: MIP-66.MIP
Company: Matrix Environmental	Operator: Mike Jenson		Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder		Location:



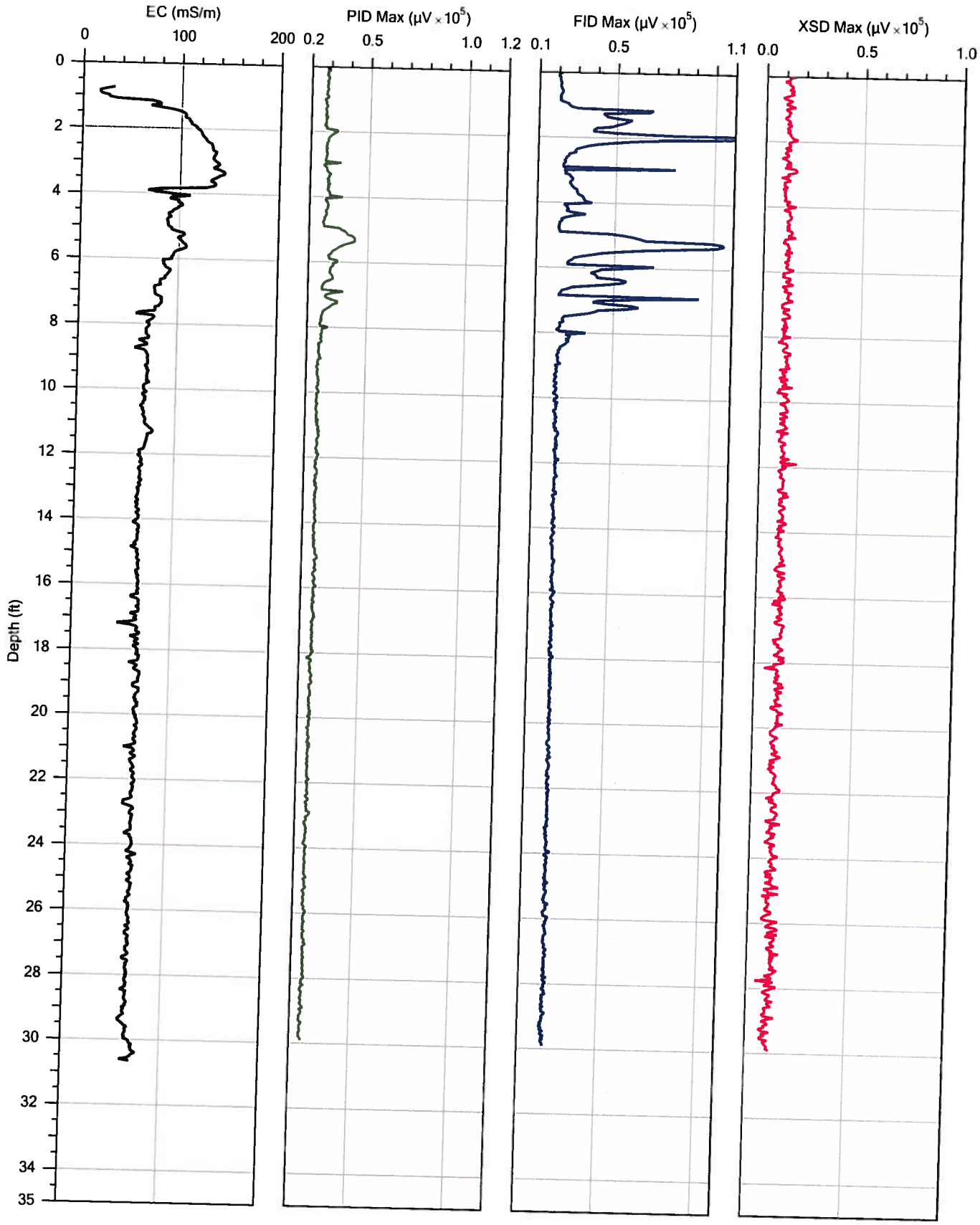
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-67.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/7/2012	
		Location:	



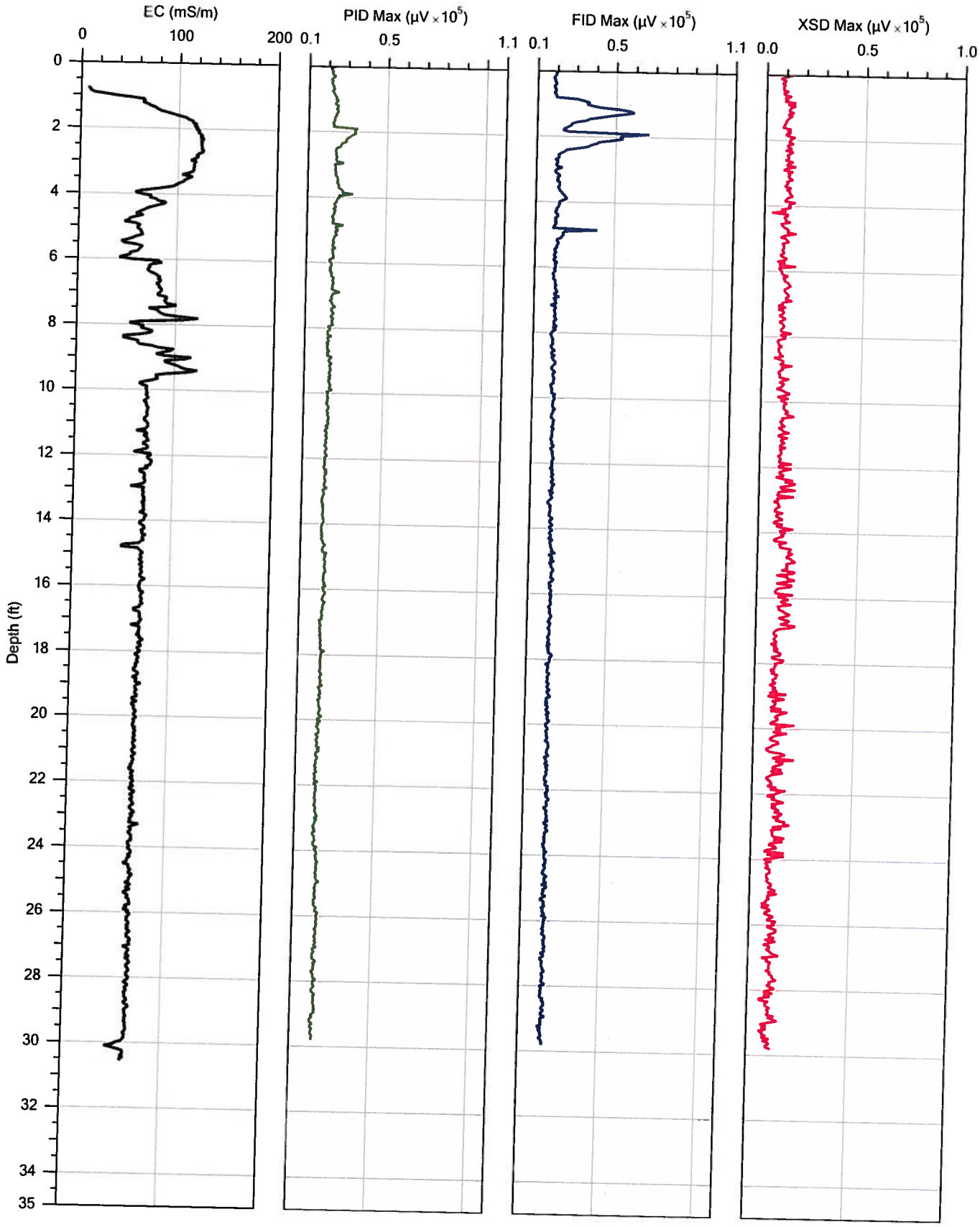
MATRIX ENVIRONMENTAL LLC	Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-68.MIP
	Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/7/2012
			Location:



Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-69.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/7/2012	
		Location:	

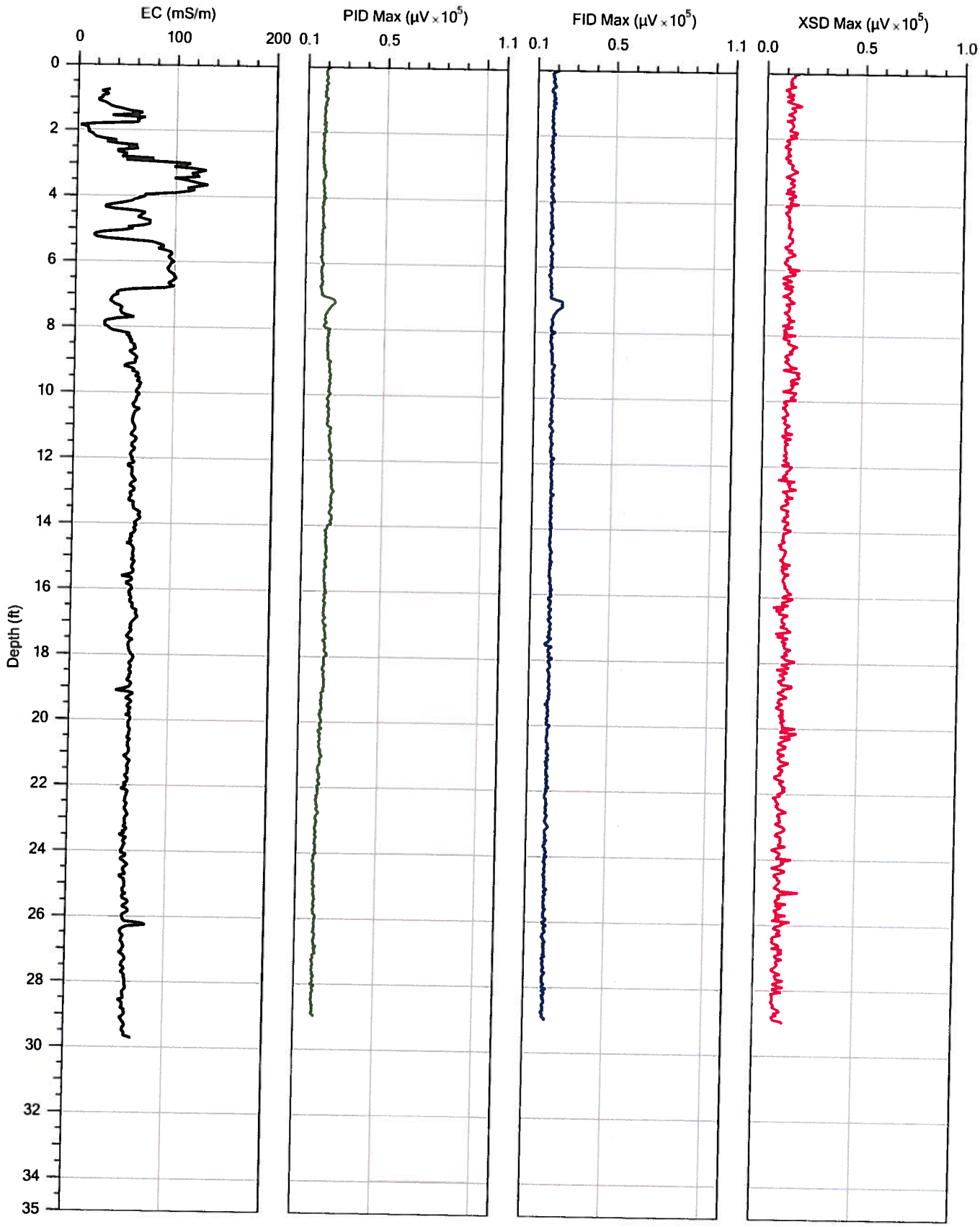


Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-70.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/7/2012	
		Location:	

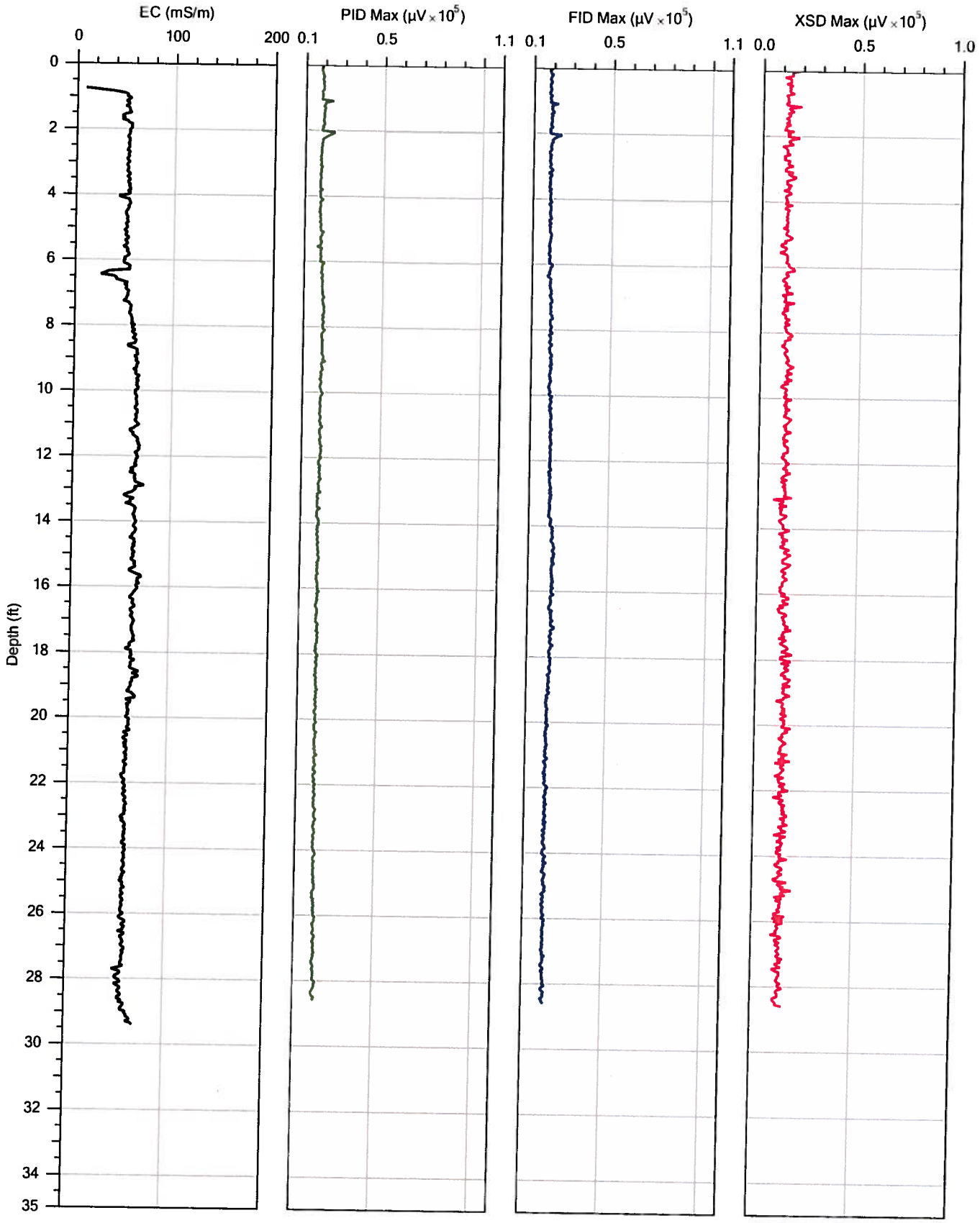


MATRIX ENVIRONMENTAL LLC

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-71.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/8/2012	
		Location:	

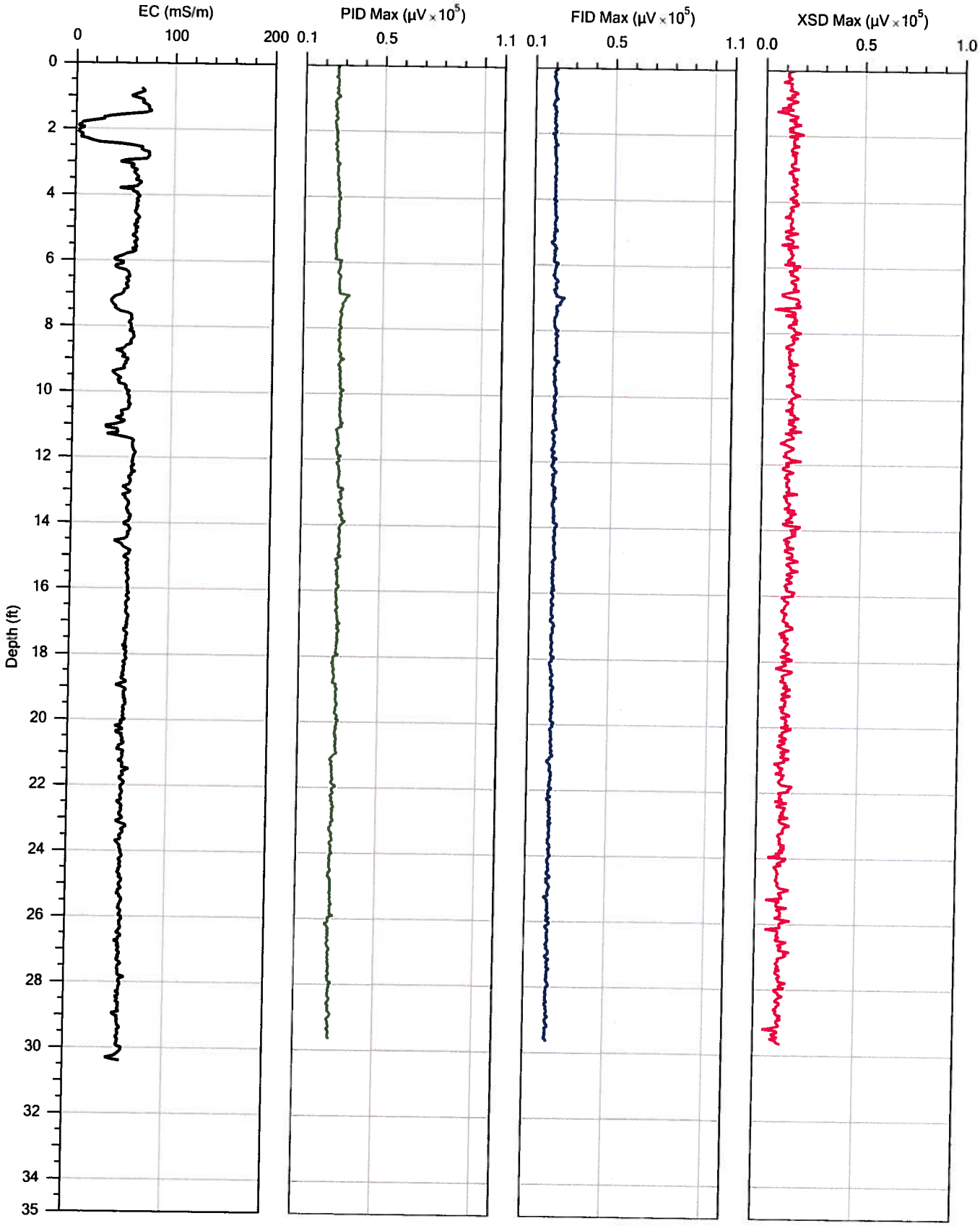


Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-72.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/8/2012	
		Location:	

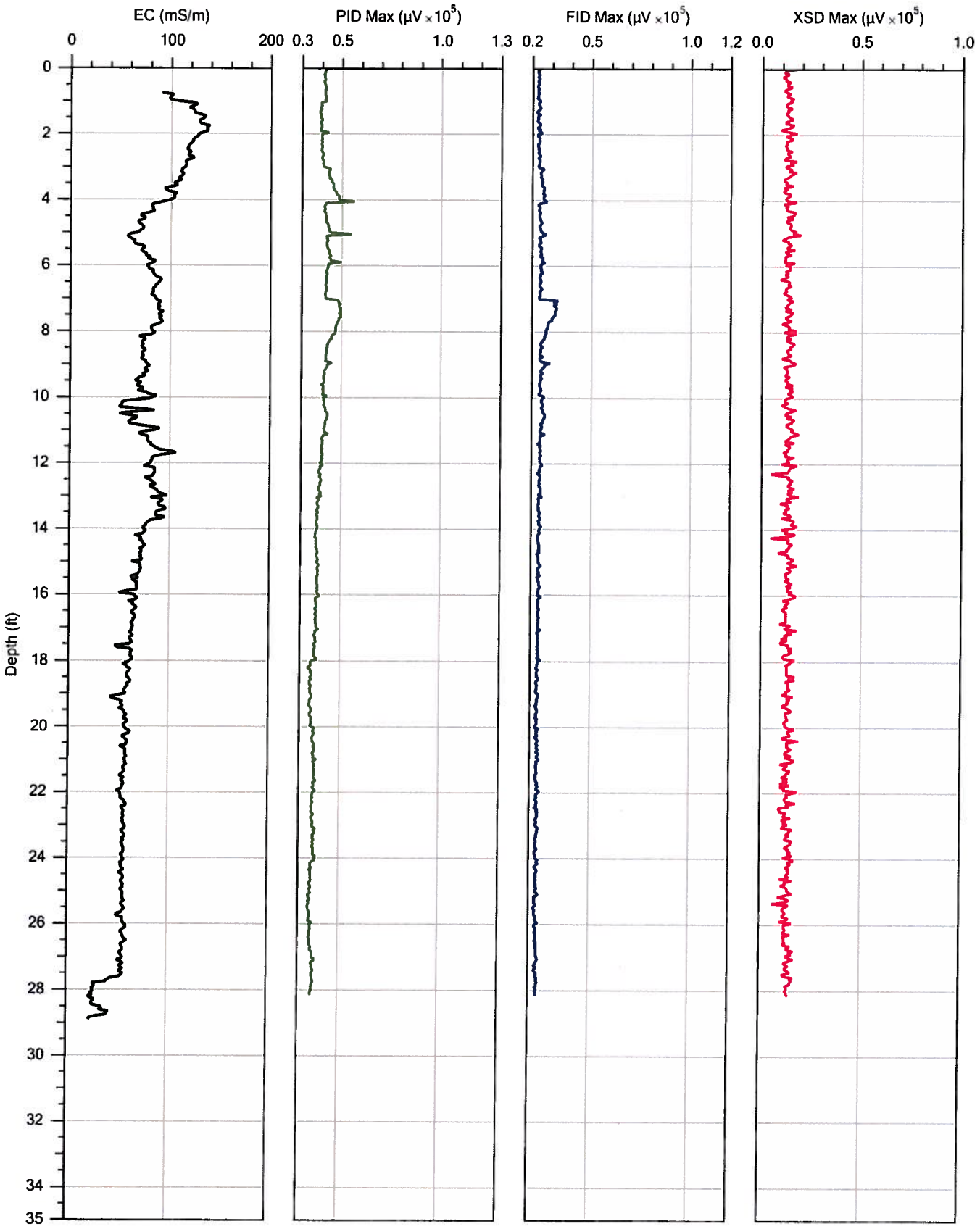


MATRIX ENVIRONMENTAL LLC

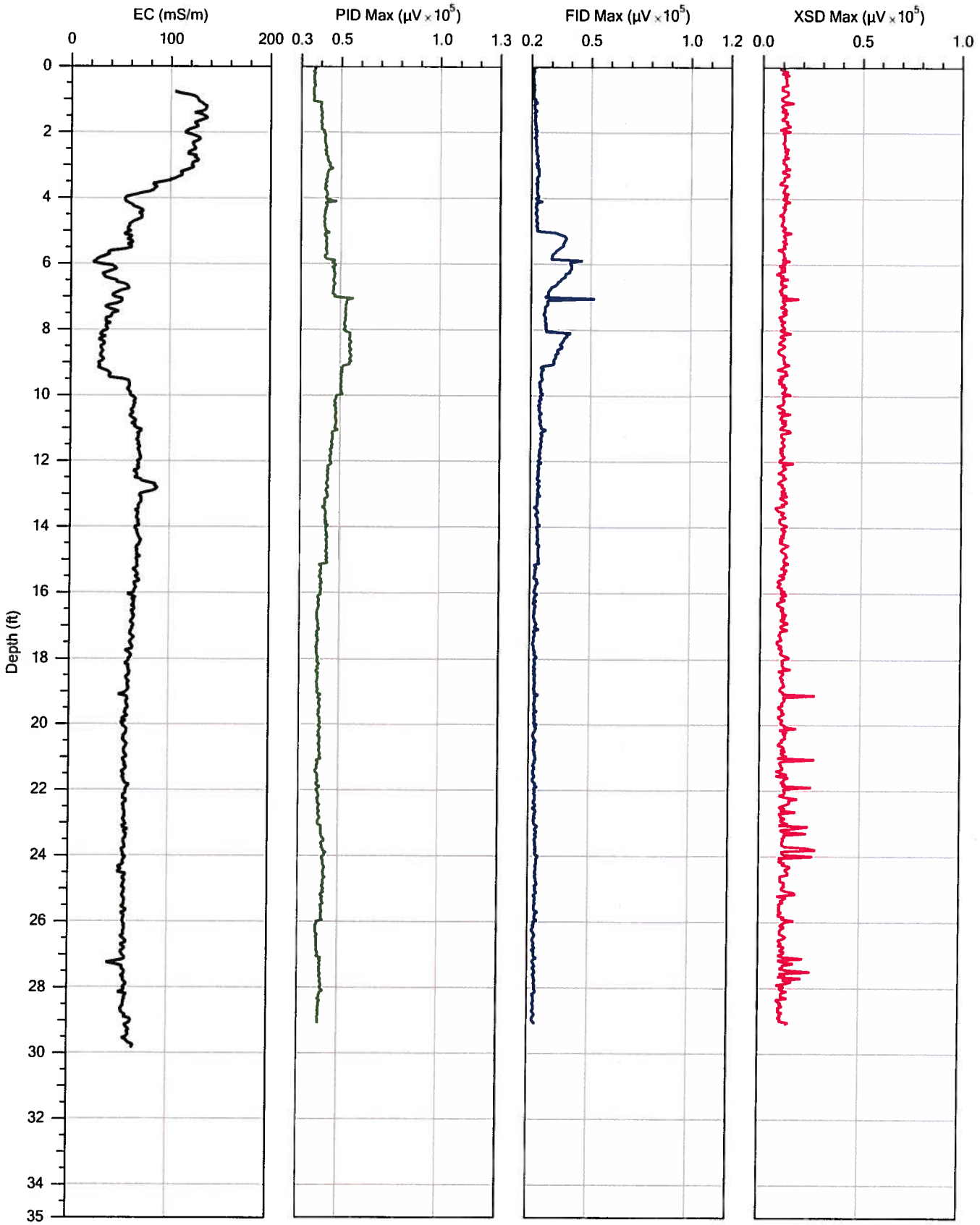
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-73.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/8/2012	
		Location:	



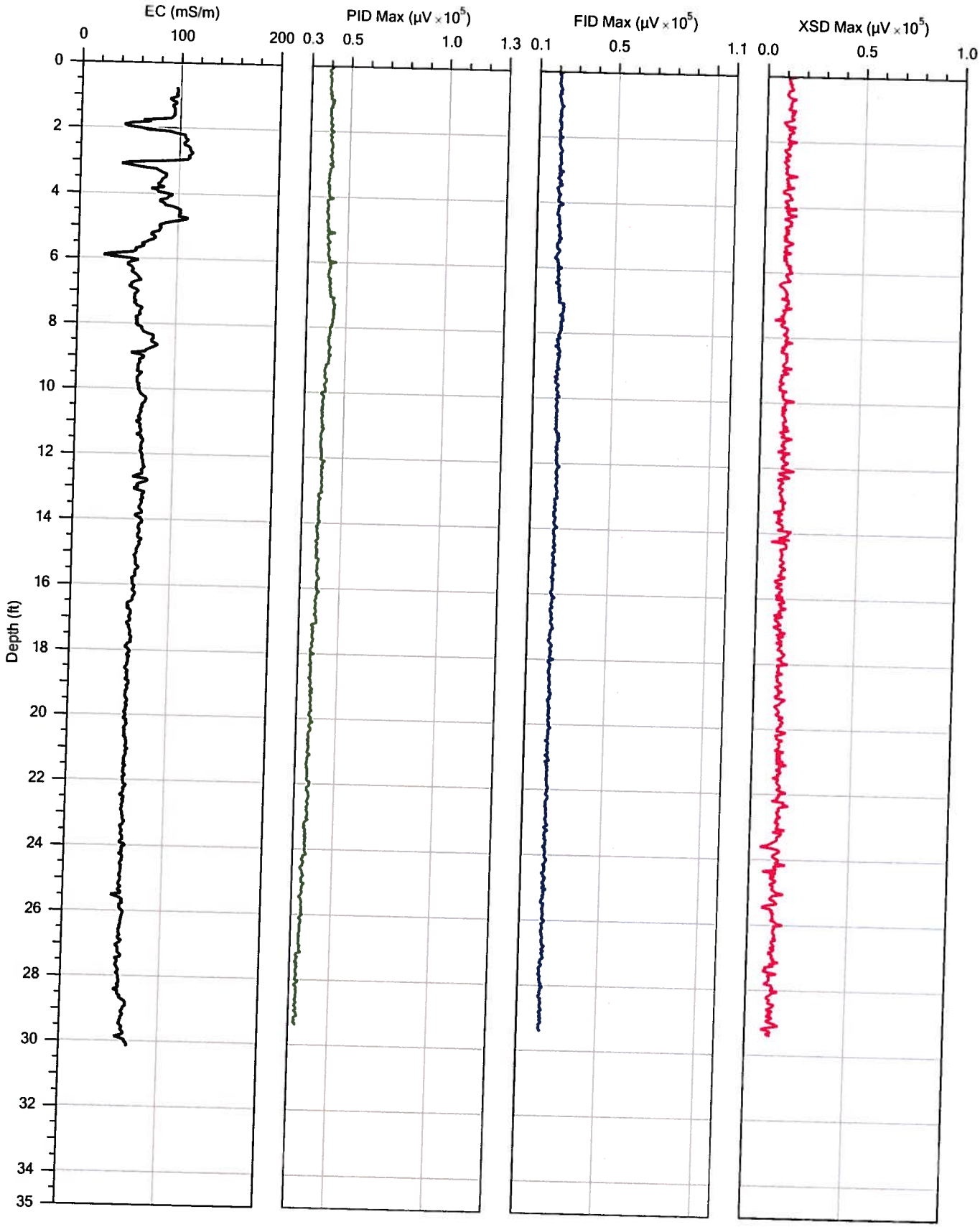
MATRIX ENVIRONMENTAL LLC	Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-74.MIP
	Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/8/2012
			Location:



Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-75.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/8/2012	
		Location:	



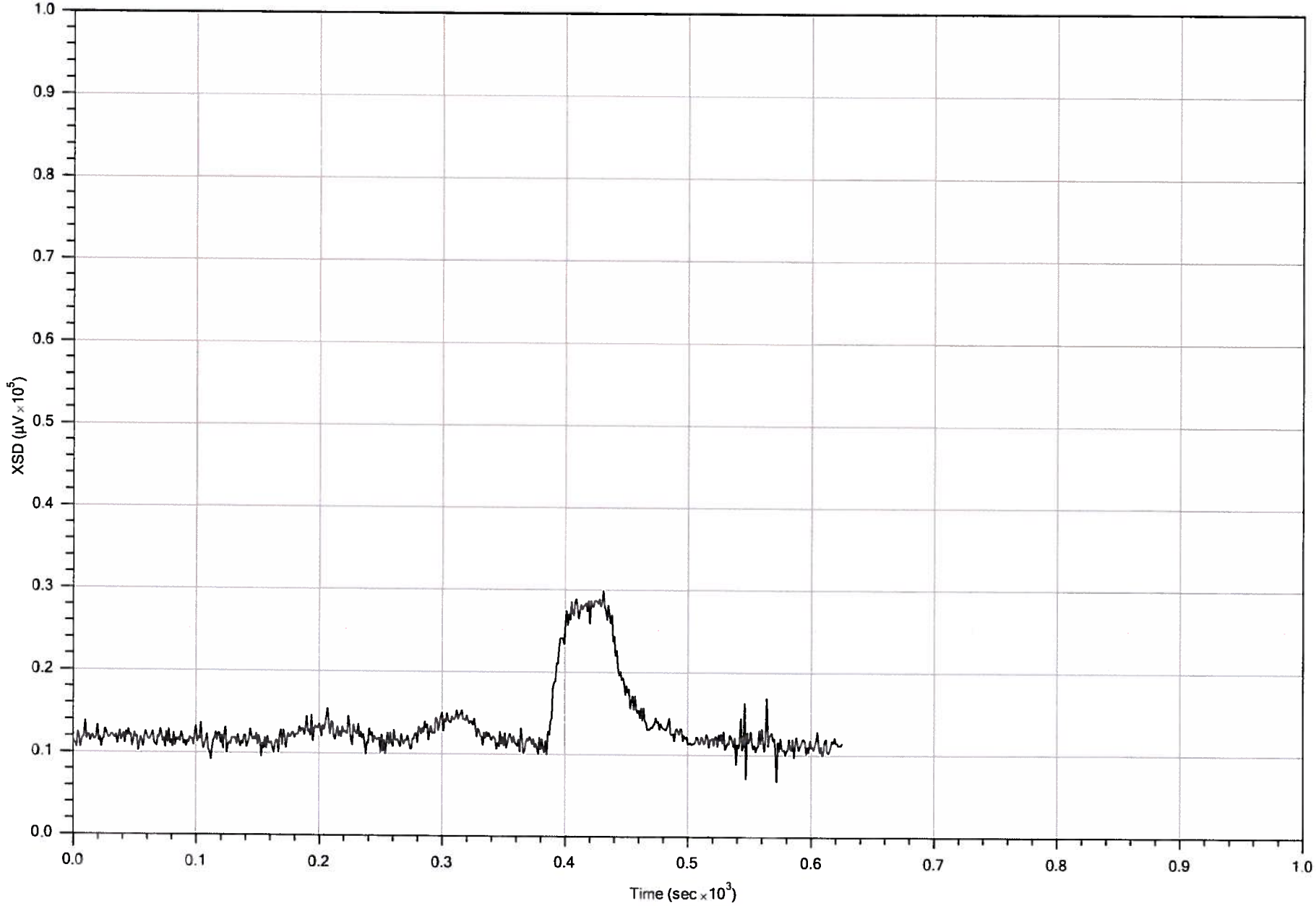
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-76.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/8/2012	
		Location:	



Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-77.MIP	
Project ID: 131-MNDS-12MIP	Client: Golder	Date: 11/8/2012	
		Location:	

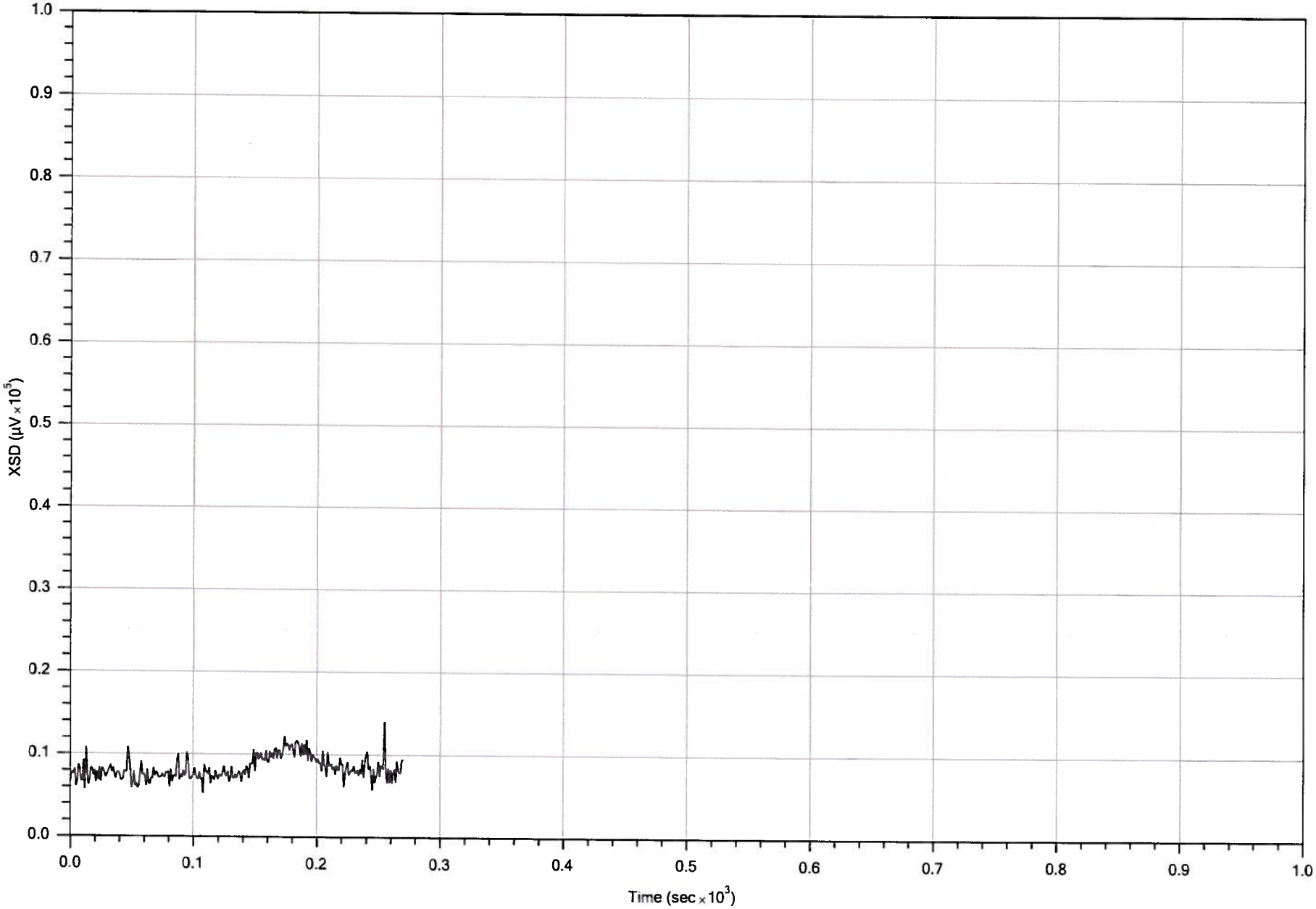
MIP QC

With detectors @ 100,000 μV



PRE-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-52.PRE.TIM	Date: 11/5/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 0, 0.5, 1, 5 ppm
		Compound: TCE	Peak Response: 29908 µV



POST-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-52.POST.TIM	Date: 11/5/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1 ppm
		Compound: TCE	Peak Response: 14039 µV

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-52.pre.tim
COMPOUND: TCE
CONCENTRATION: 0, 0.5, 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Nov 5 2012 14:21:30

RESPONSE TEST ATTENUATION CHANGES

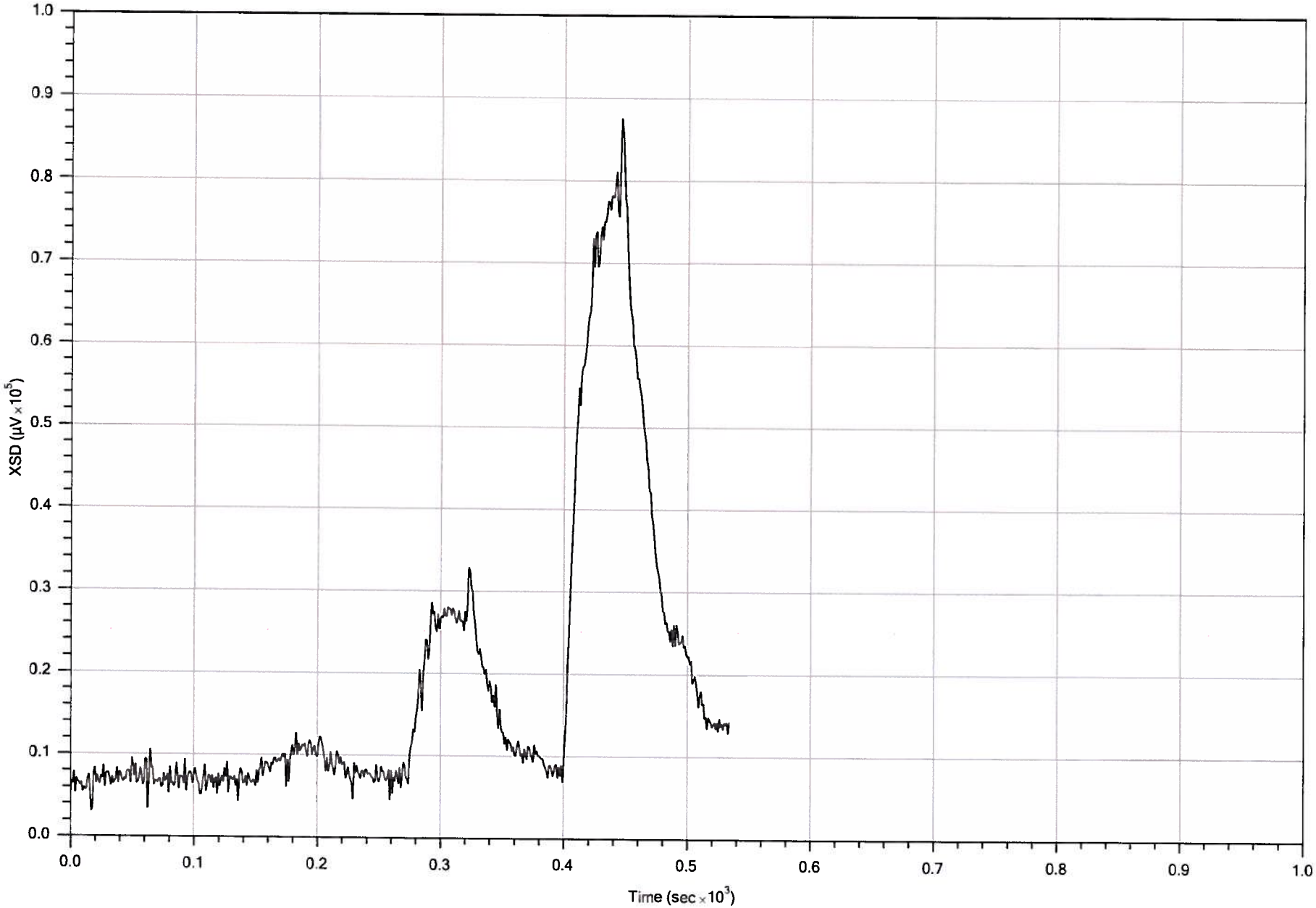
TIME	DET1	DET2	DET3	DET4
0	1	1	10	1

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-52.post.tim
COMPOUND: TCE
CONCENTRATION: 1 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Nov 5 2012 15:37:20

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

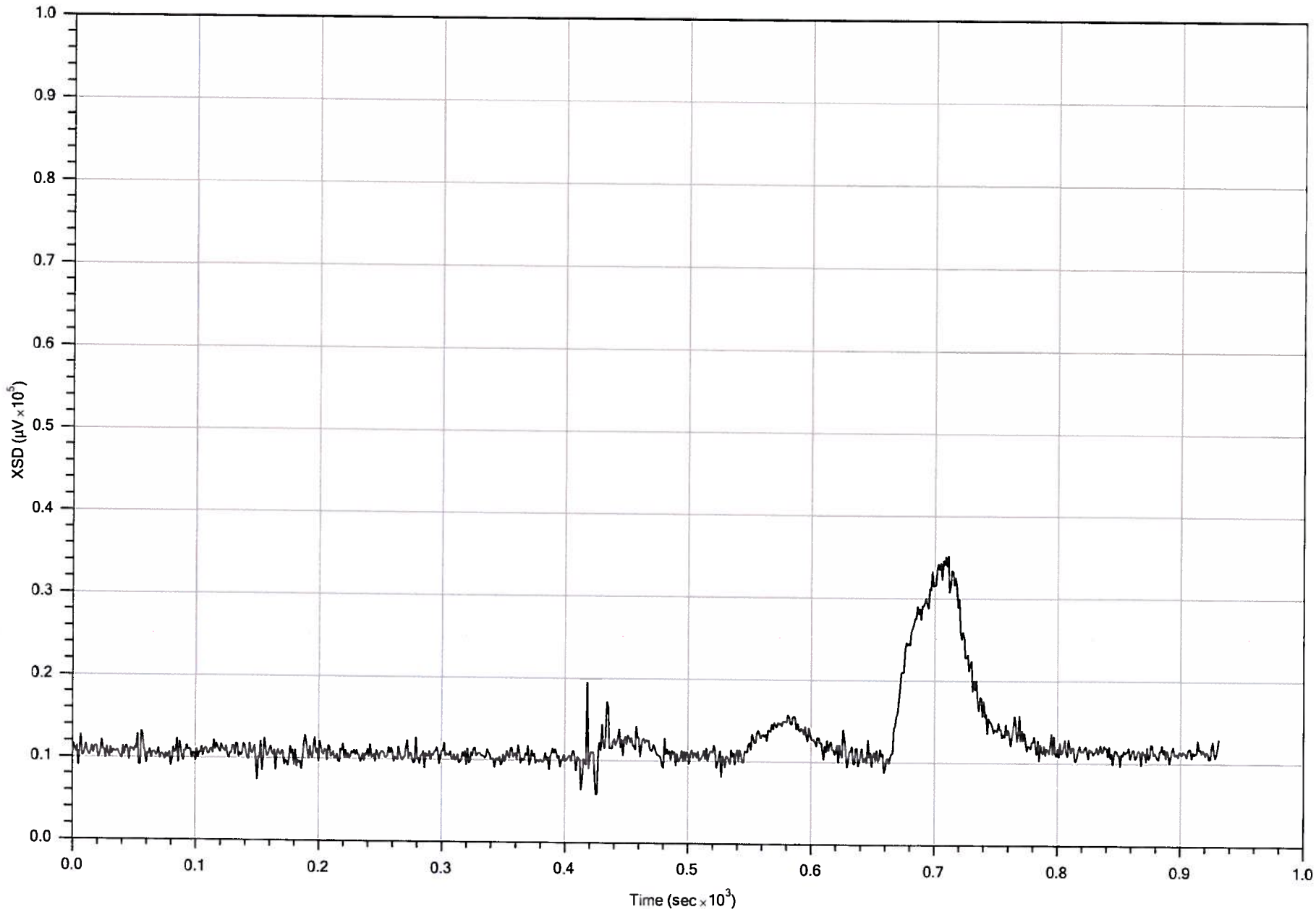
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-53.POST.TIM	Date: 11/5/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5, 25 ppm
		Compound: TCE	Peak Response: 87588 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-53.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Mon Nov 5 2012 16:58:30

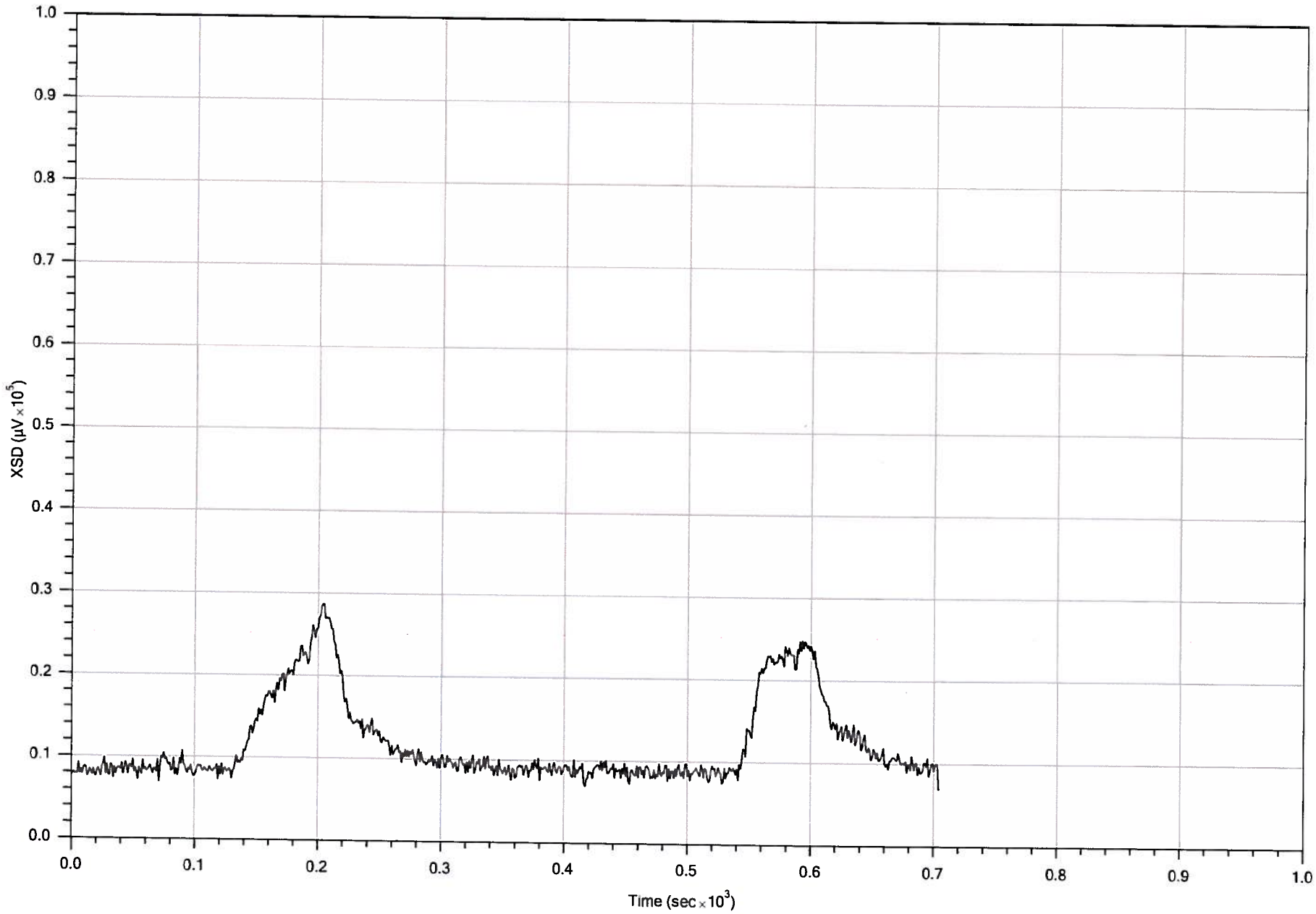
RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



PRE-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-54.PRE.TIM	Date: 11/6/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 0.5, 1, 5 ppm
		Compound: TCE	Peak Response: 35249 µV



POST-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-54.POST.TIM	Date: 11/6/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 5, 5 ppm
		Compound: TCE	Peak Response: 28687 µV

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-54.pre.tim
COMPOUND: TCE
CONCENTRATION: 0.5, 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 07:09:05

RESPONSE TEST ATTENUATION CHANGES

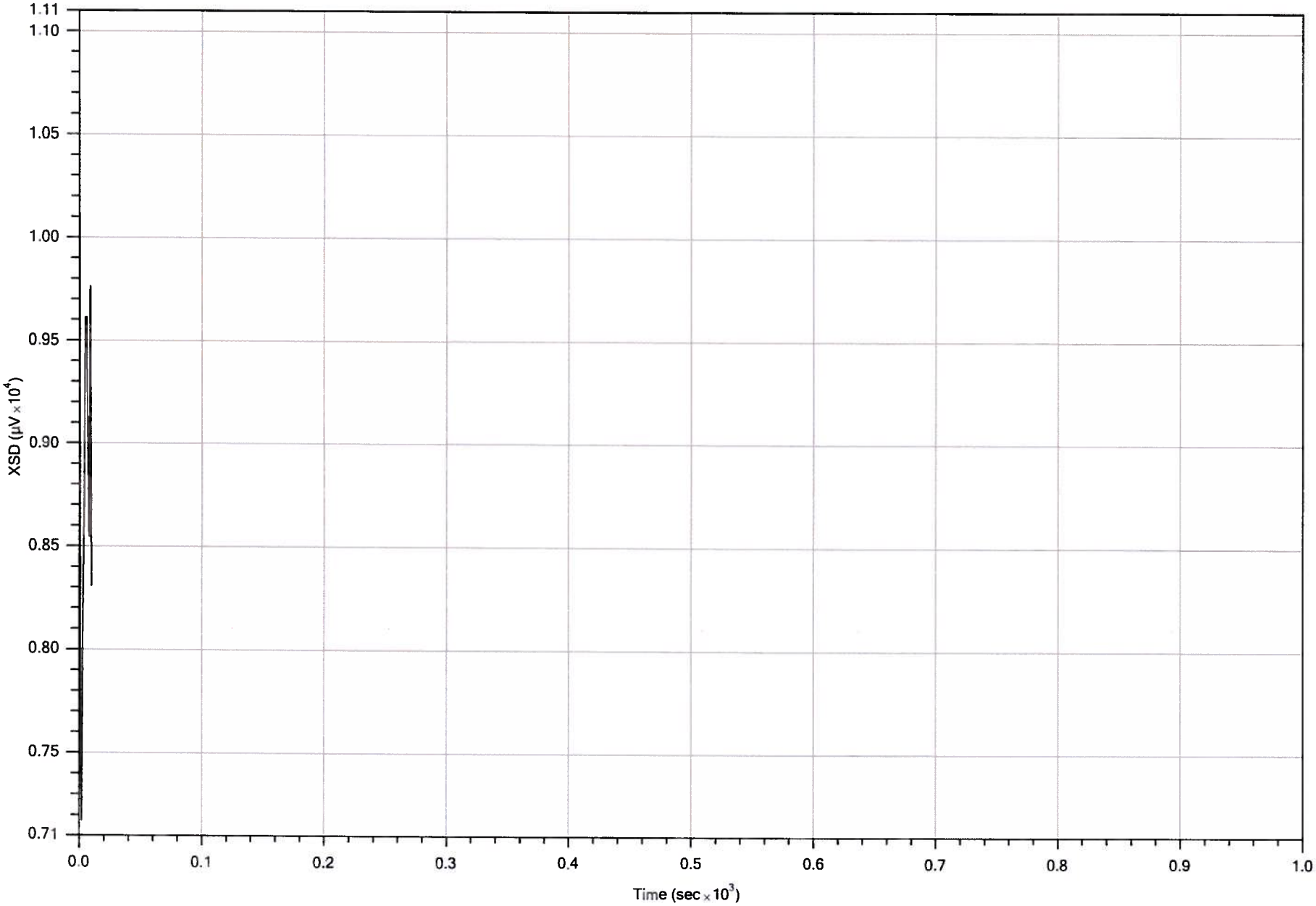
TIME	DET1	DET2	DET3	DET4
0	1	1	10	1

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-54.post.tim
COMPOUND: TCE
CONCENTRATION: 5, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 08:14:27

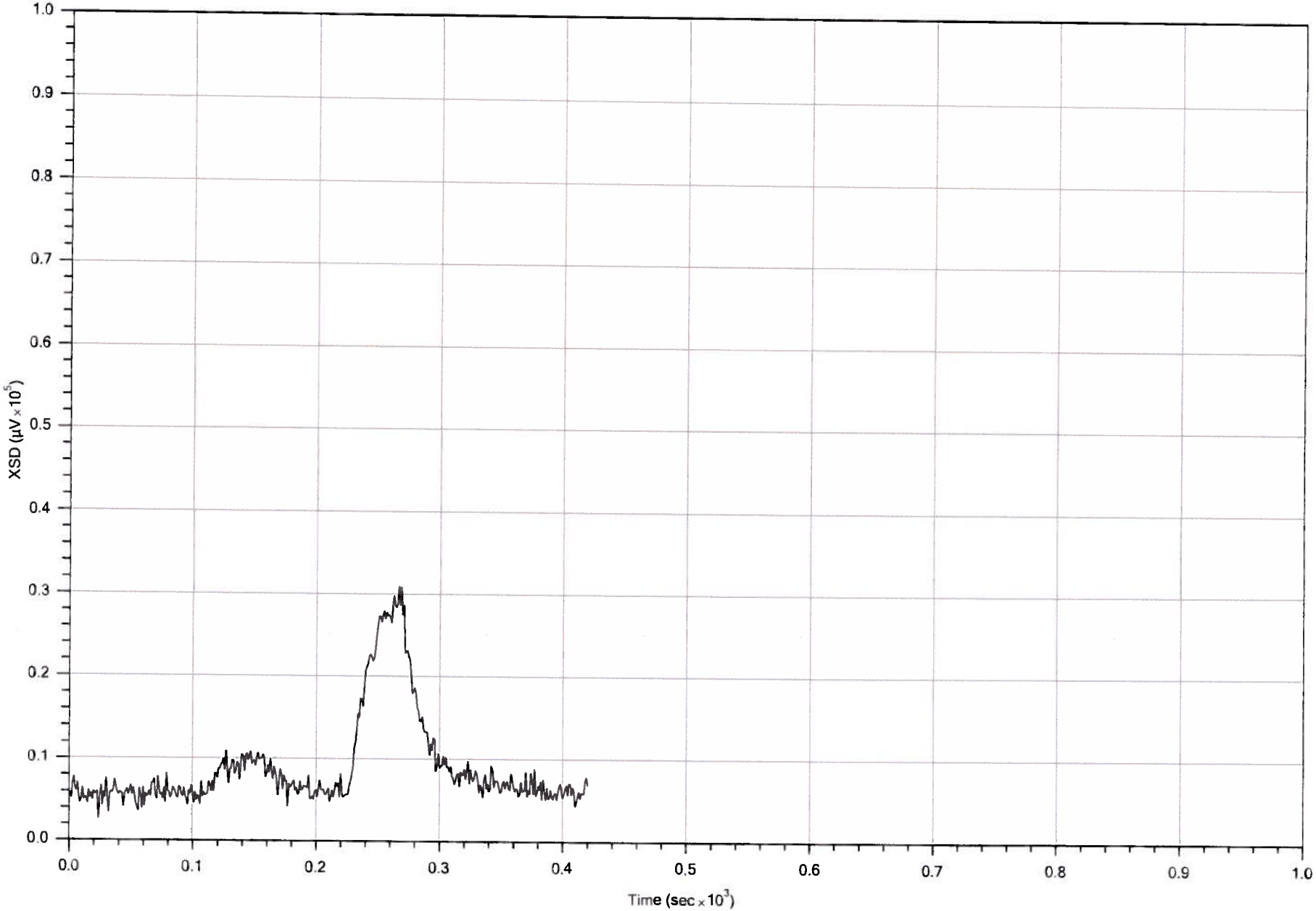
RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



PRE-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-55.PRE.TIM	Date: 11/6/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 5, 5 ppm
		Compound: TCE	Peak Response: 10681 µV



POST-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-55.POST.TIM	Date: 11/6/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 30976 µV

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-55.pre.tim
COMPOUND: TCE
CONCENTRATION: 5, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 08:39:11

RESPONSE TEST ATTENUATION CHANGES

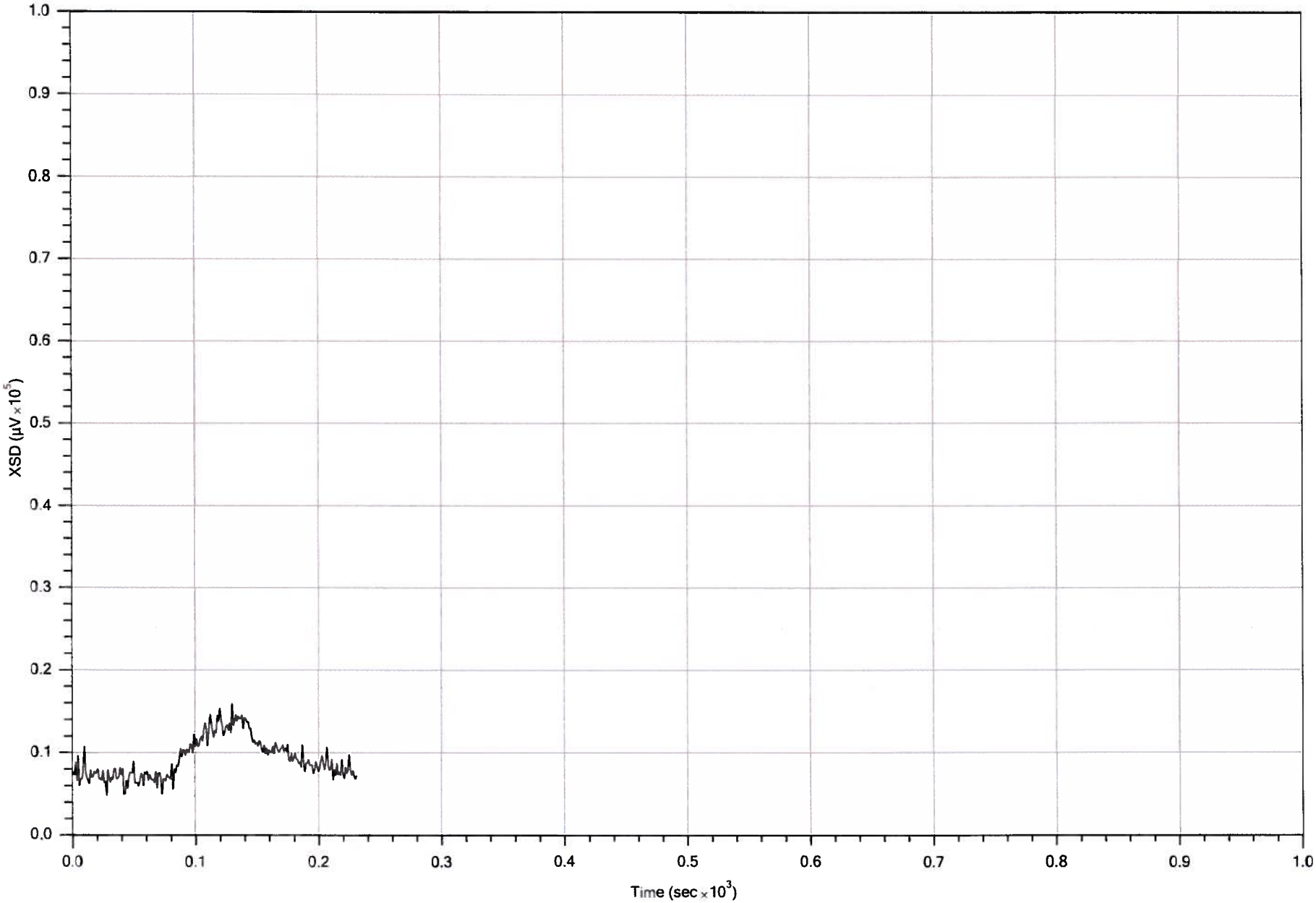
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1
9	4	4	10	1

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-55.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 09:25:58

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

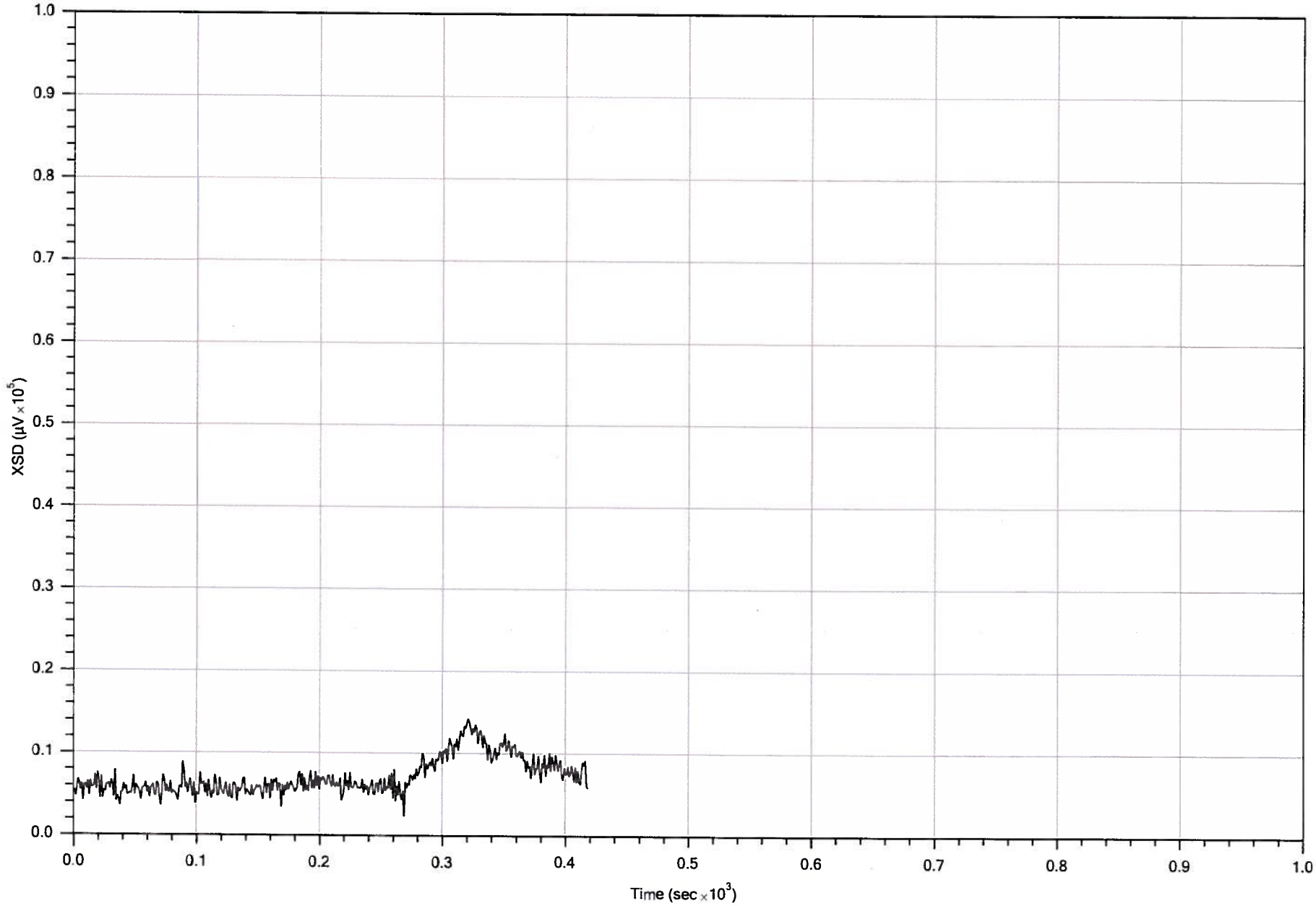
File: MIP-56.POST.TIM			Date: 11/6/2012
Company: Matrix Environmental	Operator: Mike Jenson	Detector: XSD	Concentration: 5 ppm
Project ID: 131-MNDS-12MIP	Client: Golder	Compound: TCE	Peak Response: 15946 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-56.post.tim
COMPOUND: TCE
CONCENTRATION: 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 10:49:45

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

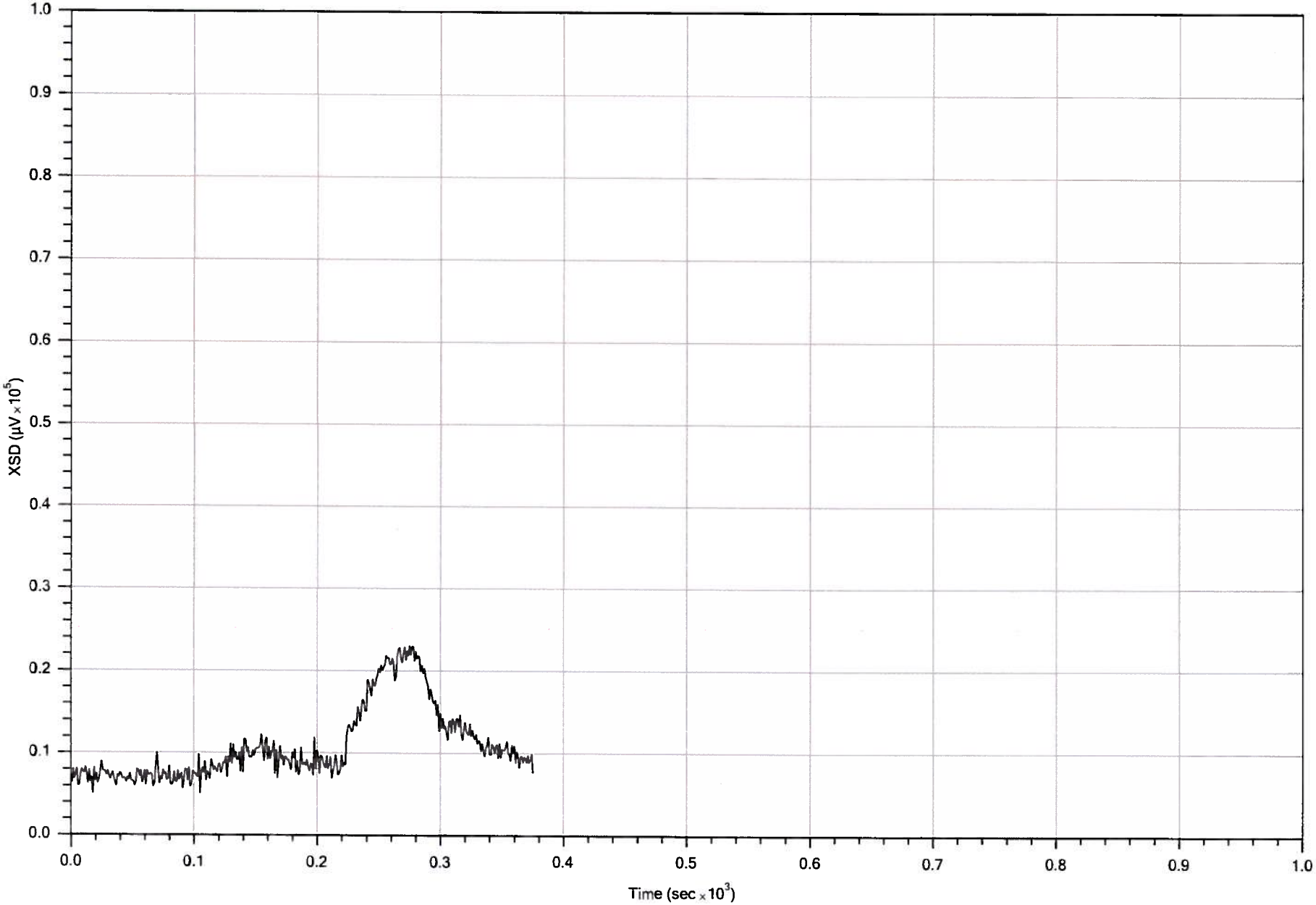
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-57.POST.TIM	Date: 11/6/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 14191 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-57.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 11:53:13

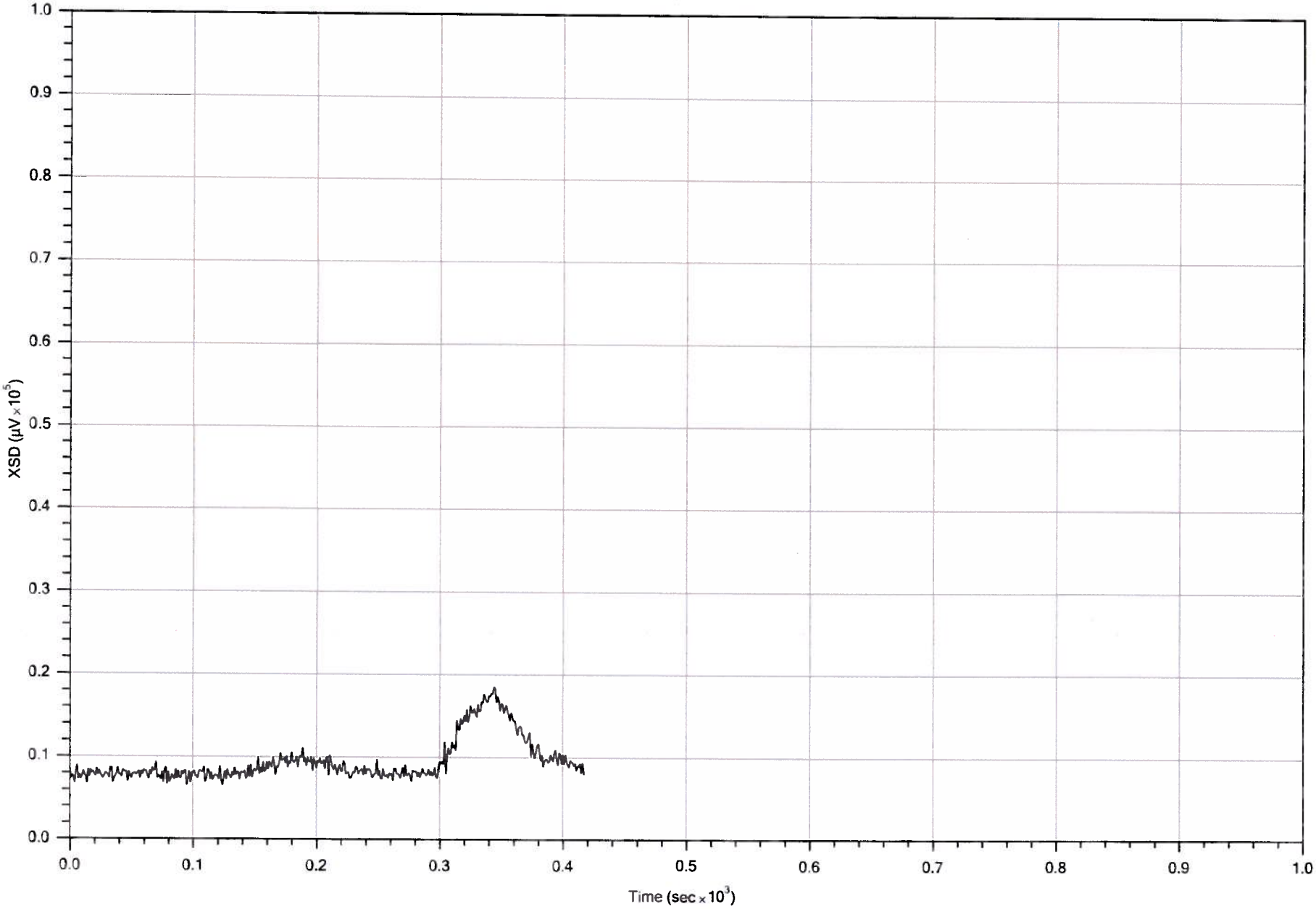
RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



PRE-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-58.PRE.TIM	Date: 11/6/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 23041 µV



POST-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-58.POST.TIM	Date: 11/6/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 18540 µV

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-58.pre.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 13:36:45

RESPONSE TEST ATTENUATION CHANGES

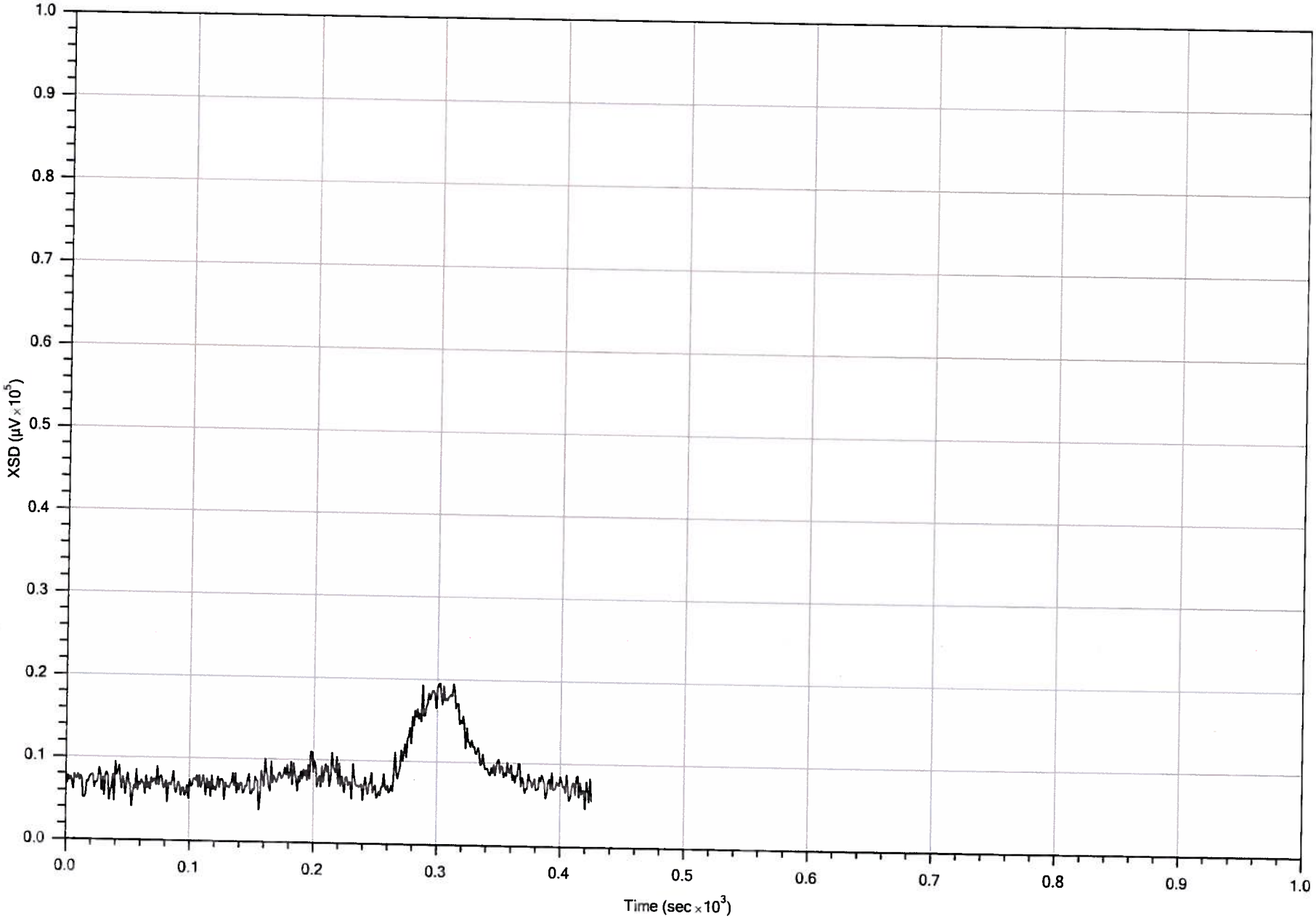
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-58.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 14:27:44

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

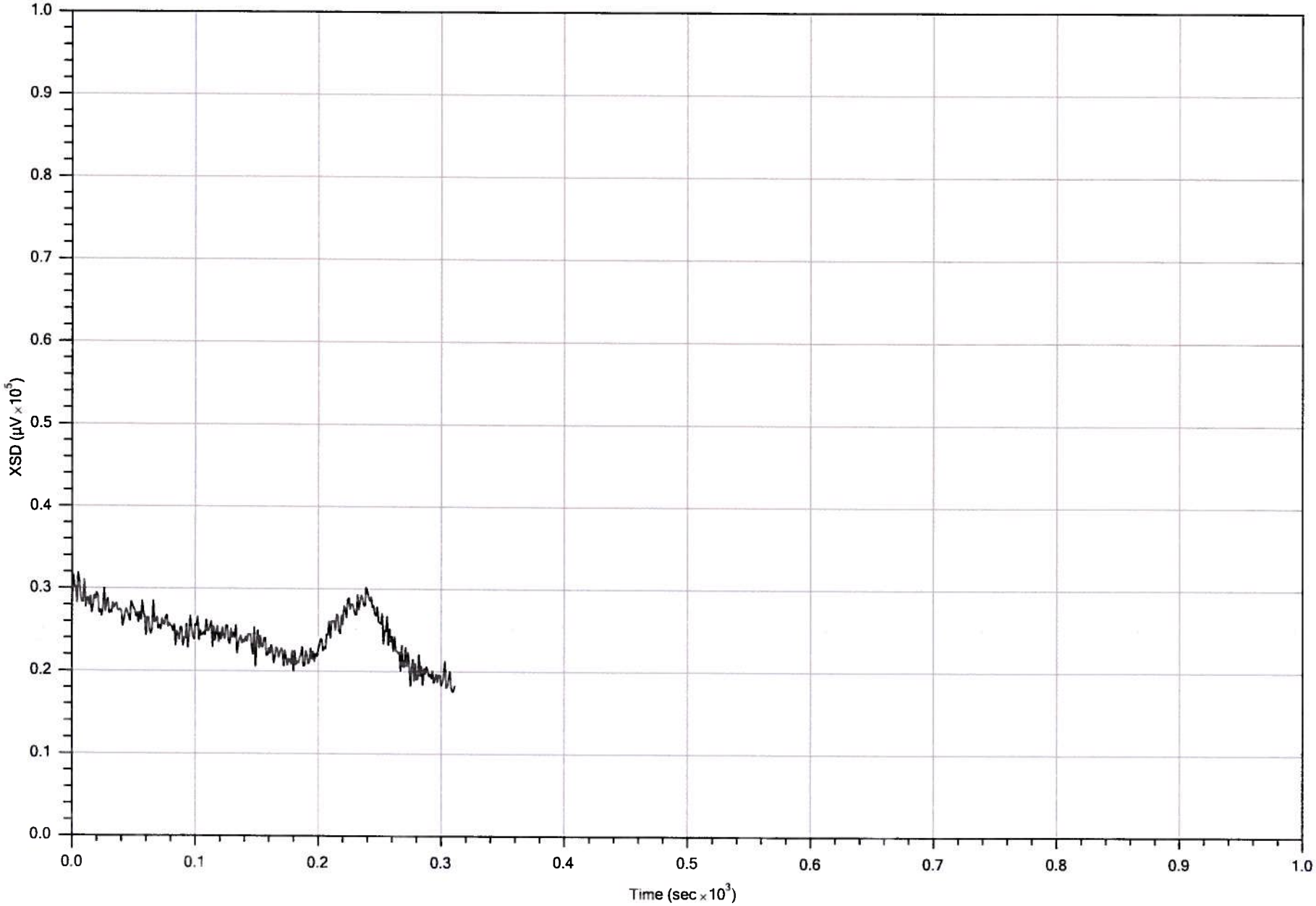
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-59.POST.TIM	Date: 11/6/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1. 5 ppm
		Compound: TCE	Peak Response: 19608 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-59.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 15:29:47

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

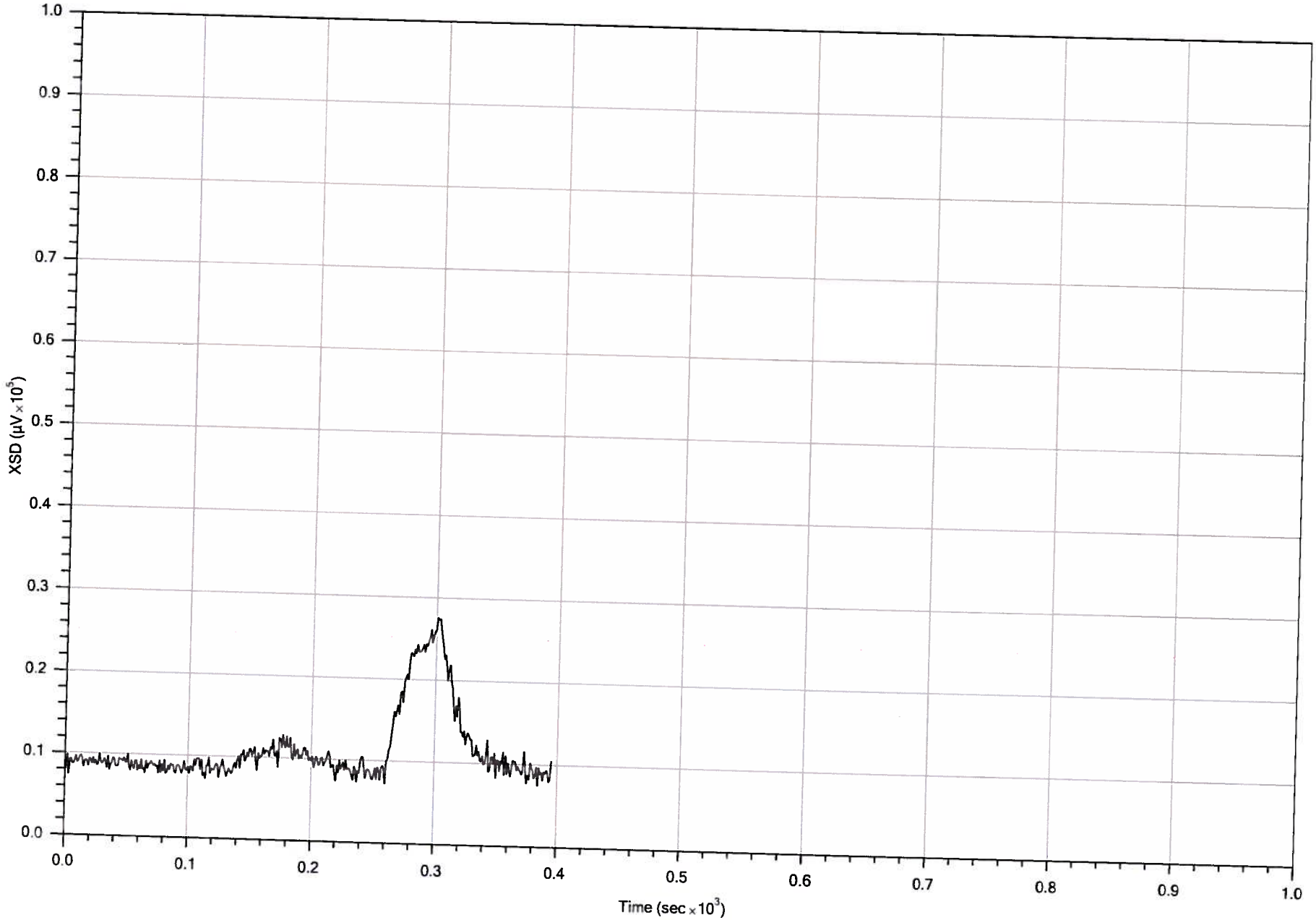
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-60.POST.TIM	Date: 11/6/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 31892 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-60.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 16:44:06

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

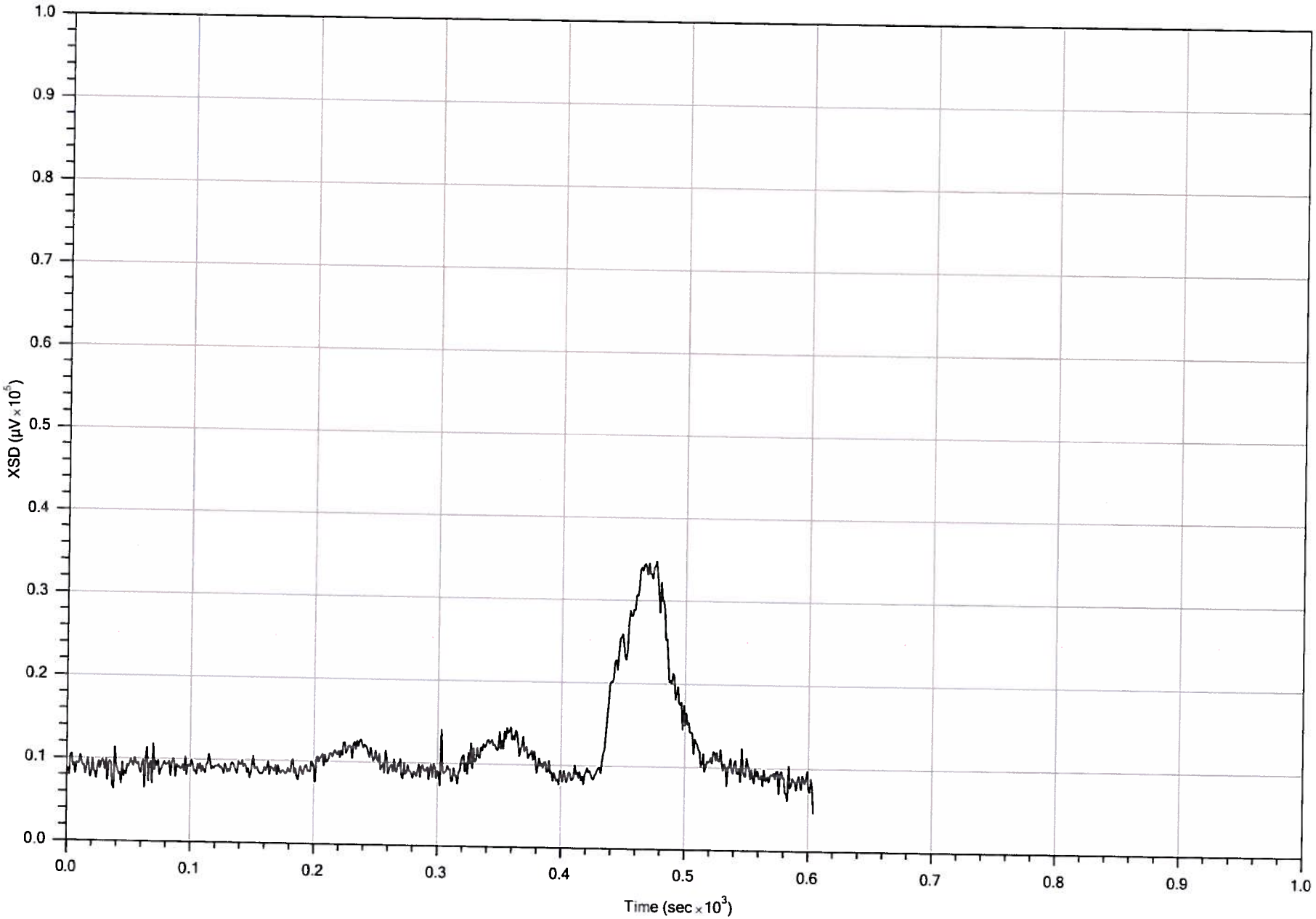
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-61.POST.TIM	Date: 11/6/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 27619 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-61.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Tue Nov 6 2012 17:36:30

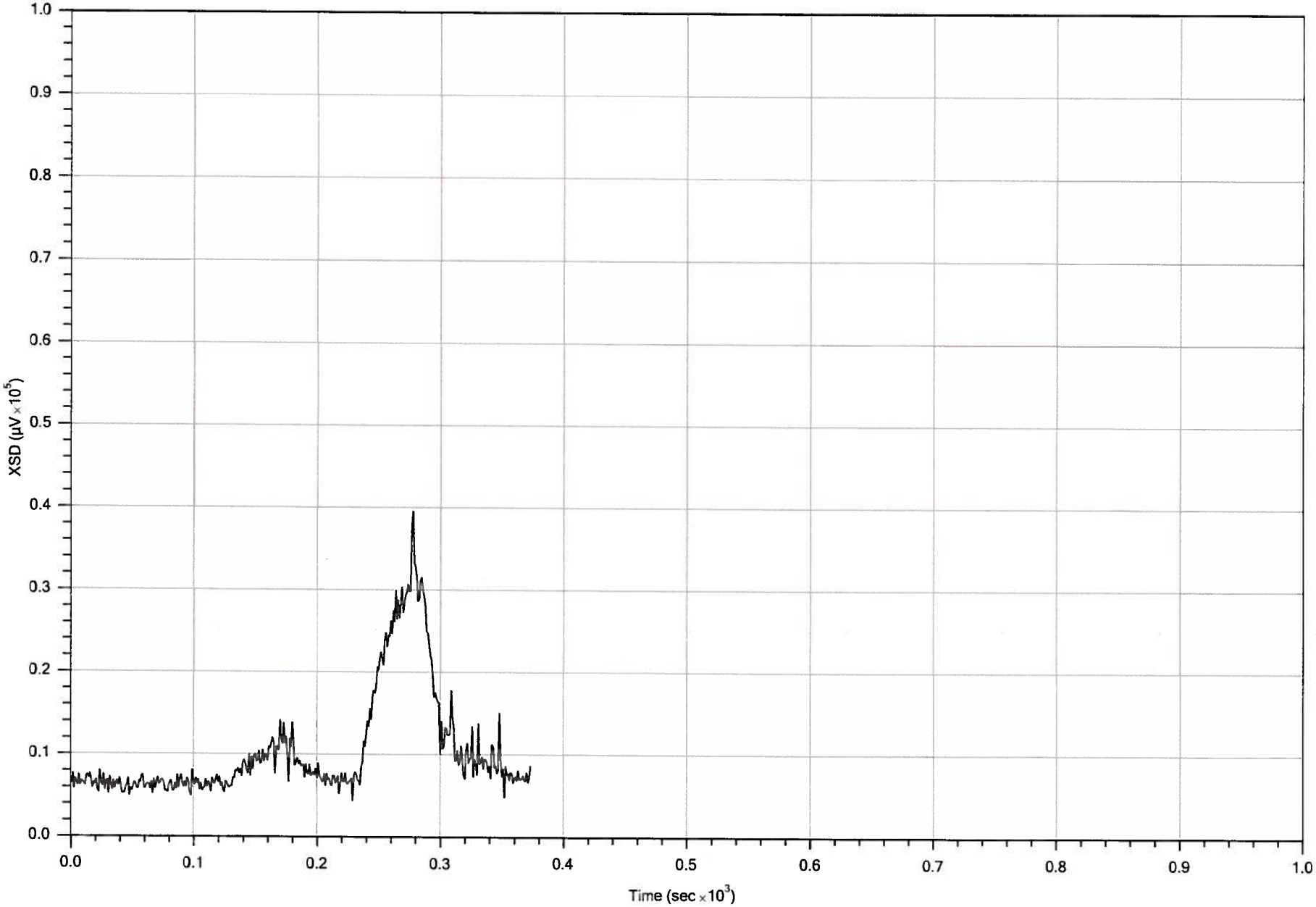
RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



PRE-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-62.PRE.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 0, 0.5, 1, 5 ppm
		Compound: TCE	Peak Response: 34791 µV



POST-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-62.POST.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 39598 µV

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-62.pre.tim
COMPOUND: TCE
CONCENTRATION: 0, 0.5, 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 07:20:10

RESPONSE TEST ATTENUATION CHANGES

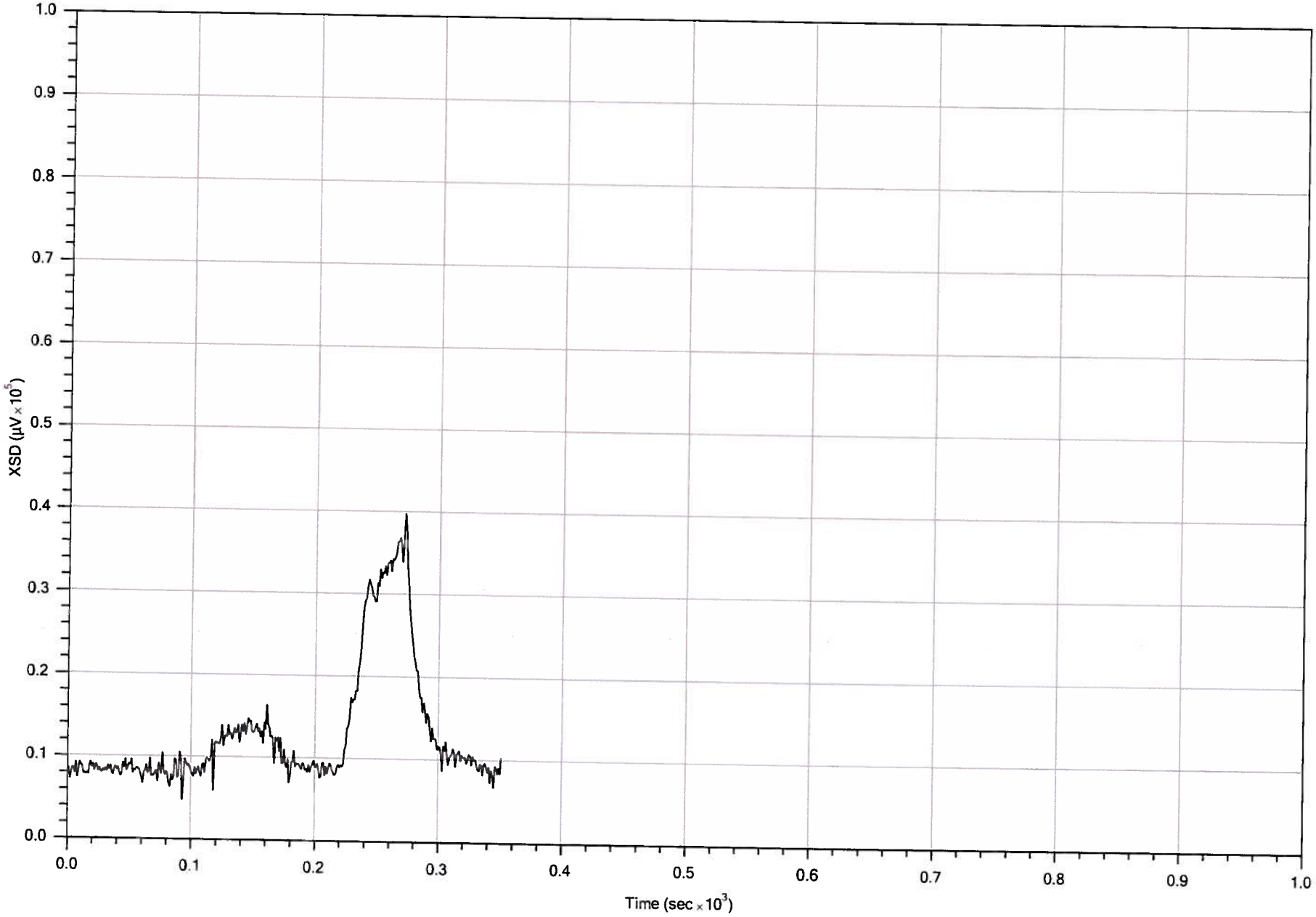
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-62.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 08:28:29

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

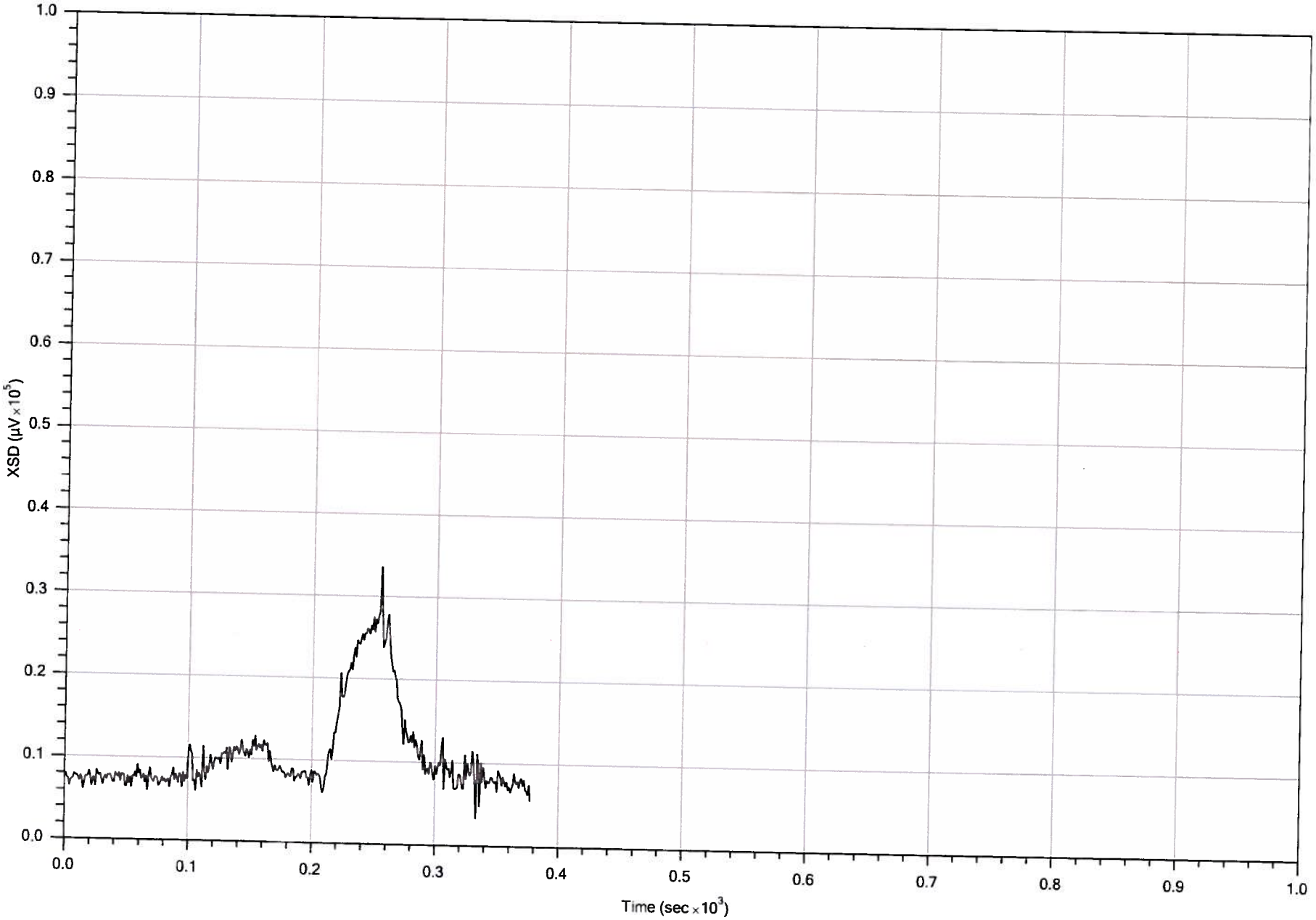
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-63.POST.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 39827 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-63.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 09:27:15

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

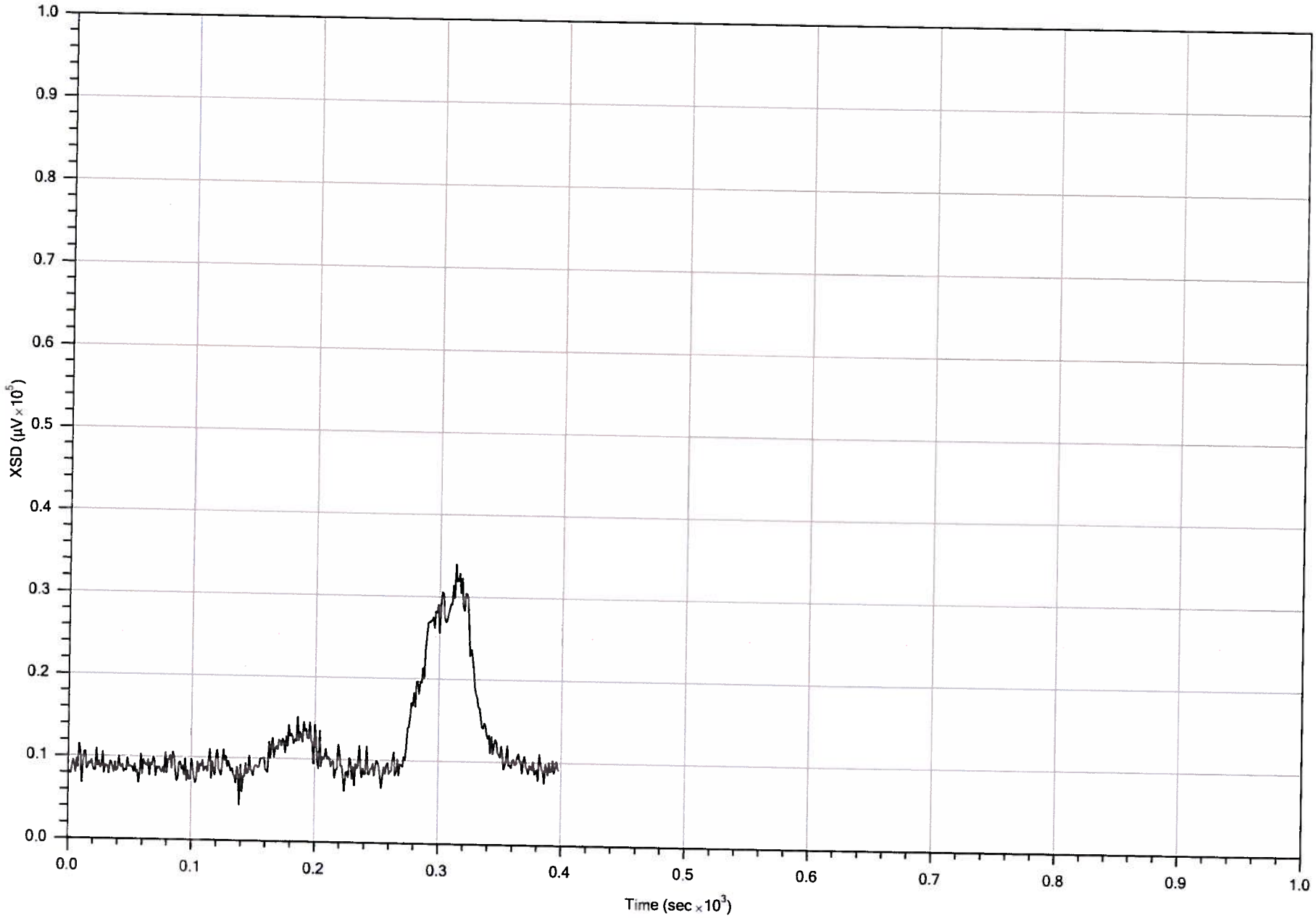
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-64.POST.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 33647 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-64.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 10:27:26

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

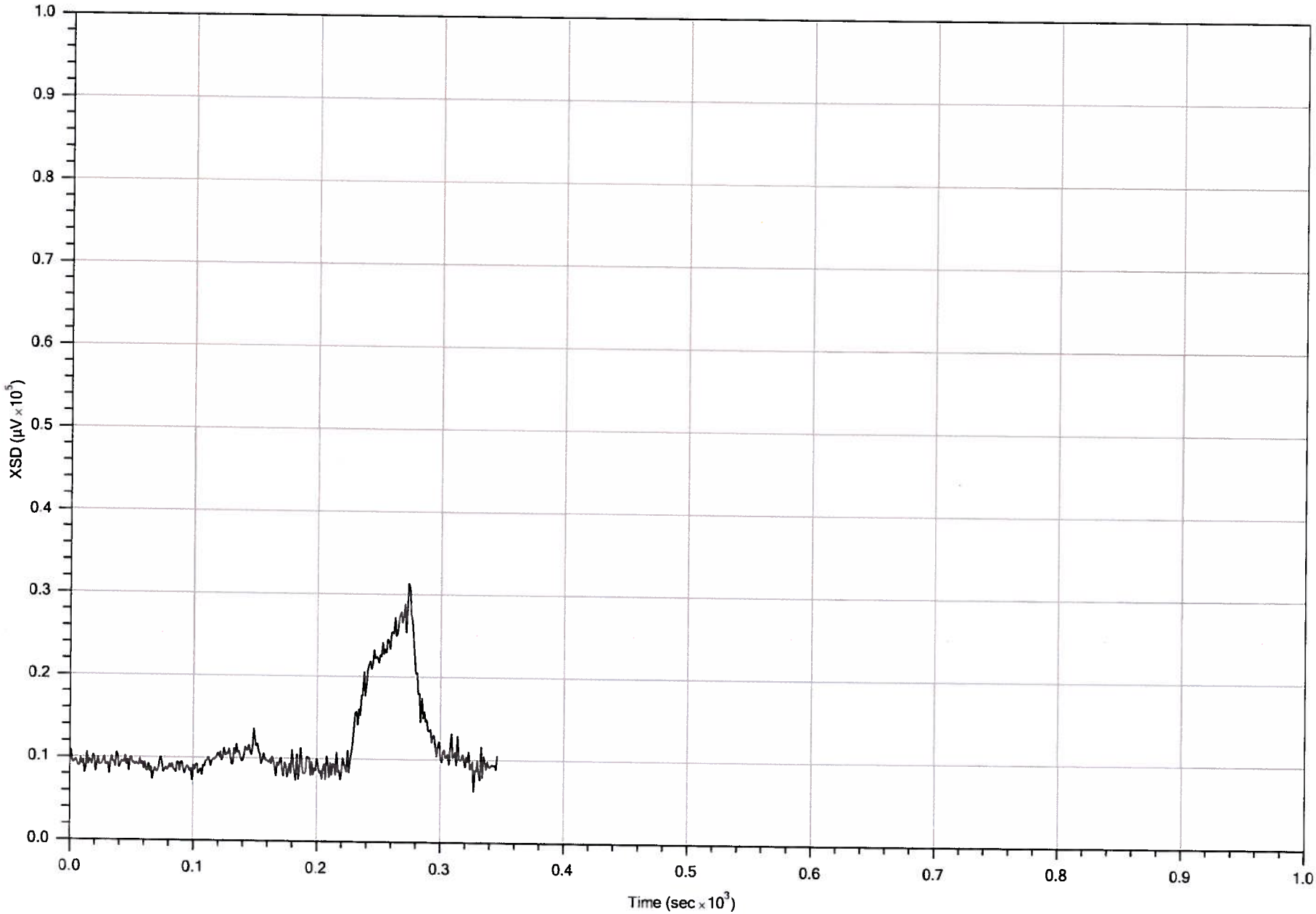
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-65.POST.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 34028 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-65.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 11:36:14

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

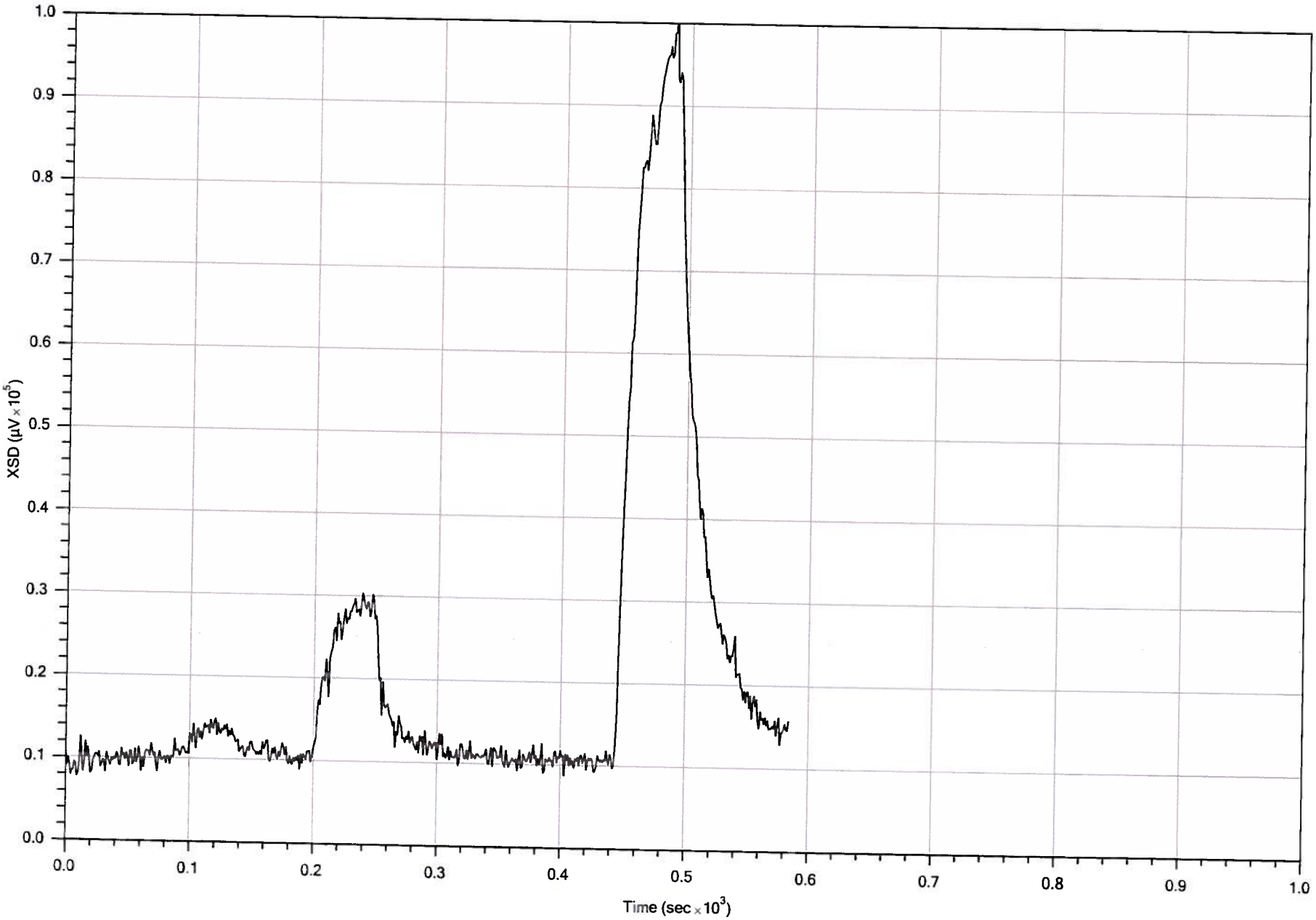
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-66.POST.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 31358 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-66.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 12:32:06

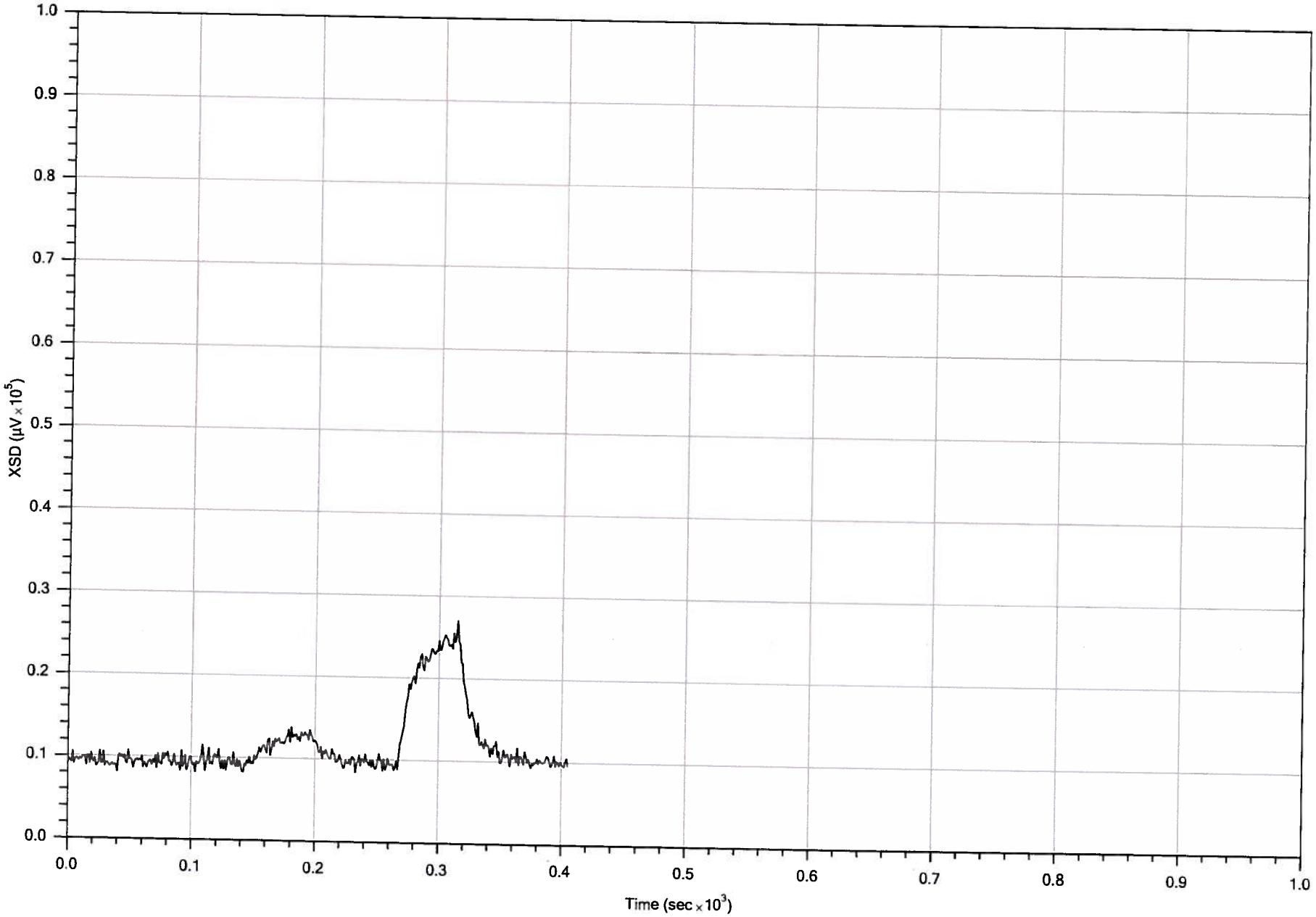
RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



PRE-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-67.PRE.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5, 25 ppm
		Compound: TCE	Peak Response: 101169 µV



MATRIX ENVIRONMENTAL LLC

POST-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-67.POST.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 27085 µV

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-67.pre.tim
COMPOUND: TCE
CONCENTRATION: 1, 5, 25 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 13:57:47

RESPONSE TEST ATTENUATION CHANGES

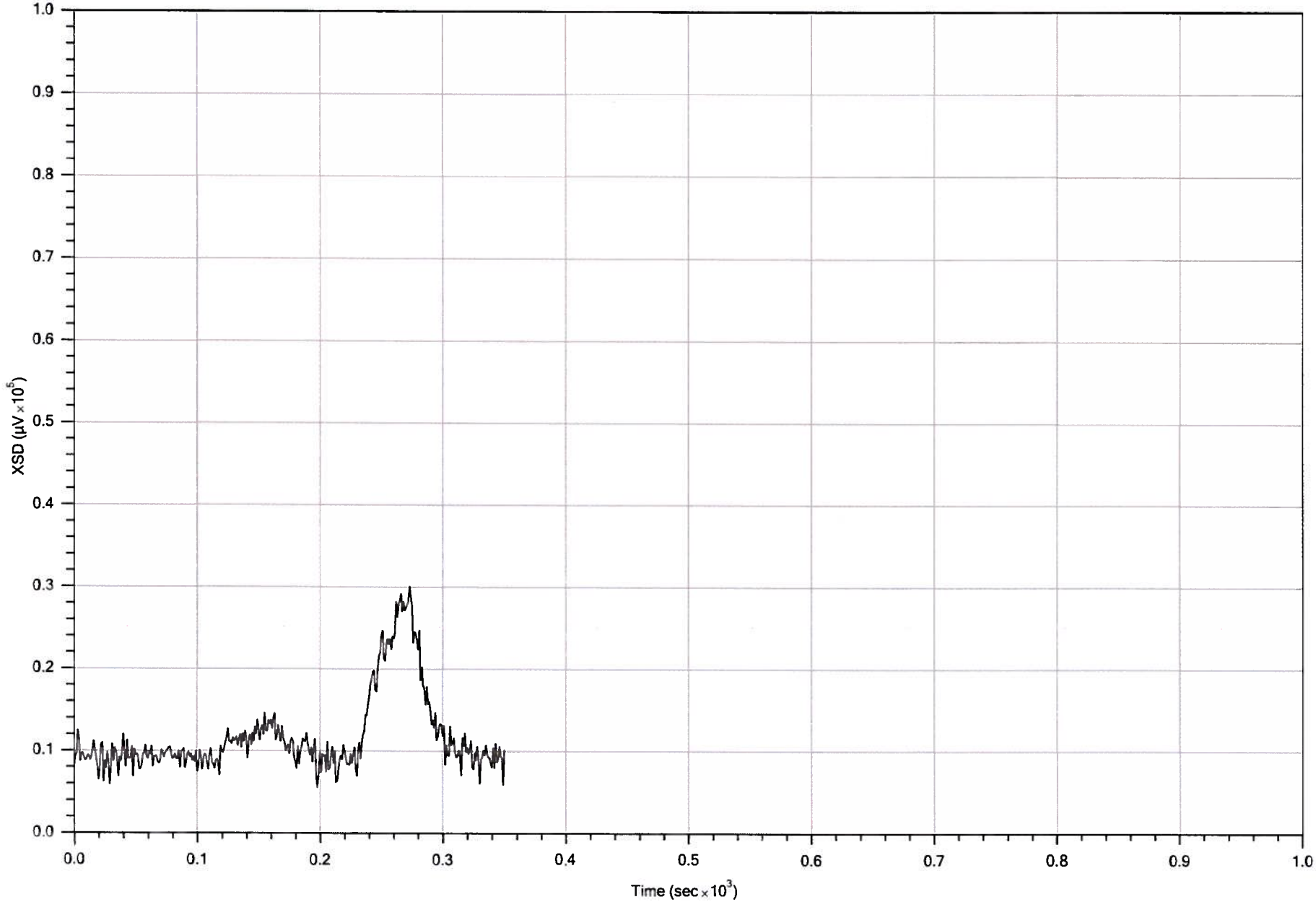
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-67.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 14:49:49

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

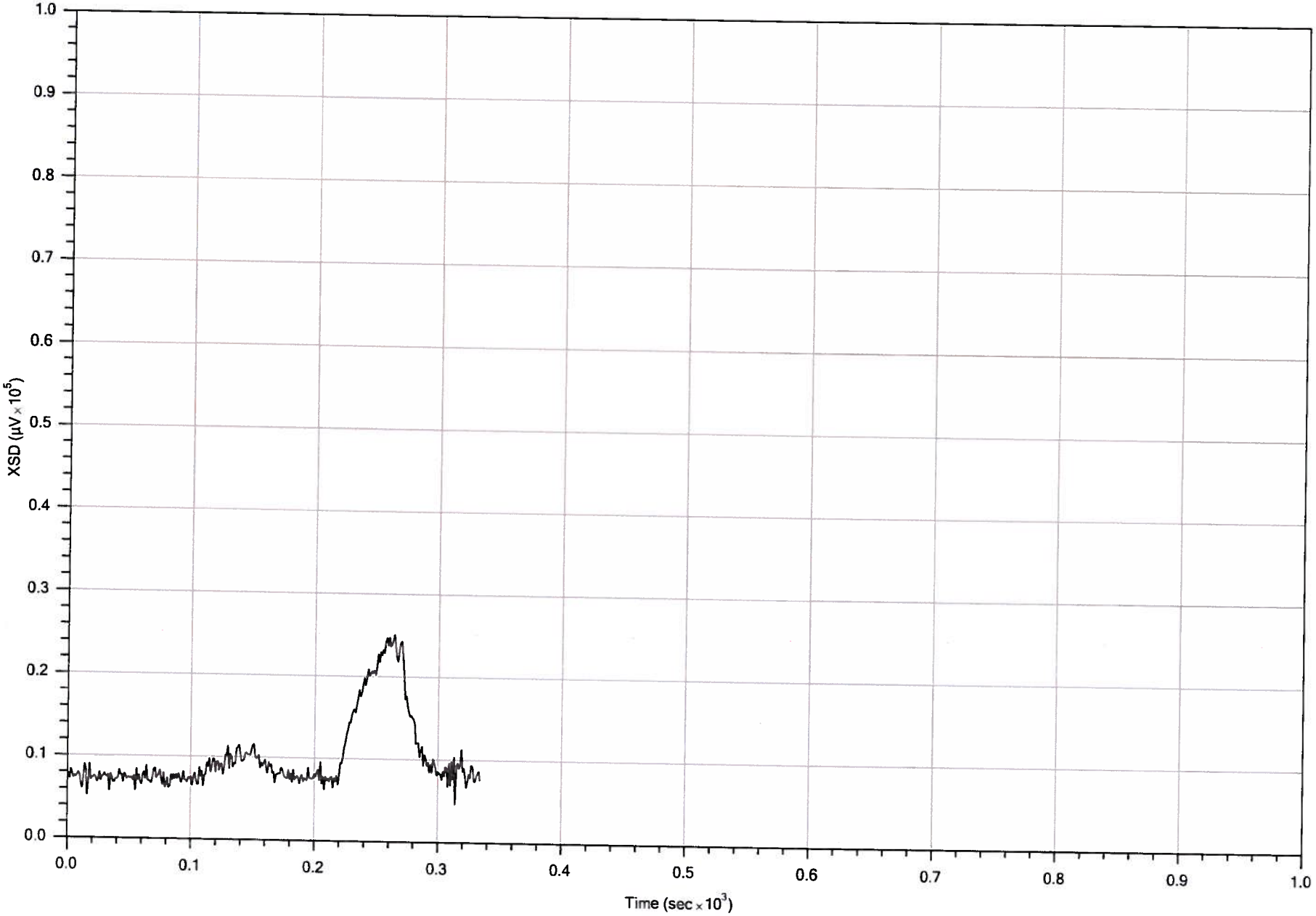
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-68.POST.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 30137 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-68.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 15:54:46

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

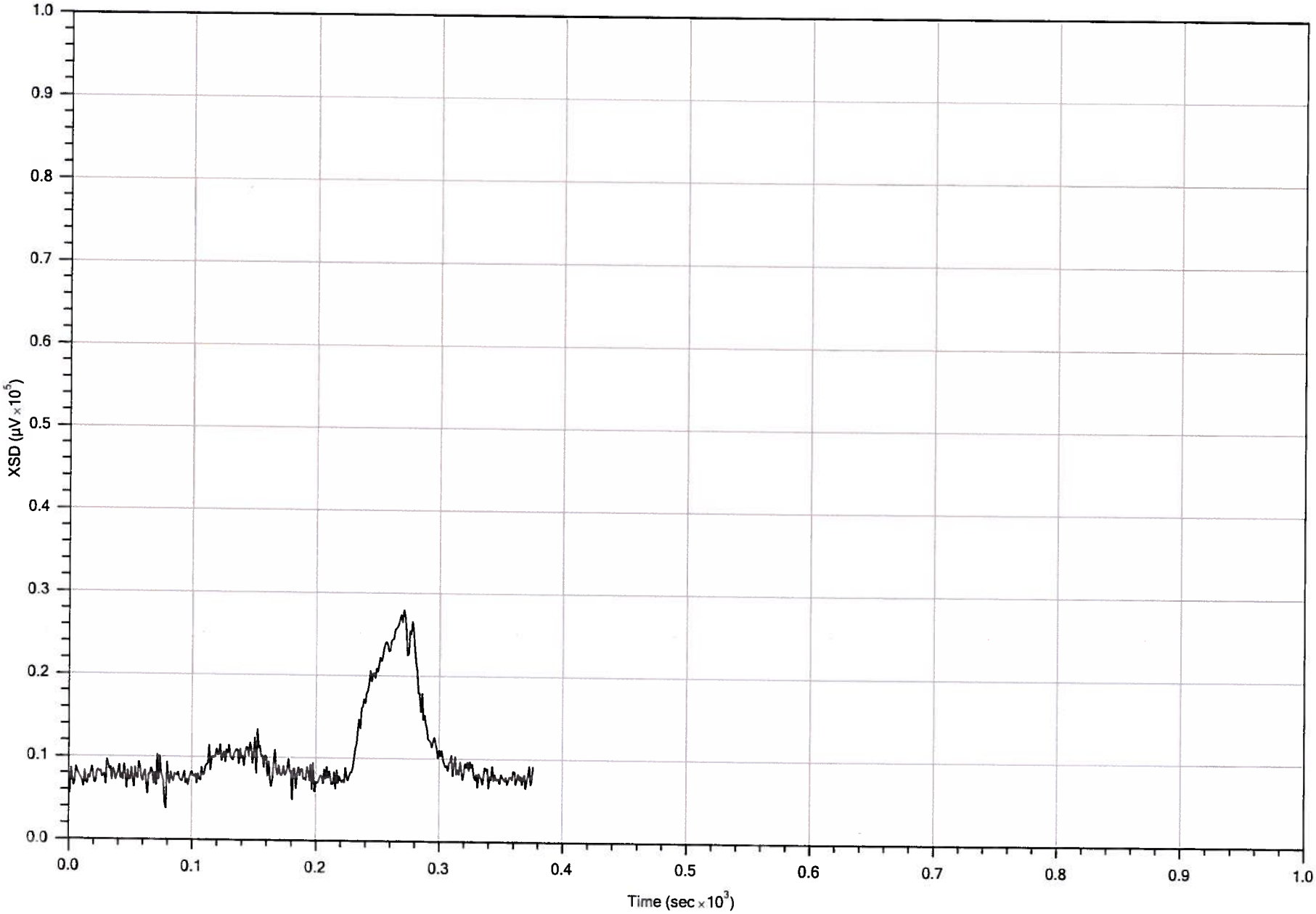
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-69.POST.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 25101 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-69.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 16:47:36

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

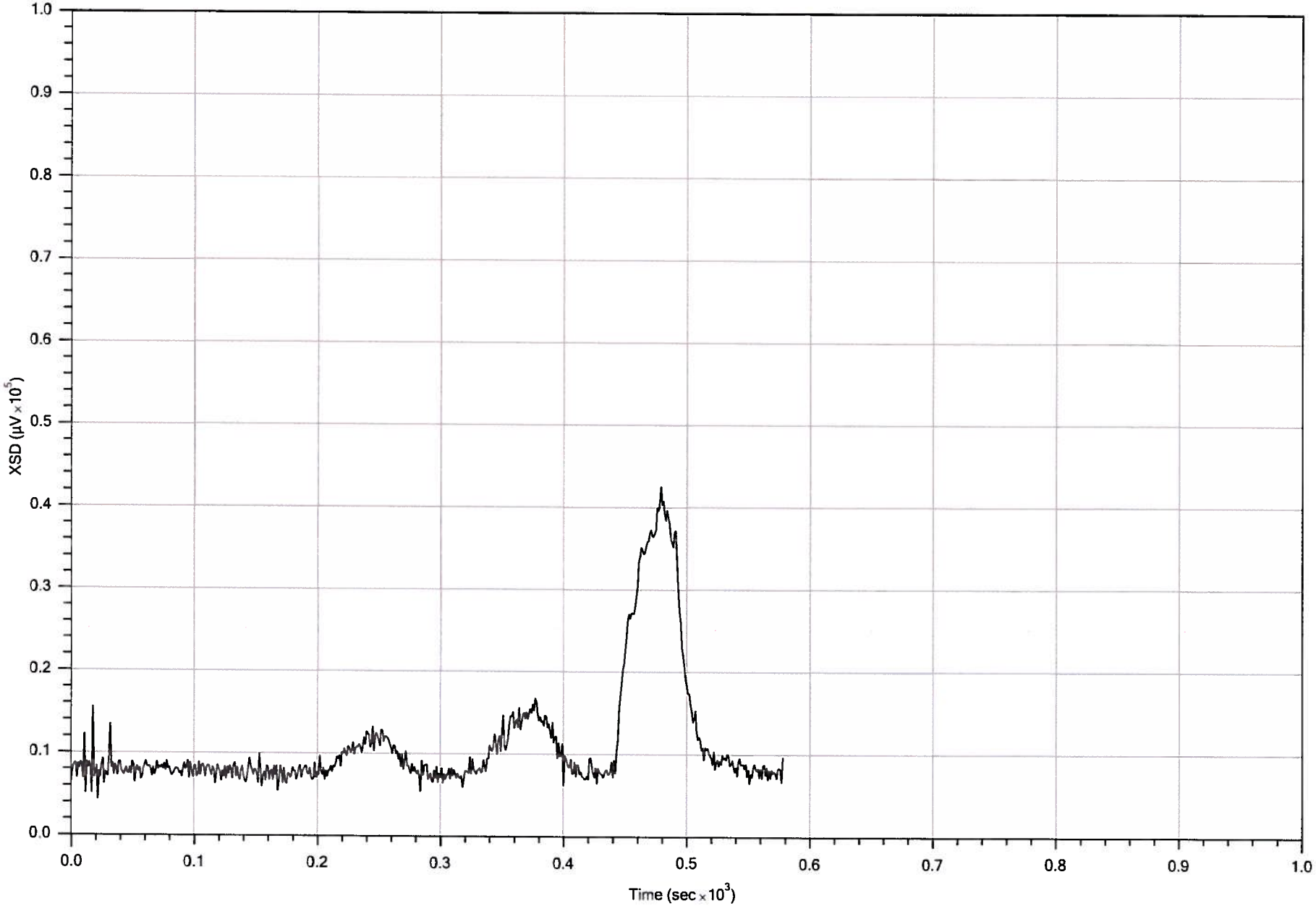
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-70.POST.TIM	Date: 11/7/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 28001 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-70.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Wed Nov 7 2012 17:40:04

RESPONSE TEST ATTENUATION CHANGES

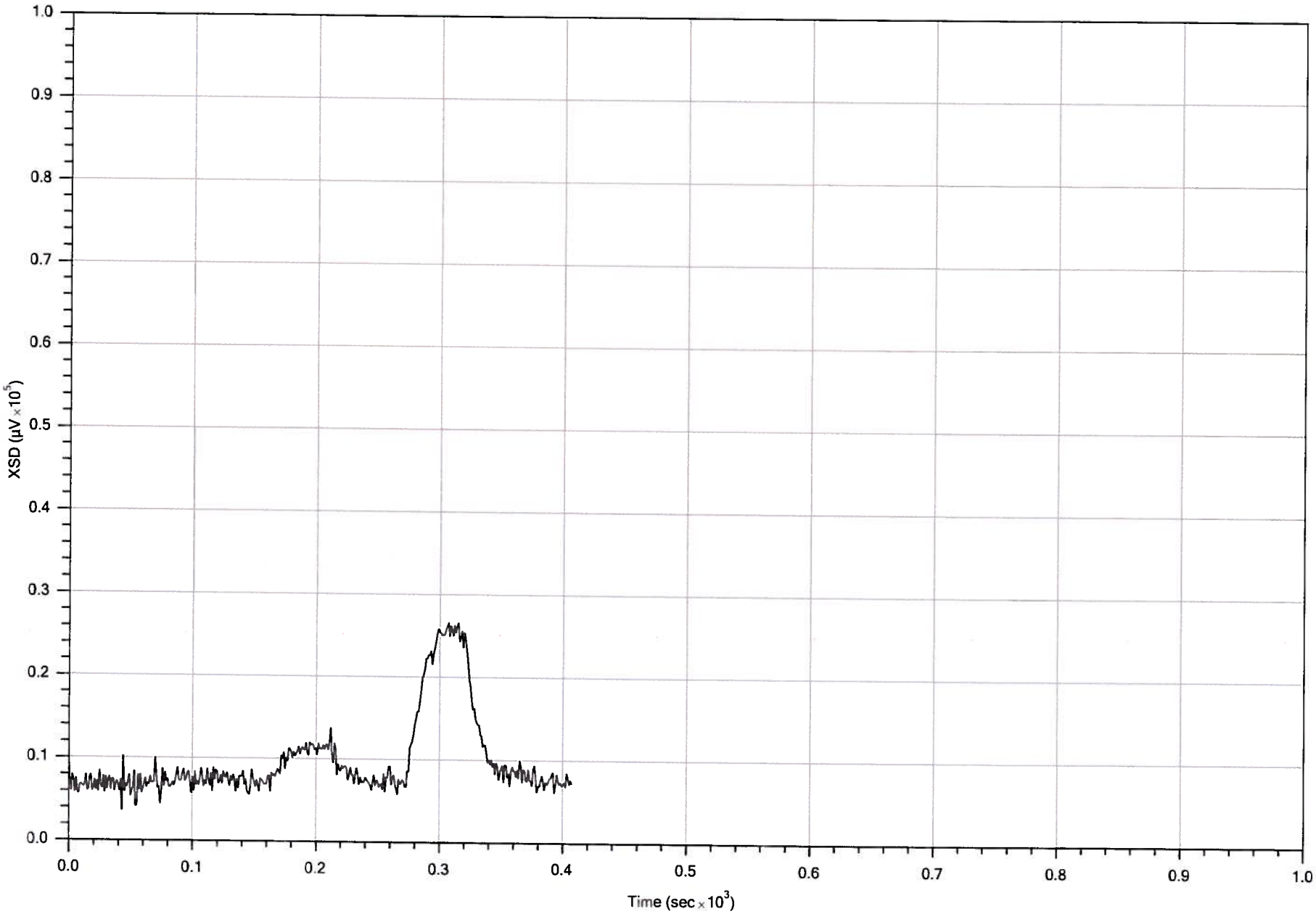
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



MATRIX ENVIRONMENTAL LLC

PRE-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-71.PRE.TIM	Date: 11/8/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 0, 0.5, 1, 5 ppm
		Compound: TCE	Peak Response: 42573 µV



POST-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-71.POST.TIM	Date: 11/8/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 26627 µV

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-71.pre.tim
COMPOUND: TCE
CONCENTRATION: 0, 0.5, 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Nov 8 2012 07:44:28

RESPONSE TEST ATTENUATION CHANGES

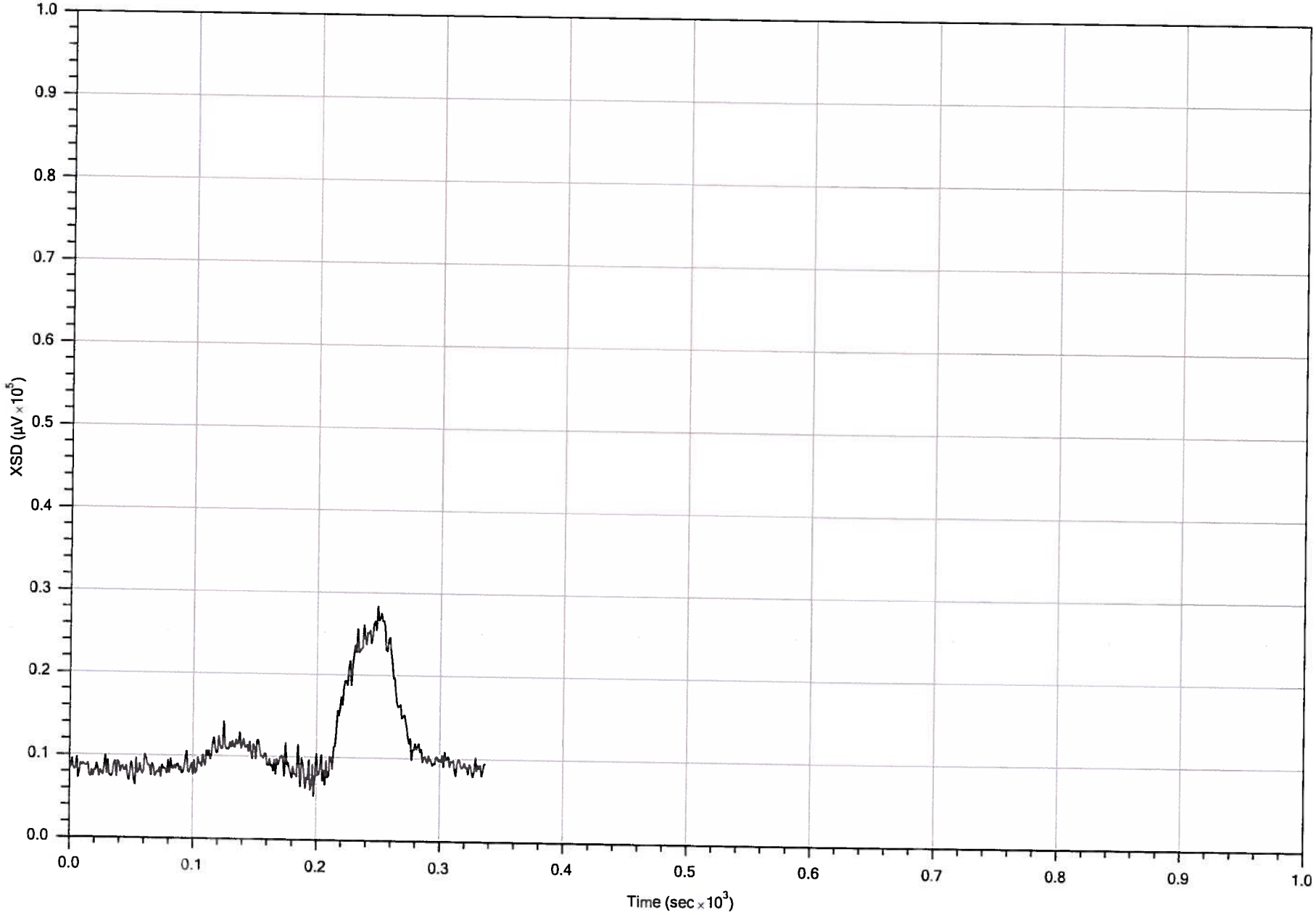
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-71.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Nov 8 2012 08:39:09

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

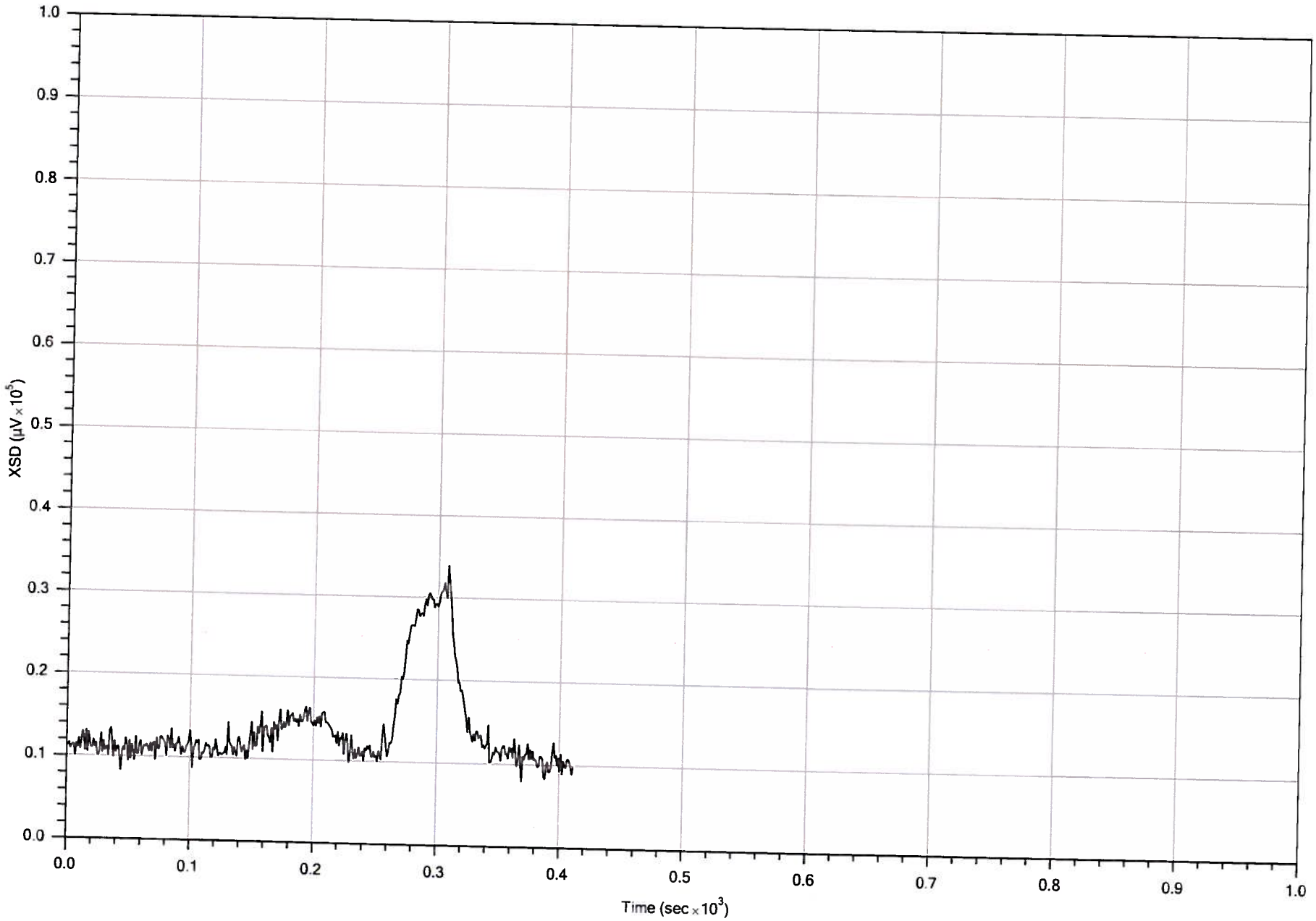
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-72.POST.TIM	Date: 11/8/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 28459 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-72.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Nov 8 2012 09:40:23

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



MATRIX ENVIRONMENTAL LLC

POST-LOG RESPONSE

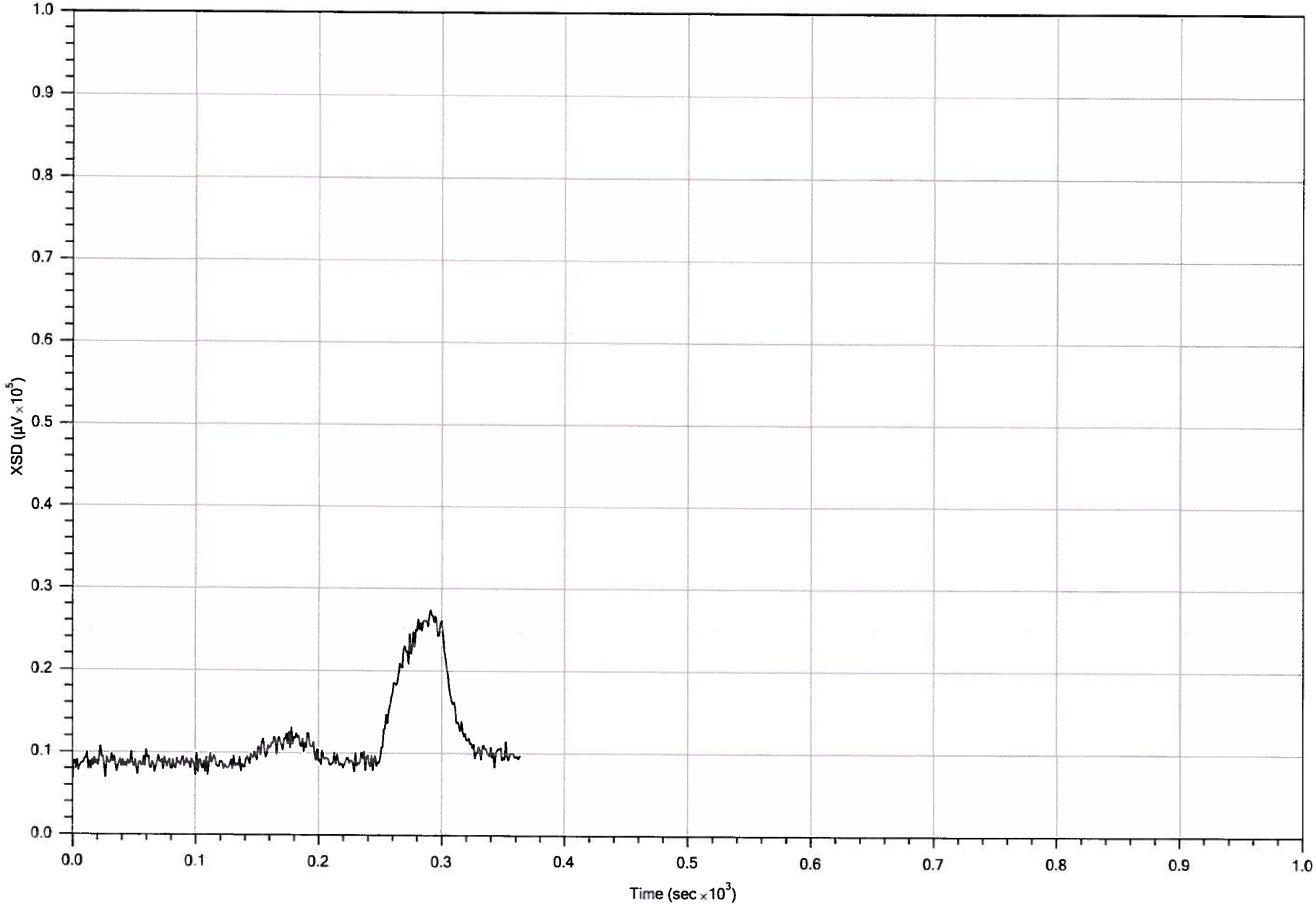
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-73.POST.TIM	Date: 11/8/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 33952 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-73.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Nov 8 2012 10:37:17

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

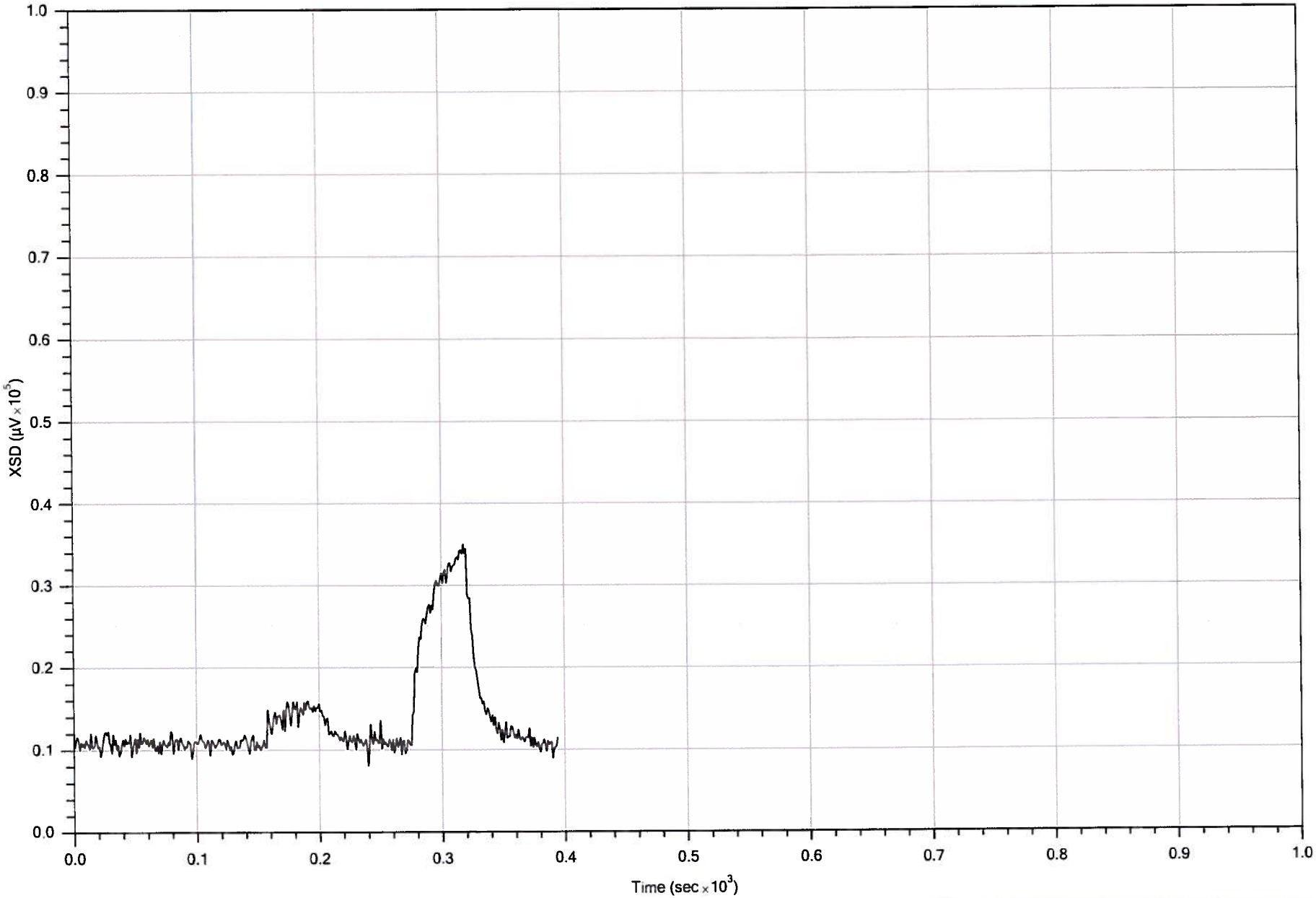
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-74.POST.TIM	Date: 11/8/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 27390 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-74.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Nov 8 2012 11:37:28

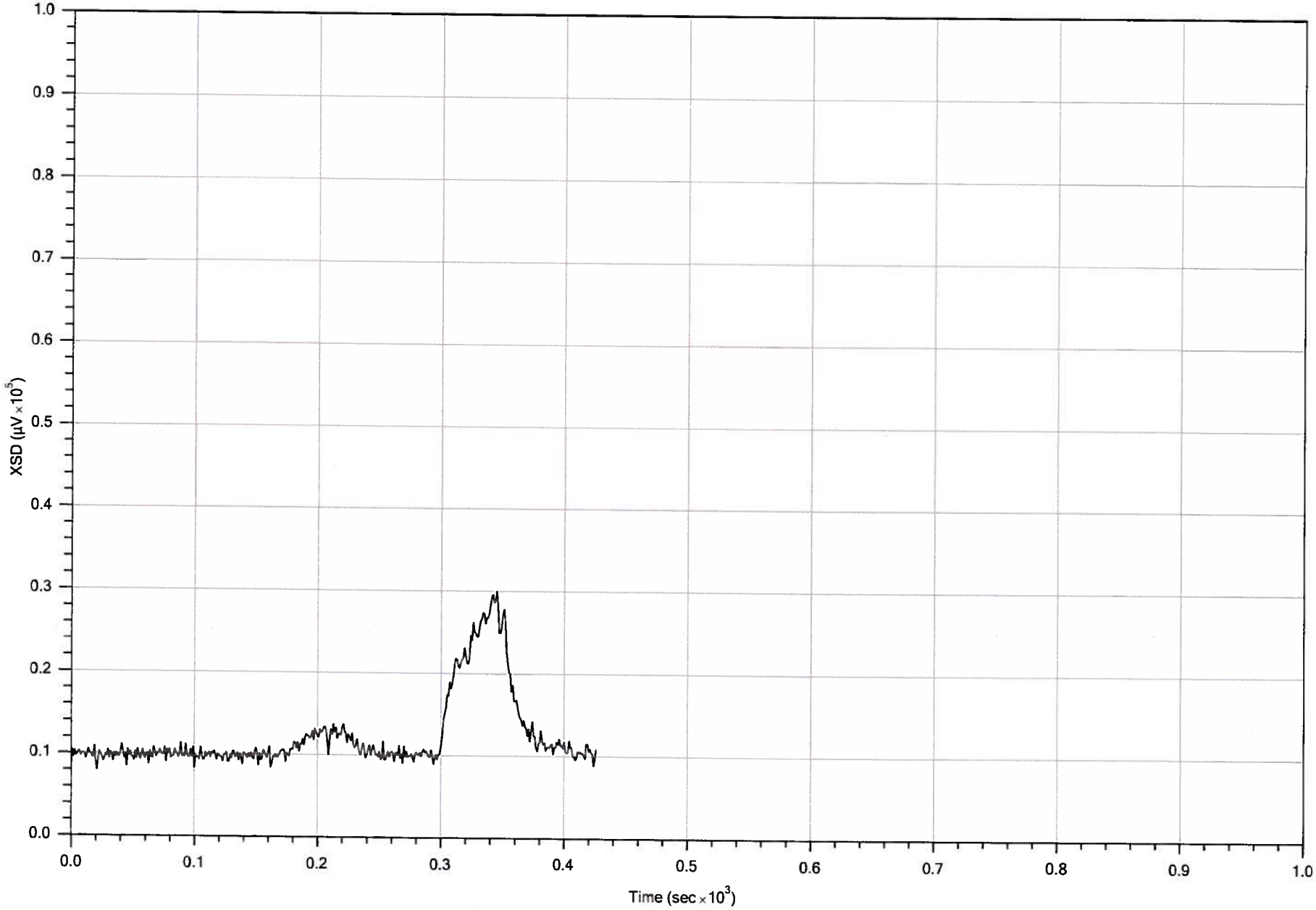
RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



PRE-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-75.PRE.TIM	Date: 11/8/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 35020 µV



POST-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-75.POST.TIM	Date: 11/8/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 29984 µV

MIP PRE-LOG RESPONSE TEST

FILENAME: MIP-75.pre.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Nov 8 2012 13:42:48

RESPONSE TEST ATTENUATION CHANGES

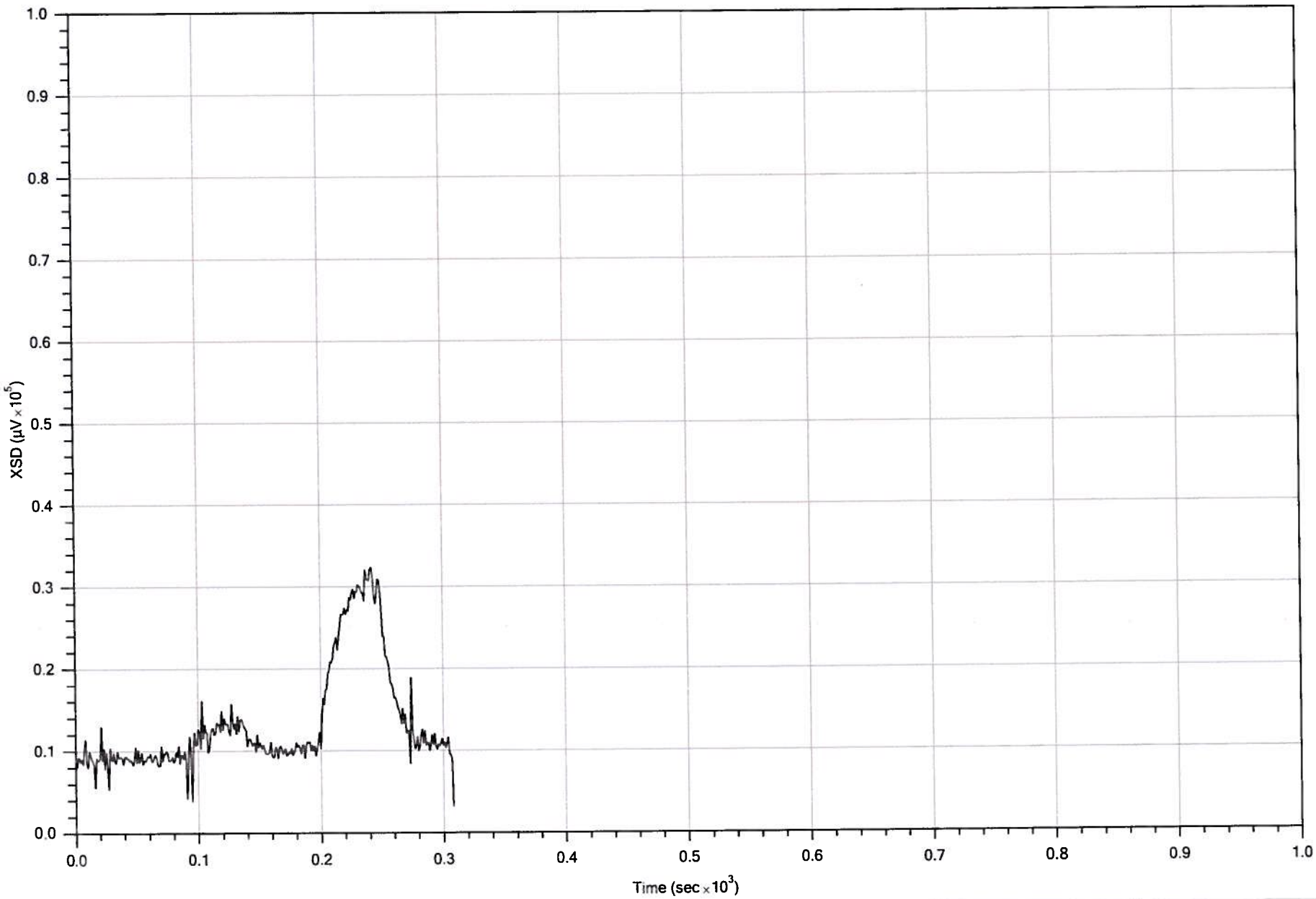
TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-75.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Nov 8 2012 14:41:12

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

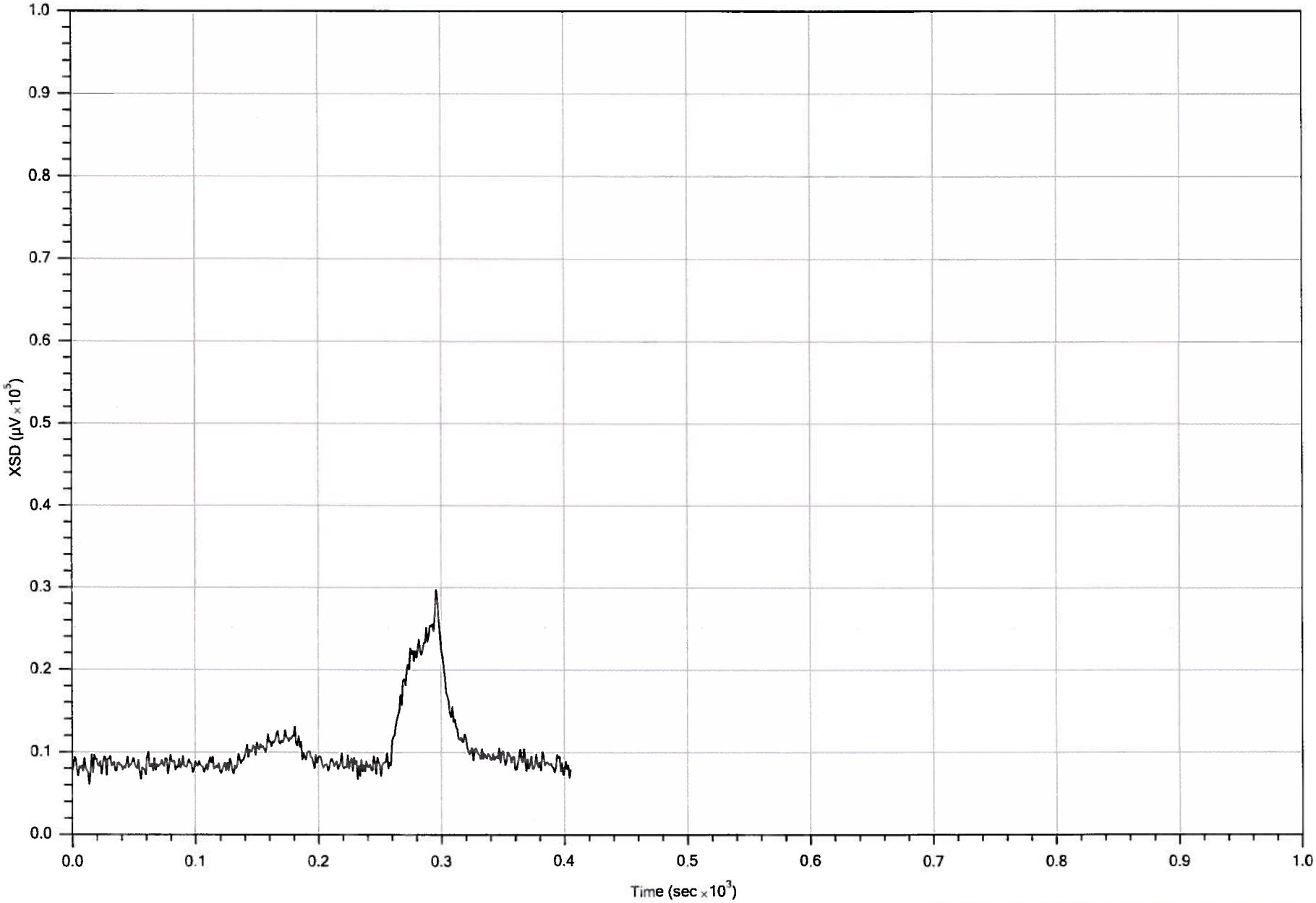
Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-76.POST.TIM	Date: 11/8/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 32350 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-76.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Nov 8 2012 15:41:57

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1



POST-LOG RESPONSE

Company: Matrix Environmental	Operator: Mike Jenson	File: MIP-77.POST.TIM	Date: 11/8/2012
Project ID: 131-MNDS-12MIP	Client: Golder	Detector: XSD	Concentration: 1, 5 ppm
		Compound: TCE	Peak Response: 29832 µV

MIP POST-LOG RESPONSE TEST

FILENAME: MIP-77.post.tim
COMPOUND: TCE
CONCENTRATION: 1, 5 ppm
FLOW: 40 mL/min
RESPONSE TEST START TIME: Thu Nov 8 2012 16:36:56

RESPONSE TEST ATTENUATION CHANGES

TIME	DET1	DET2	DET3	DET4
0	4	4	10	1

APPENDIX C

LIF PROBE LOGS AND ASSESSMENT RESULTS

Appendix C – LIF Probe Logs and Assessment Results

Files from the Supplemental Soil and Groundwater Assessment (Golder, 2013)

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Figure 20 LIF-06 Response Log

LIF Probe Logs

LIF Probe Logs (April and November 2012)

Table 2: Summary of LIF Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

Depth (ft)	LIF-01	LIF-02	LIF-03	LIF-04	LIF-05	LIF-06	LIF-07	LIF-08	LIF-09	LIF-10	LIF-11	LIF-12	LIF-13	LIF-14	LIF-15	LIF-16	LIF-17	LIF-18	LIF-19	LIF-20	LIF-21	LIF-22	LIF-23	LIF-24	Depth (ft)
	April 2012																								
1	1.1	9.0	10.7	4.2	2.7	2.4	3.0	13.9	13.9	4.2	4.6	58.8	6.8	2.0	7.6	25.9	3.3	1.9	2.2	3.0	6.2	4.2	2.4	21.9	1
2	1.1	2.5	11.8	1.3	1.2	1.2	0.9	1.8	2.2	1.1	11.5	87.2	3.0	1.2	4.4	56.0	2.2	1.0	0.9	2.4	3.5	1.3	1.1	16.4	2
3	3.1	1.2	14.0	0.9	0.9	1.1	0.7	0.8	0.8	0.8	10.4	42.2	1.6	0.9	2.4	30.7	0.8	0.9	0.9	1.5	2.1	1.9	1.3	15.6	3
4	115.2	0.9	12.3	0.9	0.8	1.1	0.8	0.7	1.1	3.3	2.1	32.7	0.8	1.1	2.3	20.9	0.7	0.8	1.3	0.7	1.8	1.6	1.4	12.3	4
5	119.4	0.8	12.7	1.4	0.9	1.1	0.7	4.9	2.1	6.2	5.5	33.4	1.6	1.6	2.1	20.3	3.3	6.1	0.9	0.9	1.6	1.4	1.0	8.9	5
6	94.6	0.8	12.8	3.8	3.7	1.5	2.0	118.6	56.8	12.1	52.4	35.2	5.7	1.8	35.2	21.0	16.7	0.7	0.8	0.8	1.5	1.5	0.9	10.3	6
7	98.6	0.8	10.2	6.9	58.4	21.8	2.8	193.4	58.6	11.8	132.5	57.5	5.4	3.0	67.4	20.5	12.8	0.9	0.8	2.3		3.6	8.3	8.9	7
8	101.2	0.7	13.6	10.9	49.5	18.4	8.4	266.5	63.1	8.4	62.2	106.0	93.1	2.4	30.5	22.2	4.7	0.8	0.8	17.5		4.4	12.2	9.7	8
9	68.6	0.7	13.0	11.2	21.1	15.0	7.9	262.6	64.4	5.5	17.3	53.9	133.6	0.8	8.5	21.5	15.5	0.8	0.8	2.0		3.8	10.1	6.5	9
10	33.3	0.8	85.3	10.8	14.7	12.4	6.5	89.8	0.7	0.9	1.3	60.3	83.0	0.6	0.8	21.3	31.6	0.8	0.8	0.8		0.9	7.7	0.8	10
11	0.9	0.7	89.7	4.0	1.0	84.1	2.2	1.0	0.7	0.6		2.8	17.7	0.4	0.6	1.2	7.2	0.7	0.6	0.7		0.7	17.4	0.7	11
12	1.1	0.7	21.6	2.5	0.8	45.3	0.8	0.7				1.6	0.8		0.5		0.8					0.6	12.8	0.8	12
13	1.0	0.8	21.1	1.0	1.0	8.0						0.7	0.7		0.6		1.0						1.3	0.8	13
14	1.0	0.8	0.8	1.7	1.0	5.0						0.6					0.8						1.4		14
15	1.0	0.9	0.9	2.6	1.0	3.1																	0.8		15
16	0.9	0.9	0.9	2.6	1.0	2.6																			16
17	0.9	1.0	0.9	1.4	1.0	3.4																			17
18	1.0	0.9	0.8	1.1		3.3																			18
19	0.9	0.9	0.8	1.1		2.0																			19
20		0.9				0.8																			20
21		0.9																							21
22		0.9																							22
23		0.9																							23
24																									24
25																									25
26																									26
27																									27
28																									28
29																									29

Notes:
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:

Min	Mid	Max
April 2012: LIF-01 to LIF-24		
0.6	2.1	100
Nov 2012: LIF-25 to LIF-84		
0.2	2.1	100

Table 2: Summary of LIF Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

Depth (ft)	LIF-25	LIF-26	LIF-27	LIF-28	LIF-29	LIF-30	LIF-31	LIF-32	LIF-33	LIF-34	LIF-35	LIF-36	LIF-37	LIF-38	LIF-39	LIF-40	LIF-41	LIF-42	LIF-43	LIF-44	LIF-45	LIF-46	LIF-47	LIF-48	LIF-49	LIF-50	LIF-51	LIF-52	LIF-53	Depth (ft)
	November 2012																													
1	4.3	2.6	6.7	16.6	26.5	20.9	18.3	5.4	8.8	7.7	10.7	4.9	3.3	2.5	1.9	0.8	2.0	0.9	1.2	1.3	7.1	0.9	13.7	4.2	1.9	0.6	1.3	0.7	0.7	1
2	0.9	0.5	0.7	27.8	15.5	4.7	14.6	0.7	0.7	2.5	11.8	0.7	1.0	2.1	1.6	1.6	11.0	1.6	1.0	0.9	1.2	2.3	1.5	0.5	0.4	0.5	0.9	0.6	0.5	2
3	0.7	0.5	0.7	0.5	2.9	4.0	7.1	0.7	0.7	1.8	5.1	0.7	0.7	3.4	2.7	4.2	17.2	1.2	13.1	6.8	3.6	5.4	1.1	0.5	0.5	0.5	0.5	0.6	0.5	3
4	0.4	0.5	0.7	0.4	5.1	4.0	8.2	1.2	0.9	1.6	9.6	0.6	0.7	14.3	0.7	5.6	2.5	1.0	15.9	7.8	4.2	5.9	1.1	0.5	0.4	1.4	0.4	0.5	0.4	4
5	0.7	0.7	1.0	0.8	3.5	4.1	7.2	2.4	0.9	1.1	9.4	0.7	0.8	57.8	12.1	69.7	1.1	1.0	21.9	6.5	25.1	18.6	1.4	0.7	44.3	6.4	2.7	0.5	0.7	5
6	0.6	0.7	0.8	0.8	4.5	4.3	8.5	2.2	0.8	0.7	6.9	0.6	0.8	108.6	8.9	90.6	3.9	0.9	17.0	5.8	13.5	25.4	1.1	18.5	113.1	7.1	3.5	2.3	39.8	6
7	1.8	0.6	0.7	0.5	4.3	3.1	7.1	6.8	0.8	0.7	25.4	0.6	1.2	229.6	11.3	55.4	10.3	0.5	15.3	4.7	7.8	21.6	2.6	10.8	86.6	2.8	3.3	2.1	16.7	7
8	2.3	0.5	0.6	0.4	2.5	0.4	6.8	5.1	0.7	0.7	25.0	0.5	0.7	307.1	0.9	61.8	1.0	0.5	14.7	1.8	12.9	43.1	4.9	37.9	67.0	1.3	1.8	1.8	6.5	8
9	1.4	0.4	0.6	0.4	1.1	0.7	6.5	3.7	0.7	0.6	25.2	0.5	0.7	274.5	1.0	60.0	0.5	0.4	3.4	1.8	3.4	23.0	2.5	1.0	53.6	1.9	0.8	0.9	6.5	9
10	1.1	0.5	0.7	0.6	1.0	0.4	6.9	1.4	0.6	0.6	22.7	0.4	0.7	288.3	0.4	0.9	0.7	0.5	3.1	6.5	1.4	0.5	1.2	0.4	2.2	3.1	1.4	0.7	0.9	10
11	0.5	0.4	0.4	1.4	0.8	0.4	3.3	1.2	0.4	0.4	20.6	0.5	0.4	234.5	0.4	0.6	0.6	0.5	0.5	0.4	0.6	0.5	1.0	0.4	1.2	0.5	0.6	0.6	0.6	11
12	0.4	0.4	0.4	1.1	0.7	1.1	5.0	0.5	0.5	0.4	15.9	0.4	0.4	39.6	0.4	0.4	0.7	0.5	0.4	0.4	0.5	0.4	1.0	0.4	0.3	0.5	0.5	0.6	0.6	12
13	0.4	0.3	0.3	0.6	0.5	0.3	0.5	0.4	0.4	0.4	15.7	0.4	0.4	0.7	0.4	0.3	0.7	0.4	0.5	0.4	0.4	0.4	1.0	0.3	0.3	0.5	0.4	0.5	0.4	13
14											11.5			0.3																14
15											0.5																			15
16											0.5																			16
17											0.4																			17
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Notes:
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:

Min	Mid	Max
April 2012: LIF-01 to LIF-24		
0.6	2.1	100
Nov 2012: LIF-25 to LIF-84		
0.2	2.1	100

Table 2: Summary of LIF Surveys
April and November 2012
Former Electrolux Facility
Jefferson, Iowa

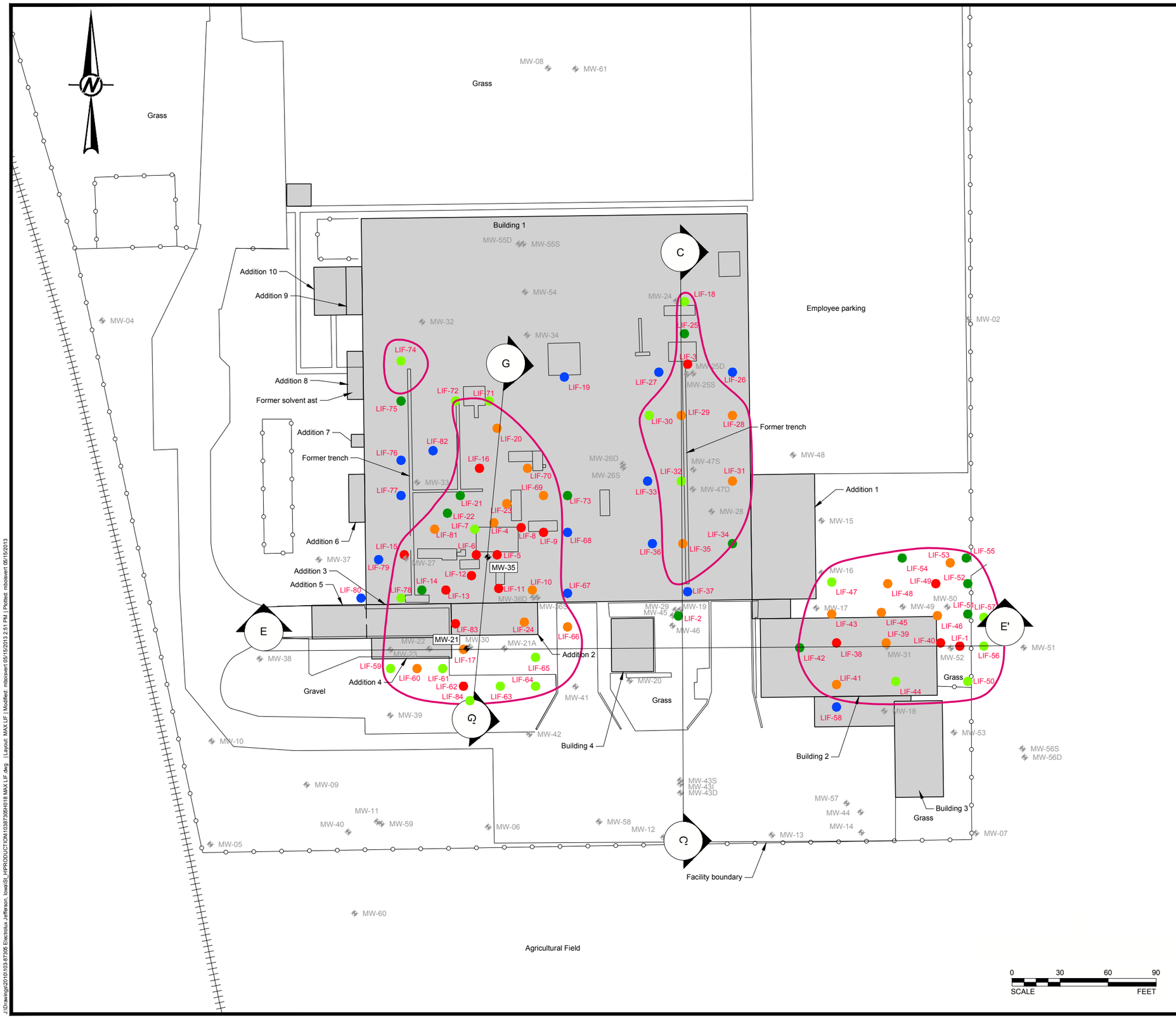
Depth (ft)	LIF-54	LIF-55	LIF-56	LIF-57	LIF-58	LIF-59	LIF-60	LIF-61	LIF-62	LIF-63	LIF-64	LIF-65	LIF-66	LIF-67	LIF-68	LIF-69	LIF-70	LIF-71	LIF-72	LIF-73	LIF-74	LIF-75	LIF-76	LIF-77	LIF-78	LIF-79	LIF-80	LIF-81	LIF-82	LIF-83	LIF-84	Depth (ft)
	November 2012																															
1	0.7	1.4	0.7	2.9	8.7	13.2	10.8	8.2	8.2	7.4	4.0	0.9	5.9	6.4	4.9	5.4	16.4	10.9	6.5	2.8	7.9	2.6	8.8	4.0	2.6	2.1	3.0	3.0	3.9	5.8	4.9	1
2	0.4	0.5	0.5	0.5	0.7	2.2	12.7	8.9	4.9	6.2	5.4	0.6	1.9	0.5	1.0	0.9	25.9	1.8	5.0	1.8	6.7	2.6	0.6	0.5	0.5	1.1	0.4	0.4	1.0	4.1	5.0	2
3	0.4	0.5	0.5	0.4	0.8	2.0	1.5	1.6	1.2	0.8	1.4	0.7	3.6	0.9	0.4	0.9	5.2	8.5	0.7	1.4	3.0	1.5	0.6	0.4	0.7	0.4	0.4	0.4	1.4	1.7	9.9	3
4	1.9	0.4	5.2	1.1	0.8	0.6	0.6	1.5	2.8	0.5	1.7	4.6	3.0	0.6	0.4	0.9	0.6	4.9	0.6	1.0	1.4	1.1	0.5	0.5	0.5	0.4	0.3	0.4	0.5	2.1	1.1	4
5	0.6	0.4	9.1	5.1	0.6	0.4	1.9	4.5	7.1	0.8	1.8	8.0	12.8	0.5	0.4	1.0	0.8	1.7	0.7	0.9	7.8	0.5	0.4	0.5	0.8	0.3	0.3	0.4	0.5	2.0	1.0	5
6	0.6	1.1	8.6	5.4	0.4	0.8	3.6	5.7	55.0	0.6	1.2	7.1	18.0	0.5	0.4	1.8	0.4	0.5	0.8	0.9	3.3	0.5	0.7	0.4	1.6	0.3	0.3	0.4	0.6	3.2	0.6	6
7	0.5	3.6	3.5	3.9	0.4	2.1	6.7	1.9	50.9	0.7	1.1	4.0	0.6	0.5	0.4	27.3	6.4	0.6	0.8	0.9	1.7	0.4	0.5	0.5	2.3	0.4	0.4	17.3	0.4	15.3	0.6	7
8	0.4	1.6	0.5	3.2	0.4	1.8	10.5	2.1	39.0	1.1	0.4	1.0	0.4	0.7	0.9	23.1	5.9	0.4	0.4	0.9	1.0	0.5	0.5	0.5	6.4	0.3	0.4	32.8	0.4	63.3	1.2	8
9	0.5	0.4	0.5	0.8	0.4	0.8	13.4	1.9	31.9	1.3	0.4	0.5	0.5	0.6	0.7	5.3	1.9	0.4	0.4	1.4	0.9	0.4	0.6	0.4	1.4	0.3	0.3	6.2	0.6	65.0	0.8	9
10	0.4	0.5	0.6	0.8	0.4	0.5	4.3	1.1	31.0	1.3	0.4	0.4	0.6	0.8	0.4	0.7	0.6	0.5	0.3	0.4	0.4	0.4	0.6	0.5	0.8	0.5	0.3	1.3	0.4	29.7	0.4	10
11	0.4	0.5	0.4	0.5	0.4	0.5	0.8	0.6	27.8	1.1	0.4	0.4	0.6	1.0	0.5	0.6	0.4	0.4	0.3	0.5	0.4	0.4	0.4	0.6	0.5	0.3	0.4	3.1	0.4	3.2	0.6	11
12	0.4	0.6	0.5	0.5	0.4	0.5	0.7	0.6	18.5	1.2	0.4	0.5	0.7	0.5	0.5	0.6	0.6	0.5	0.3	0.7	0.4	0.4	0.6	0.5	0.6	0.3	0.4	0.3	0.5	3.3	0.6	12
13	0.3	0.4	0.4	0.3	0.4	0.5	0.7	0.6	18.5	1.0	0.4	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.3	0.7	0.4	0.4	0.6	0.5	0.6	0.2	0.4	0.7	0.5	2.9	0.6	13
14									53.5	0.7				0.6																0.6	0.7	14
15									40.4	0.7																				0.5	0.6	15
16									30.2	0.7																				0.5	0.6	16
17									25.2	0.6																				0.5	0.6	17
18									19.8	0.5																				0.5	0.6	18
19									38.7	0.5																				0.5	0.5	19
20									30.5	0.5																				0.7	0.5	20
21									15.2	0.4																				0.6		21
22									15.9																							22
23									16.6																							23
24									24.5																							24
25									9.2																							25
26									10.6																							26
27									3.7																							27
28									0.6																							28
29									0.6																							29

Notes:
LIF (Laser-induced fluorescence) data is provided as a comparison to a reference emitter (RE) as %RE.
Color flood criteria are different for April and Nov data due to differences in the detectors background values at the time of survey.

Color flood criteria:

Min	Mid	Max
April 2012: LIF-01 to LIF-24		
0.6	2.1	100
Nov 2012: LIF-25 to LIF-84		
0.2	2.1	100

Prepared by: ATK
Checked by: MRH
Reviewed by: APTM



LEGEND

- Fence
- Edge of gravel
- LIF-18 — Laser-induced fluorescence location
- MW-01 — Monitoring well location
- MW-21 — Observed LNAPL in this well
- Building
- Estimated extent of LNAPL
- Former Buildings (slab remains)
- A — Cross section location and direction

LIF RESPONSE

- 100 RE
- 50 RE
- 10 RE
- 5 RE
- 1 RE
- 0.01 RE

NOTES

1.) BM #1 elev. = 1052.49 (NAVD 88) center top non-operating bolt on fire hydrant Northwest of main building.

2.) JEO consulting group did not find useful NGS monuments in the Jefferson area. A USGS 24,000k Topographic map elevation (1054.00) at the intersection of Mulberry Street and East Central Street as the assumed NAVD 88 elevation. This elevation agreed with the elevation generated from Geoid-09.

3.) The coordinates for this site are approximate Iowa State Plane North 1401 with a ground scale factor of 1.0000463418.

4.) LNAPL = Light, non-aqueous phase liquid.

5.) RE = Reference emitter.

REFERENCES

Basemap taken from JEO Consulting Group, Inc. drawing titled, "Electrolux Home Products base map", dated 11/21/10, revised May 2012.

FIGURE NARRATIVE

This figure illustrates the maximum LIF response recorded at each LIF probe location during the LIF surveys performed in April and November 2012. The color flood of the discs is indicative of responses observed at each LIF location. The diameter of the borings is exaggerated.

This figure also includes the interpreted extent of light, non-aqueous phase liquid present on site based on LIF and MIP results and TEH groundwater concentrations. In same cases, the maximum LIF response may not be indicative of the presence of LNAPL. See text for additional discussion.

Conditions between LIF borings and wells may vary. Other interpretations are possible.

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE

MAXIMUM LIF RESPONSE AND ESTIMATED LNAPL EXTENT

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H018 MAX LIF
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	16
CHECK	JSP	2013-05-15		
REVIEW	APTM	2013-05-15		

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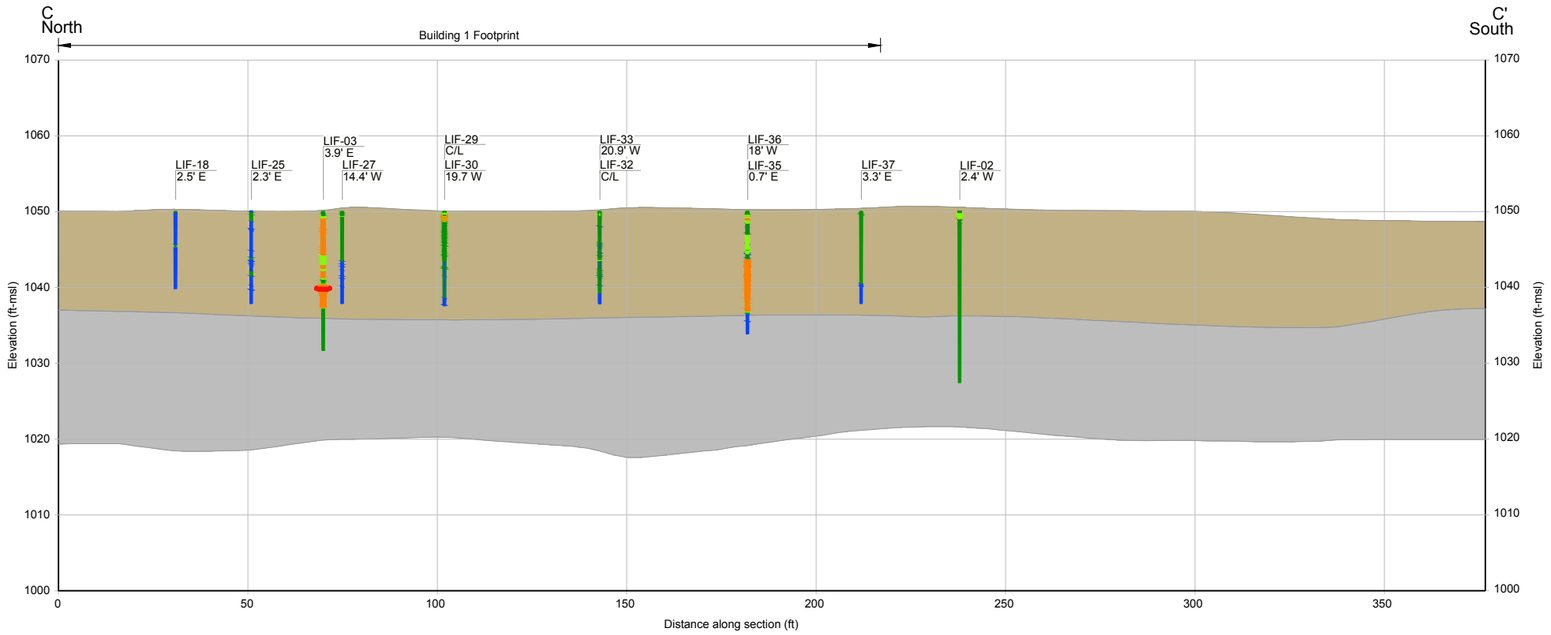
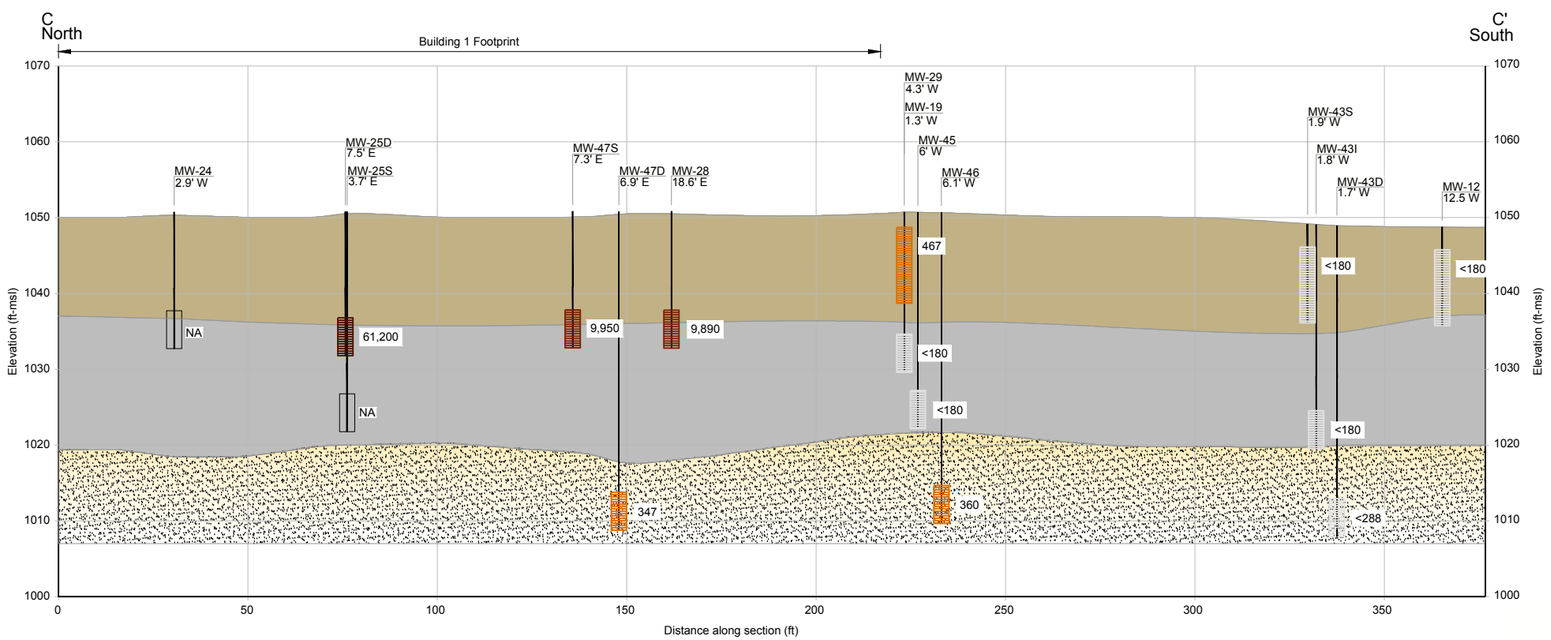


C LIF RESPONSE



C TEH CONCENTRATION (ug/l)

LIF RECOVERY

- 100% RE
- 50% RE
- 10% RE
- 5% RE
- 1 % RE
- 0.01 % RE

TEH CONCENTRATION

- 100,000 ug/l
- 10,000 ug/l
- 1,000 ug/l
- 100 ug/l
- 10 ug/l
- 1 ug/l
- 0.1 ug/l

0 20 40 60
SCALE 2X EXAGGERATION FEET

LEGEND

MW-12 12.5 W — Well I.D. Offset direction and distance C/L = centerline

LIF-03 3.9' W — LIF I.D. Offset direction and distance C/L = centerline

Well screen interval

LIF response (see scale)

GEOLOGIC LAYER

- Oxidized brown till
- Unoxidized gray till
- Yellow brown till
- Indicates more coarse-grained soil, sand and gravel

NOTES

1.) Golder developed the geologic cross sections using Environmental Visualization System (EVS) software developed by CTech Corporation (Version 9.84). Where necessary, Golder adjusted EVS output using professional judgment.

2.) Geologic contacts illustrated between and below borings are inferred and should not be interpreted as exact indicators of geologic conditions at, between or below borings.

3.) The projection of well screens onto geologic units may not reflect actual geologic conditions at the well screen interval due to variations in the elevation of geologic layers with distance from the cross-section centerline.

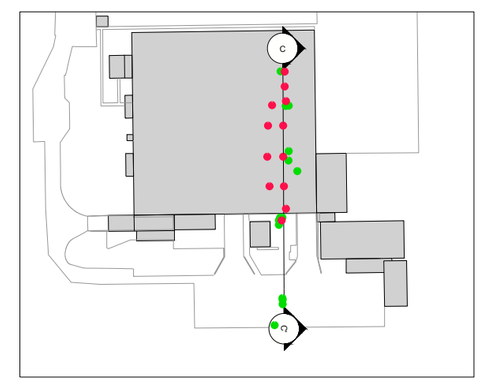
ABBREVIATIONS

ft-msl = Feet Mean Sea Level	TEH = Total Extractable Hydrocarbons
LIF = Laser-Induced Fluorescence	% RE = Percent Reference Emitter
ug/l = Micrograms Per Liter	NA = Not Analyzed

FIGURE NARRATIVE

This figure shows the LIF responses and TEH groundwater concentrations for the north-south cross-section (C - C') on the eastern side of Building 1. The cross-section includes LIF data obtained during April and November 2012 and groundwater data collected in December 2012 and March 2013. The color flood and diameter of the discs shown on the cross-section indicate the reference emitter (RE) response at each LIF location. The diameter of the borings is exaggerated proportionally to the LIF response.

This figure also illustrates the interpreted geologic conditions. Contacts shown in the cross-section are Golder's interpretation of the lithology, obtained from borings installed during the assessment activities in April and November 2012 and February 2013. Conditions between borings may vary. Other interpretations are possible.



● = LIF ● = Monitoring well

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
CROSS SECTION C-C'
LIF AND TEH RESULTS
AND GEOLOGIC INTERPRETATION

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H005 C
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	17
CHECK	JSP	2013-05-15		
REVIEW	APTM	2013-05-15		

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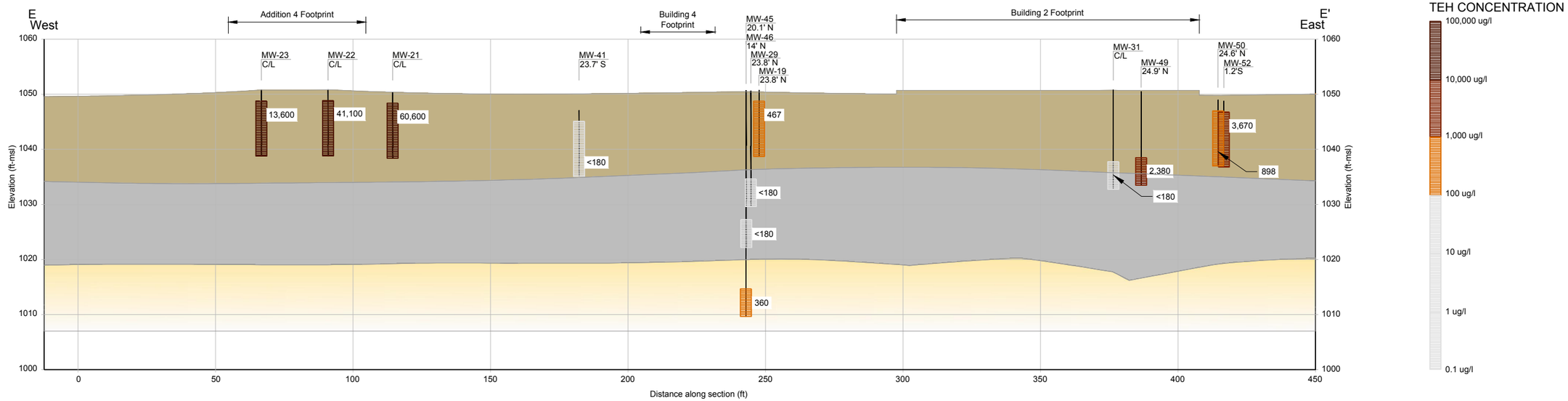
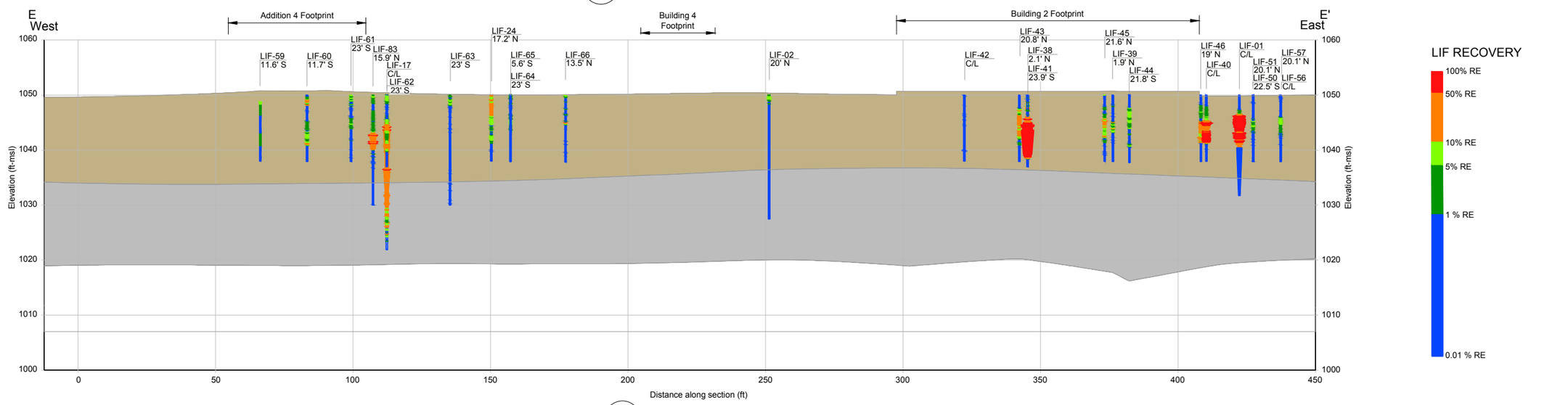


E TEH CONCENTRATION (ug/l)



E LIF RESPONSE

LEGEND

MIP-30 4' W — MIP I.D. Offset direction and distance C/L = centerline

MIP response (see scale)

MW-12 12.5 W — Well I.D. Offset direction and distance C/L = centerline

Well screen interval

GEOLOGIC LAYER

- Oxidized brown till
- Unoxidized gray till
- Yellow brown till

NOTES

1.) Golder developed the geologic cross sections using Environmental Visualization System (EVS) software developed by CTech Corporation (Version 9.84). Where necessary, Golder adjusted EVS output using professional judgment.

2.) Geologic contacts illustrated between and below borings are inferred and should not be interpreted as exact indicators of geologic conditions at, between or below borings.

3.) The projection of well screens onto geologic units may not reflect actual geologic conditions at the well screen interval due to variations in the elevation of geologic layers with distance from the cross-section centerline.

ABBREVIATIONS

ft-msl = Feet Mean Sea Level

LIF = Laser-Induced Fluorescence

%RE = Percent Reference Emitter

ug/l = Micrograms Per Liter

TEH = Total Extractable Hydrocarbons

FIGURE NARRATIVE

This figure shows the LIF responses and TEH groundwater concentrations for the east-west cross-section (E - E') for the area south of Building 1 and center of Building 2. The cross-section includes LIF data obtained during April and November 2012 and groundwater data collected in December 2012 and March 2013. The color flood and diameter of the discs shown on the cross-section indicate the percent reference emitter (RE) response at each LIF location. The diameter of the borings is exaggerated proportionally to the LIF response.

This figure also illustrates the interpreted geologic conditions. Contacts shown in the cross-section are Golder's interpretation of the lithology, obtained from borings installed during the assessment activities in April and November 2012 and February 2013. Conditions between borings may vary. Other interpretations are possible.

0 20 40 60
SCALE 2X EXAGGERATION FEET

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
CROSS SECTION E-E' LIF AND TEH RESULTS AND GEOLOGIC INTERPRETATION

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H013 E
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	18
CHECK	JSP	2013-05-15		
REVIEW	APTM	2013-05-15		

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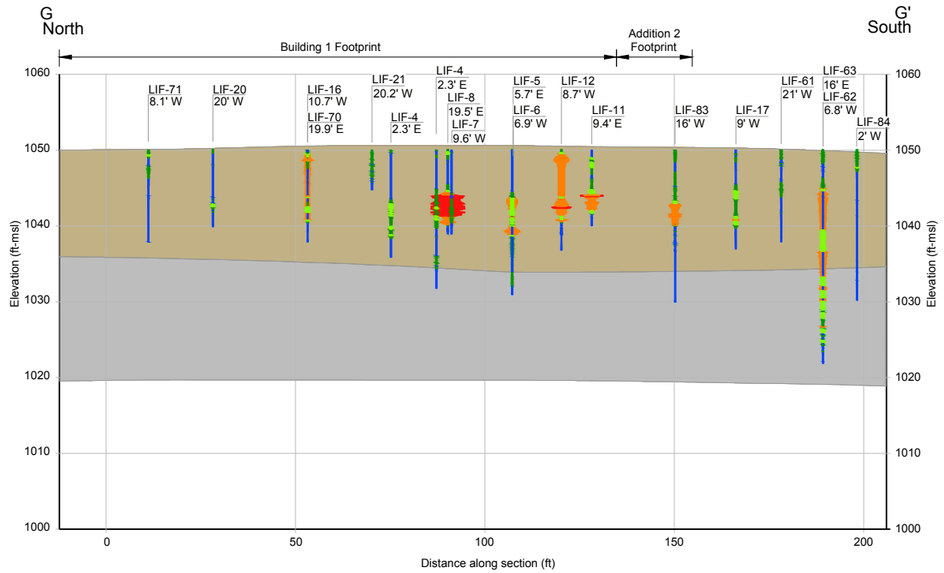
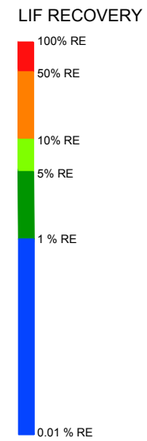
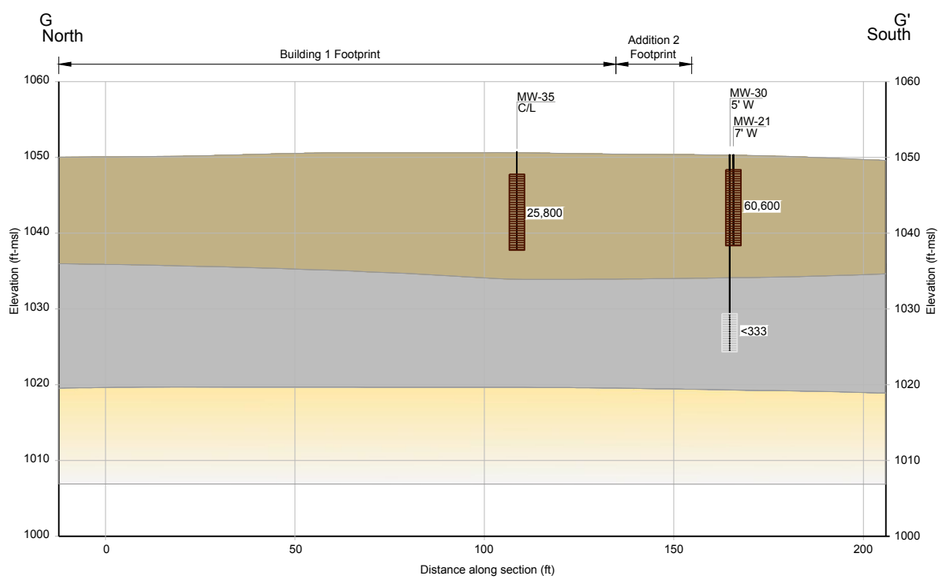
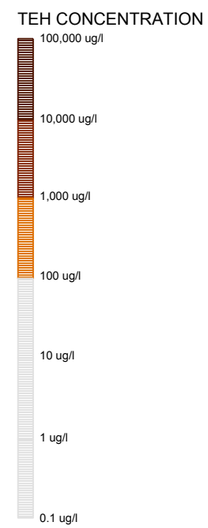


G LIF RESPONSE





G TEH CONCENTRATION (ug/l)



0 20 40 60
SCALE 2X EXAGGERATION FEET

LEGEND

MW-12 12.5 W — Well I.D. Offset direction and distance C/L = centerline

LIF-03 3.9' W — LIF I.D. Offset direction and distance C/L = centerline

Well screen interval

LIF response (see scale)

GEOLOGIC LAYER

- Oxidized brown till
- Unoxidized gray till
- Yellow brown till

NOTES

1.) Golder developed the geologic cross sections using Environmental Visualization System (EVS) software developed by CTech Corporation (Version 9.84). Where necessary, Golder adjusted EVS output using professional judgment.

2.) Geologic contacts illustrated between and below borings are inferred and should not be interpreted as exact indicators of geologic conditions at, between or below borings.

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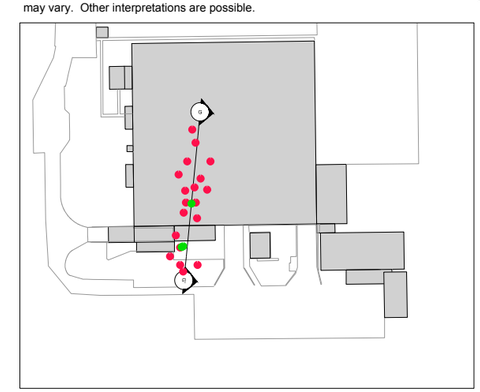
ABBREVIATIONS

ft-msl = Feet Mean Sea Level	TEH = Total Extractable Hydrocarbons
LIF = Laser-Induced Fluorescence	% RE = Percent Reference Emitter
ug/l = Micrograms Per Liter	NA = Not Analyzed

FIGURE NARRATIVE

This figure shows the LIF responses and TEH groundwater concentrations for the north-south cross-section (G - G') on the west/central side of Building 1. The cross-section includes LIF data obtained during April and November 2012 and groundwater data collected in April and December 2012. The color flood and diameter of the discs shown on the cross-section indicate the reference emitter (RE) response at each LIF location. The diameter of the borings is exaggerated proportionally to the LIF response.

This figure also illustrates the interpreted geologic conditions. Contacts shown in the cross-section are Golder's interpretation of the lithology, obtained from borings installed during the assessment activities in April and November 2012. Conditions between borings may vary. Other interpretations are possible.



● = LIF ● = Monitoring well

PROJECT
ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE
CROSS-SECTION G-G'
LIF AND TEH RESULTS
AND GEOLOGIC INTERPRETATION

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H021 G
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	19
CHECK	JSP	2013-05-15		
REVIEW	APTM	2013-05-15		

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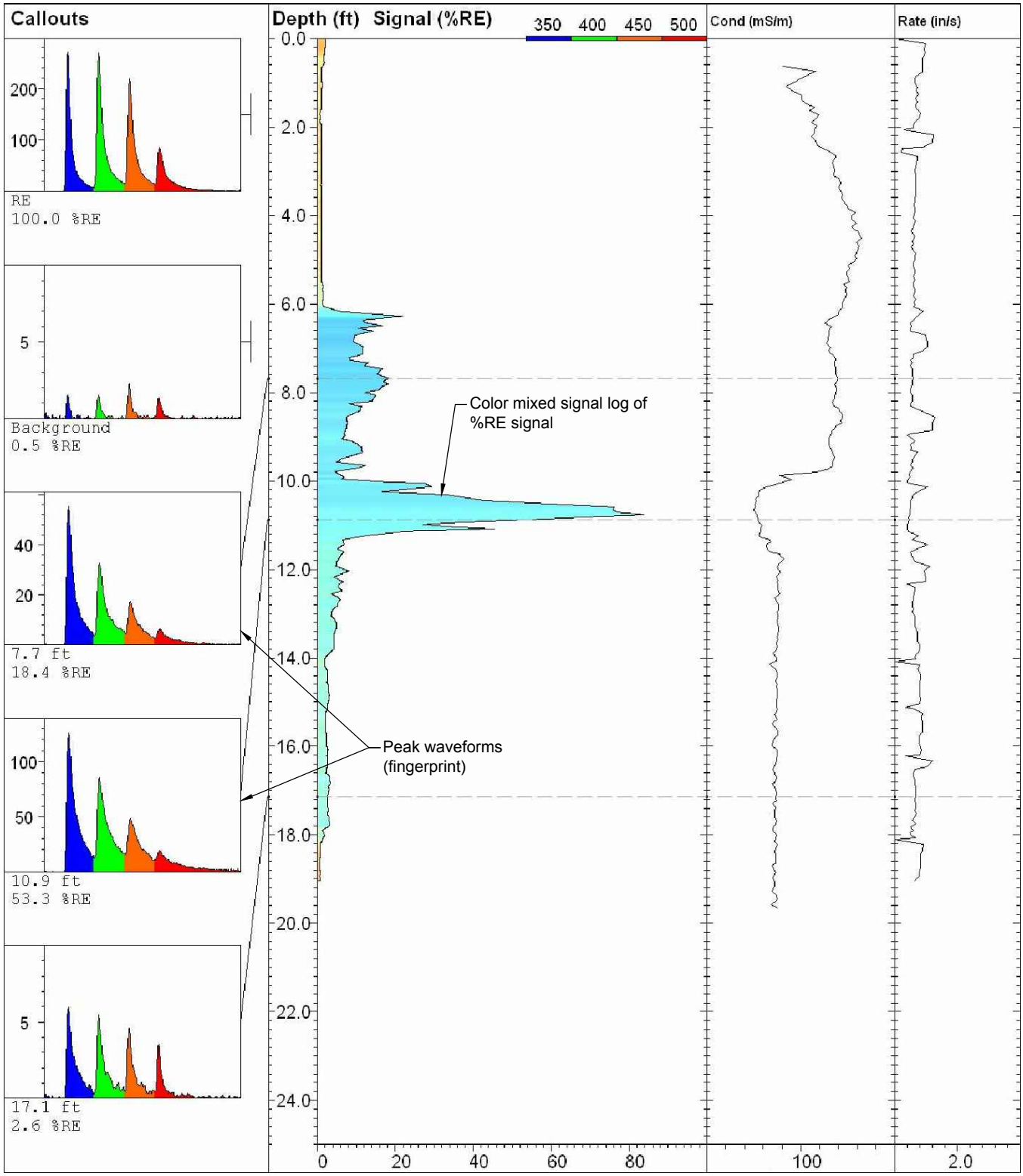

REFERENCES

LIF-06 Response log taken from Matrix Environment LLC. log titled, "LIF-06", dated 04/25/2012.

PROJECT

ELECTROLUX HOME PRODUCTS
JEFFERSON, IOWA

TITLE

LIF-06 RESPONSE LOG

Golder Associates

PROJECT No.		103-87305	FILE No.	10387305H022 LIF06
DESIGN	JSP	2013-05-15	SCALE	AS SHOWN
CADD	MPB	2013-05-15	FIGURE	20
CHECK	JSP	2013-05-15		
REVIEW	APTM	2013-05-15		

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Thursday, April 26, 2012

11253 91st Ave. N.
Maple Grove, MN 55369
763-424-4803
FAX: 763-424-9452

-Direct Sensing Report, UVOST-

Client:	**Golder Associates**
Project Name:	**Electrolux**
Location:	**Jefferson, IA**
Project Number:	**047-MNDS-12UV**

The analysis and opinions expressed in this report are based upon data obtained from UVOST logs generated (and samples collected for emulations if applicable) at the location specified, and from other information discussed in this report. Exceptions, if any, are discussed in the accompanying discussion if applicable. This report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted practices. Reported results shall not be reproduced, except in full, without written approval of the lab. The sample results relate only to the analytes of interest tested. No warranties, expressed or implied are intended or made.

I certify that the data contained in this final report has been generated and reviewed in accordance with approved methods and our Standard Operating Procedure. Release of this final report is authorized by Laboratory management, which is verified by the following signature.

Approval Signature Date 4/26/12

LIF SYSTEM DESCRIPTION & ANALYSIS

UVOST

Fluorescence is a property of some compounds where absorbed UV light stimulates the emission of photons (light) of a longer wavelength relative to the source emission. The release of the photons can be used to detect small amounts of substance (i.e. polycyclic aromatic hydrocarbons or PAHs) in a larger matrix (soil). This method of detection has been used in laboratories for decades. Now, with the availability of lasers and optical fibers, this technology can be applied down hole in the field.

The UVOST system sends light (via 308 nm laser) through a fiber optic cable strung within probe rods. The light, reflected by a parabolic mirror, then exits through a sapphire window in the side of the probe. As the probe is advanced, the soil is exposed to the UV laser light. If PAHs are present (compounds in POLs that fluoresce, i.e. LNAPL) longer wavelength light is emitted by the contaminants. This "signal" light is transmitted through a return fiber, back up hole to be analyzed. Responses are indicated in real-time on a graph of signal vs. depth. The UVOST log displays "color mixed" signal logs (contributions from 4 channels) and waveforms ("fingerprint" of multi-wavelength) to aid in identification and relative quantity of the contaminant present.

Prior to every log the UVOST system is checked for optical quality by observing the background signal for sources of signal in the fiber, filter, mirror and sapphire window. Also, the reference emitter (a standard proprietary NAPL mixture called the "RE") is placed on the window to determine the qualitative and semi-quantitative properties of the laser system. This is to assure that the RE response has the correct shape and intensity and that the UVOST system is ready to log. Typically the RE will fall between 10,000 and 12,000 pVs (picovolt-seconds, a measure of waveform area) and the background can vary from 0.1% to 1% (area of about 0-100 pVs). It is important to remember that the relationship between the NAPL in the ground and the RE depends on that particular NAPL. The calibration of the system is not to a concentration, but to a known fluorescence signature.

EC (Electrical Conductivity)

Electrical Conductivity (EC) is a measure of the soils ability to conduct an electrical current between two dipoles on the LIF/EC probe. Conductivity is the reciprocal of electrical resistivity and has the units (in our application) of millisiemens per meter (mS/m). Since soil is in the pathway of the charge flow, the grain size can be determined by comparing the EC log to a soil boring. Conductivity readings in the 100s indicate smaller grain (size such as clay). Larger grain size (sand and gravels) are typically in the 10s of mS/m range. Prior to every log the EC point of the UVOST probe is checked for proper operation by performing a voltage test with a voltage meter and a conductivity test with a test block.

MATRIX ENVIRONMENTAL LLC

11253 91st Ave. N.
Maple Grove, Minnesota 55369
(763) 424-4803
fax (763) 424-9452

Client:	Golder Associates
Contact:	Jim Peace
Services:	UVOST Logging
Date:	04/24/12 - 04/25/12
Project:	Electrolux
Project #:	047-MNDS-12UV
Address:	Jefferson, IA

UVOST Log Summary

File	Date/Time	Latitude	Longitude	Final Depth *(ft)*	Max Signal *(%RE)*	Max. Signal Depth *(ft)*	Initial RE Area *(pVs)*	Background Area *(pVs)*	Fluorescence Top - Bottom *(ft)*
LIF-01 (MIP-16A)	4/24/2012 15:15	NA	NA	18.3	119	4.3	11623	74	
LIF-02 (MIP-03)	4/24/2012 15:54	NA	NA	22.5	9	0.5	11823	62	NA
LIF-03 (MIP-32)	4/24/2012 18:47	NA	NA	18.3	90	10.1	11122	55	0.4-12.7
LIF-04	4/25/2012 7:45	NA	NA	18.2	11	8.7	11280	64	4.6-10.2
LIF-05	4/25/2012 8:09	NA	NA	16.0	58	6.9	11210	54	5.3-9.9
LIF-06	4/25/2012 8:30	NA	NA	19.0	84	10.8	11522	56	6.0-18.2
LIF-07	4/25/2012 8:58	NA	NA	11.0	8	7.7	11718	65	4.5-9.7
LIF-08	4/25/2012 9:17	NA	NA	11.0	266	7.4	11042	53	4.3-10.0
LIF-09	4/25/2012 9:36	NA	NA	10.1	64	8.1	11737	52	spike @ 0.3, 4.9-8.8
LIF-10	4/25/2012 9:55	NA	NA	10.1	12	5.9	11290	66	3.6-8.3
LIF-11	4/25/2012 10:10	NA	NA	9.9	133	6.0	11460	60	0.9-8.4
LIF-12	4/25/2012 10:27	NA	NA	13.2	106	7.5	11332	36	0.2-9.6 (low to 11.2)
LIF-13	4/25/2012 10:45	NA	NA	12.1	134	8.2	11042	47	0.4-2.2, 4.5-10.8-
LIF-14	4/25/2012 11:03	NA	NA	10.1	3	6.7	11499	45	low 4.0-8.0
LIF-15 (MIP-30)	4/25/2012 11:23	NA	NA	12.0	67	6.1	11415	45	low 0.2-5.6, 5.6-8.4
LIF-16 (MIP-23)	4/25/2012 11:43	NA	NA	10.7	56	1.3	11520	47	0-9.5
LIF-17 (MIP-05)	4/25/2012 12:04	NA	NA	13.0	32	9.2	11134	30	0-2 low, 4.2-10.8
LIF-18 (MIP-20)	4/25/2012 13:40	NA	NA	10.1	6	4.5	11550	58	NA
LIF-19	4/25/2012 14:01	NA	NA	10.1	2	0.7	11904	64	NA
LIF-20	4/25/2012 14:24	NA	NA	10.1	18	7.4	11590	68	6.2-8.2
LIF-21	4/25/2012 14:41	NA	NA	5.2	6	0.4	11372	64	refusal @ 5.22'
LIF-22	4/25/2012 14:59	NA	NA	11.1	4	7.8	11811	58	6.0-7.0, 7.6-8.9
LIF-23	4/25/2012 15:19	NA	NA	14.1	17	10.1	11609	57	6.2-11.8
LIF-24	4/25/2012 15:42	NA	NA	12.0	22	0.9	11775	49	0-8.8

UVOST Log Reference Guide

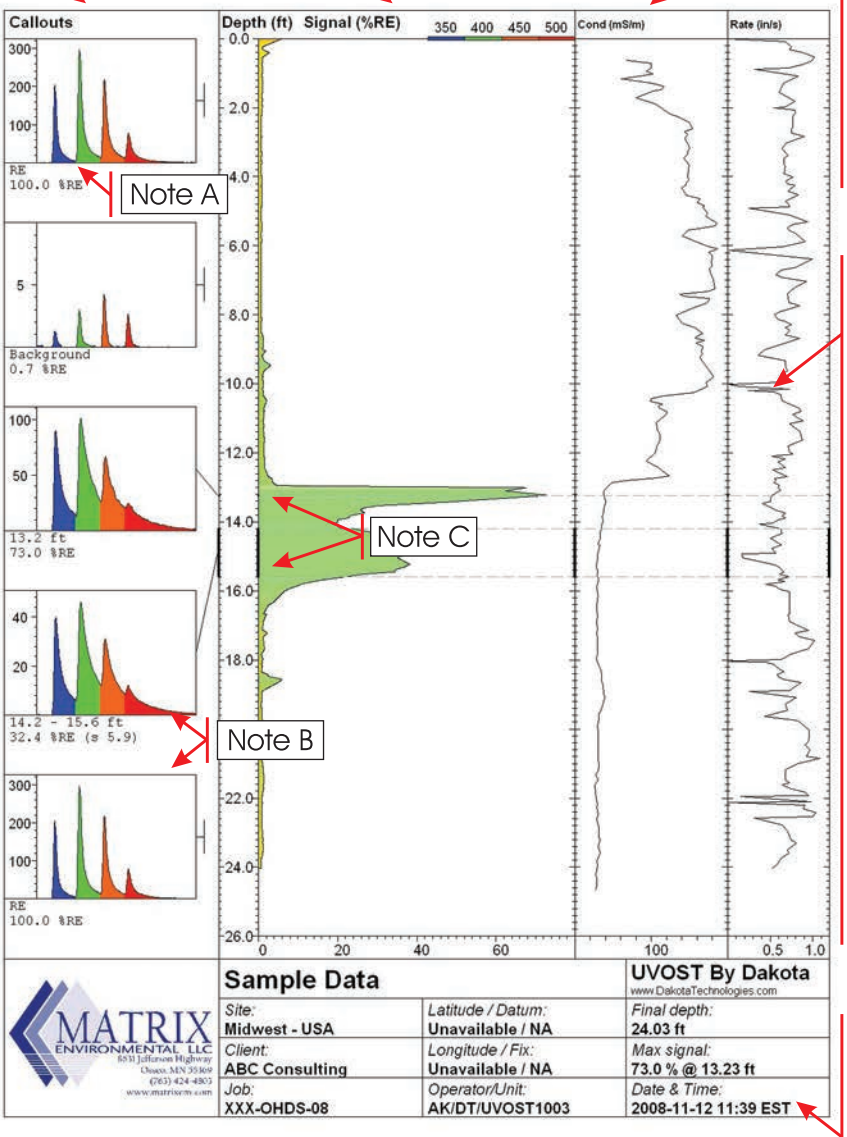
Main Plot :
Signal (total fluorescence) versus depth where signal is relative to the Reference Emitter (RE).The total area of the waveform is divided by the total area of the Reference Emitter yielding the %RE.This %RE scales with the NAPL fluorescence. The fill color is based on relative contribution of each channel's area to the total waveform area (see callout waveform).The channel-to-color relationship and corresponding wavelengths are given in the upper right corner of the main plot.

Callouts :
Waveforms from selected depths or depth ranges showing the multi-wavelength waveform for that depth.

The four peaks are due to fluorescence at four wavelengths and referred to as "channels". Each channel is assigned a color.

Various NAPLs will have a unique waveform "fingerprint" due to the relative amplitude of the four channels and/or broadening of one or more channels.

Basic waveform statistics and any operator notes are given below the callout.



Conductivity Plot :
The Electrical Conductivity (EC) of the soil can be logged simultaneously with the UVOSTdata. EC often provides insight into the stratigraphy.
Note the drop in EC from 10 - 13 ft, indicating a shift from consolidated to unconsolidated stratigraphy.This correlates with the observed NAPL distribution.

Rate Plot :
The rate of probe advancement. ~ 0.8 in (2cm) per second is preferred.

A noticeable decrease in the rate of advancement may be indicative of difficult probing conditions (gravel, angular sands, etc.).

Notice that this log was terminated arbitrarily, not due to "refusal", which would have been indicated by a sudden rate drop at final depth.

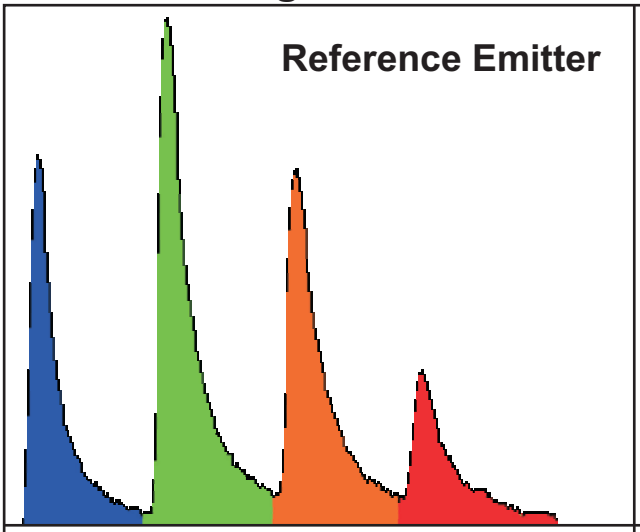
Info Box :
Contains pertinent log info including name and location.

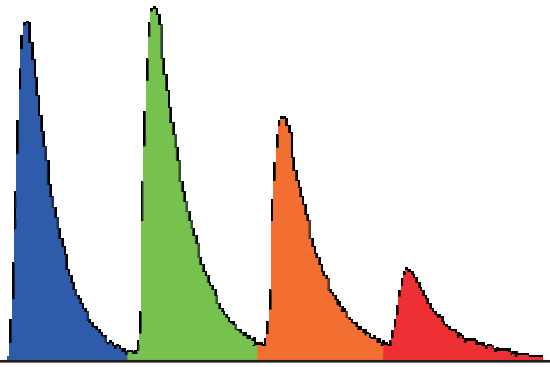
NoteA:
Time is along the x axis. No scale is given, but it is a consistent 320ns wide.
The y axis is in mV and directly corresponds to the amount of light striking the photodetector.

Note B :
These two waveforms are clearly different.The first is weathered diesel from the log itself while the second is the Reference Emitter (a blend of NAPLs) always taken before each log for calibration.

Note C :
Callouts can be a single depth (see 3rd callout) or a range (see 4th callout).The range is noted on the depth axis by a bold line. When the callout is a range, the average and standard deviation in %RE is given below the callout.

Waveform Signal Calculation



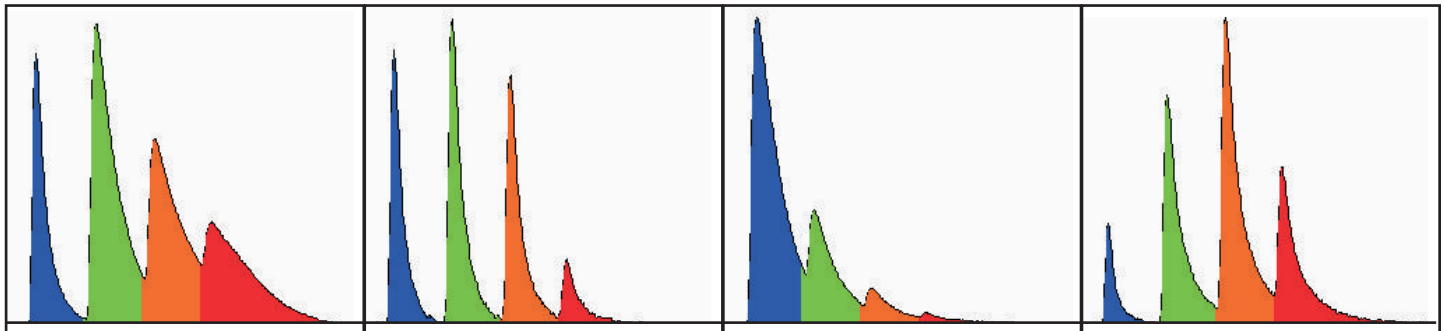


CH1		CH2		CH3		CH4		Total		CH1		CH2		CH3		CH4		Total
4820	+	8108	+	6249	+	2984	=	**22161**	***Channel Area (pVs)***	4923	+	5743	+	4166	+	1735	=	**16587**
21.7		36.6		28.2		13.5		**100%**	***Percent RE***	22.3		25.9		18.8		7.8		**75%**

Data Files

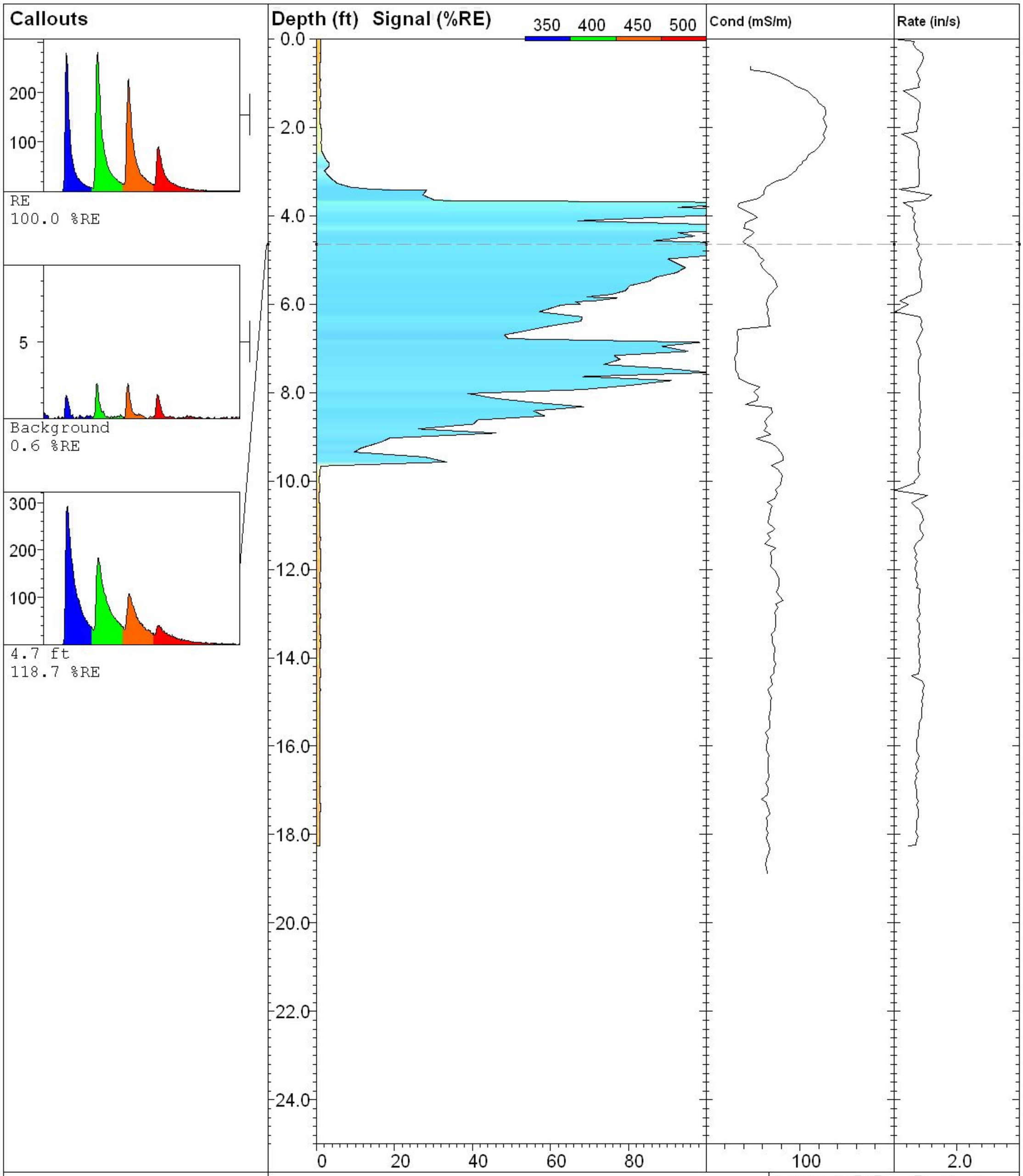
***.lif.raw.bin**	Raw data file. Header is ASCII format and contains information stored when the file was initially written (e.g. date, total depth, max signal, gps, etc., and any information entered by the operator). All raw waveforms are appended to the bottom of the file in a binary format.
***.lif.plt**	Stores the plot scheme history (e.g. callout depths) for associated Raw file. Transfer along with the Raw file in order to recall previous plots.
***.lif.jpg**	A jpg image of the OST log including the main signal vs. depth plot, callouts, information, etc.
***.lif.dat.txt**	Data export of a single Raw file. ASCII tab delimited format. No string header is provided for the columns (to make importing into other programs easier). Each row is a unique depth reading. The columns are: Depth, Total Signal (%RE), Ch1%, Ch2%, Ch3%, Ch4%, Rate, Conductivity Depth, Conductivity Signal. Summing channels 1 to 4 yields the Total Signal.
***.lif.sum.txt**	A summary file for a number of Raw files. ASCII tab delimited format. The file contains a string header. The summary includes one row for each Raw file and contains information for each file including: the file name, gps coordinates, max depth, max signal, and depth at which the max signal occured.
***.lif.log.txt**	An activity log generated automatically located in the OST application directory in the 'log' subfolder. Each OST unit the computer operates will generate a separate log file per month. A log file contains much of the header information contained within each separate Raw file, including: date, total depth, max signal, etc.

Common Waveforms (highly dependent on soil, weathering, etc.)

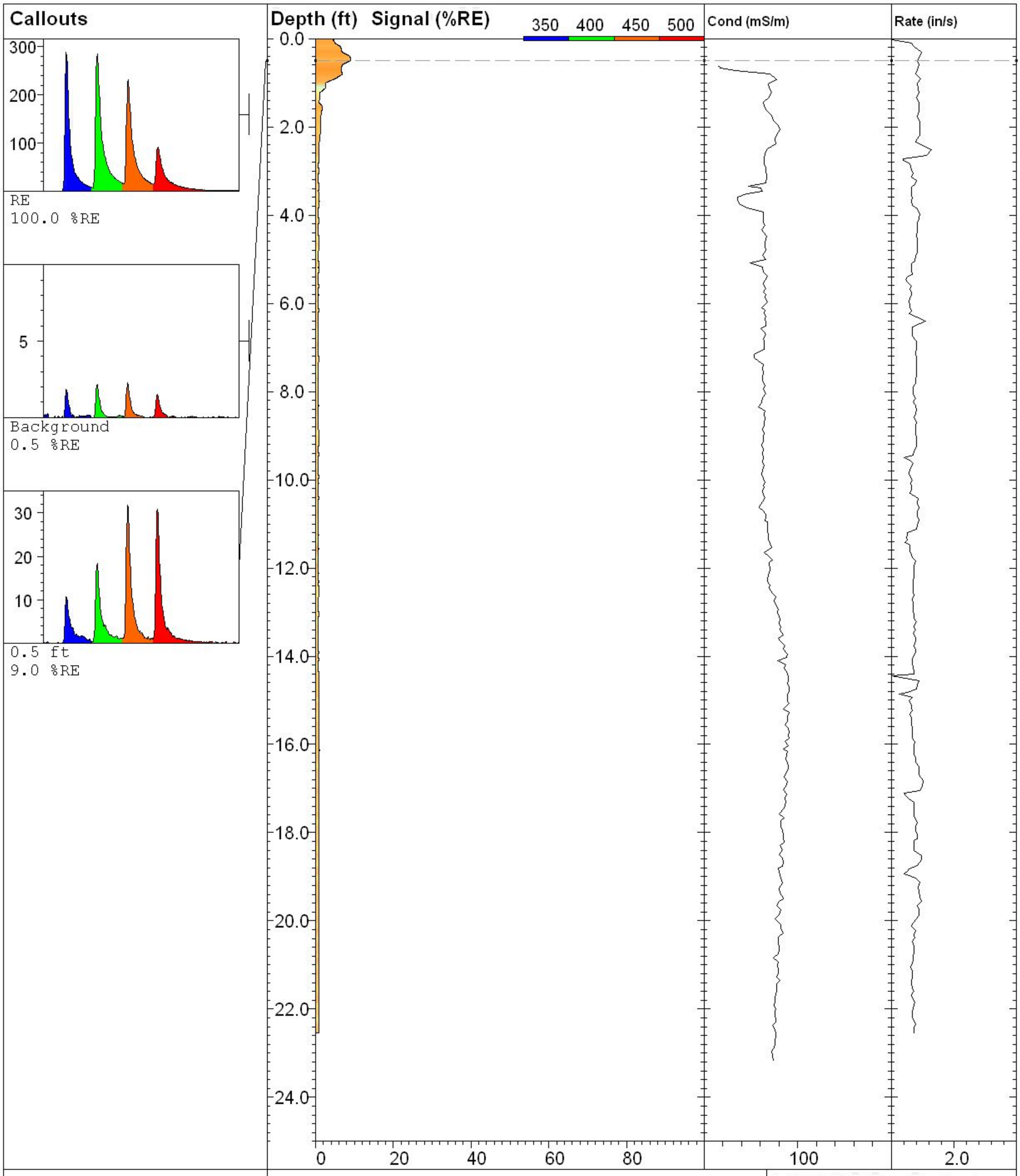


Diesel	Gas	Kerosene	Motor Oil

UVOST LOGS
@ 100% RE



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-01 (MIP-16A)**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **18.25 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **119.4 % @ 4.31 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-24 15:15 PDT**

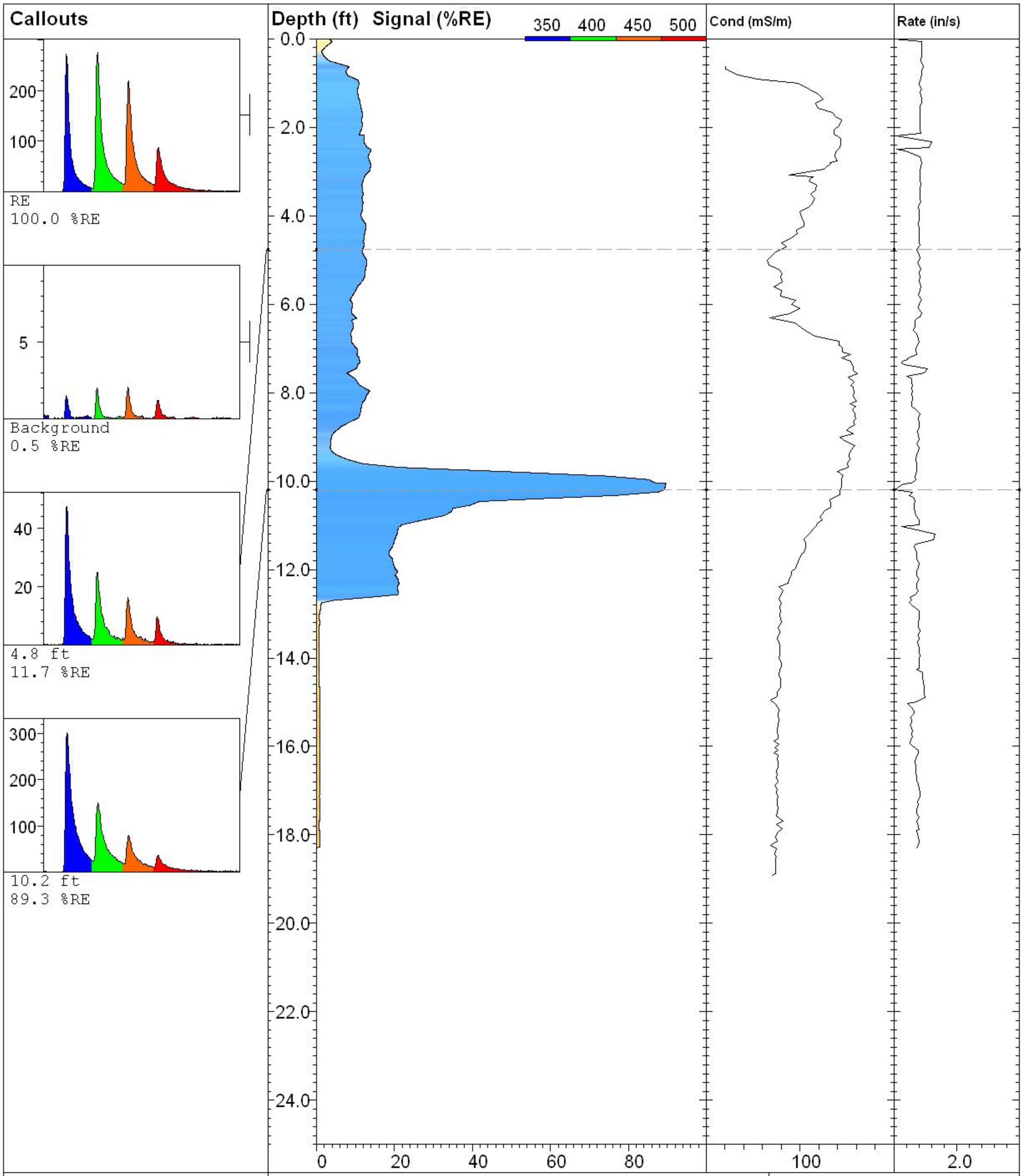


LIF-02 (MIP-03)

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **22.53 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **9.0 % @ 0.50 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-24 15:54 PDT**

MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

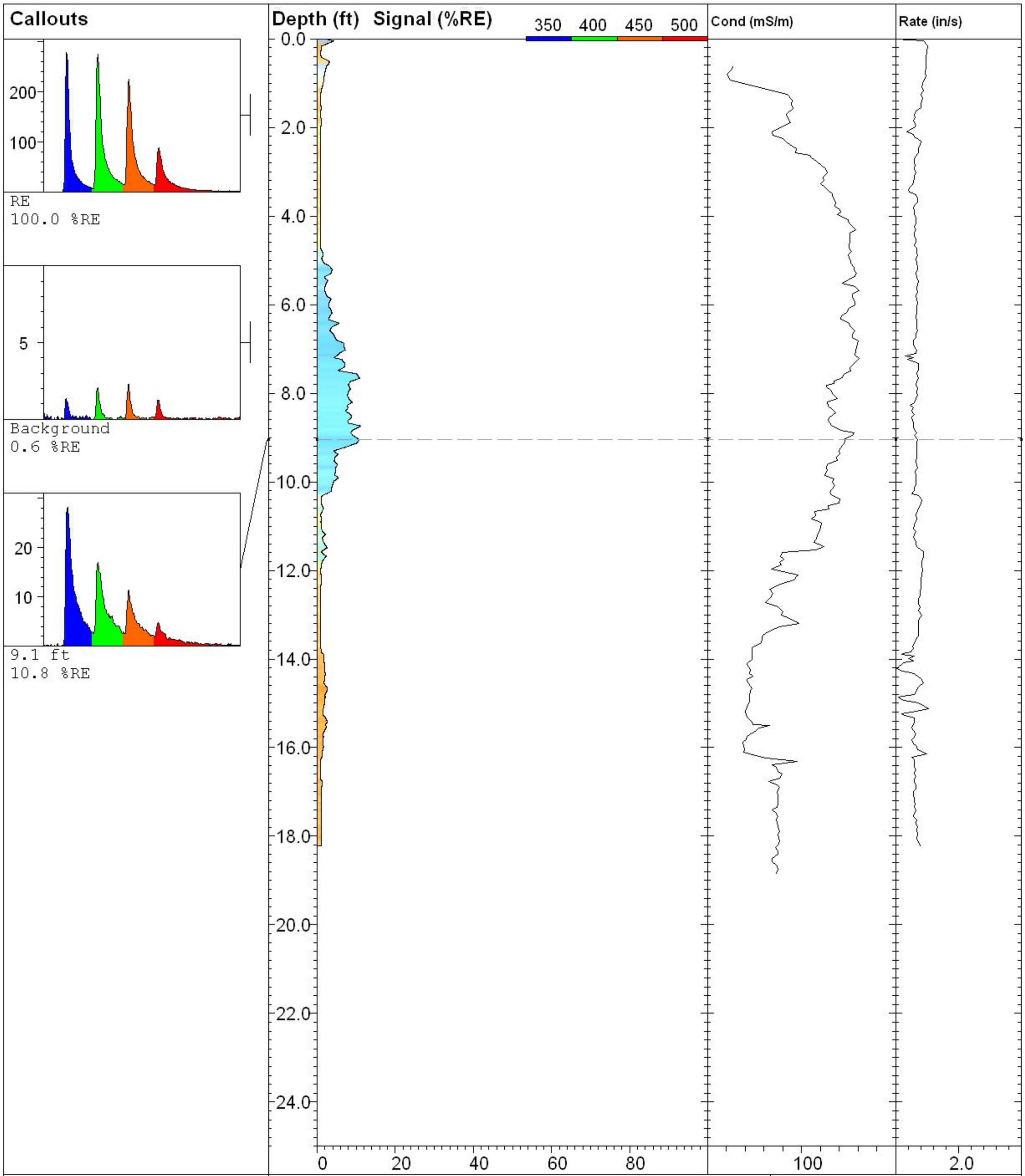


LIF-03 (MIP-32)

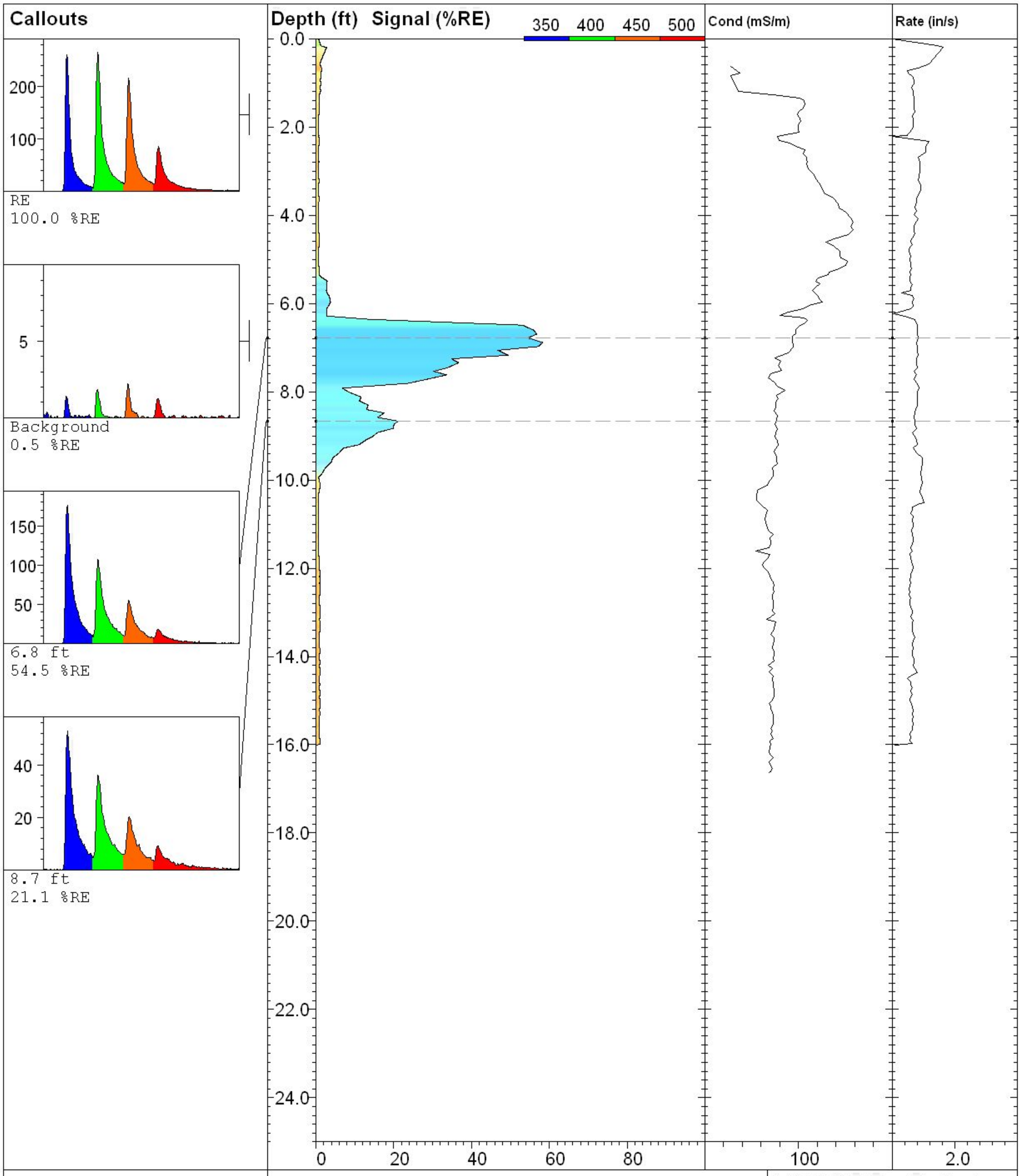
UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **18.29 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **89.7 % @ 10.06 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-24 18:47 PDT**

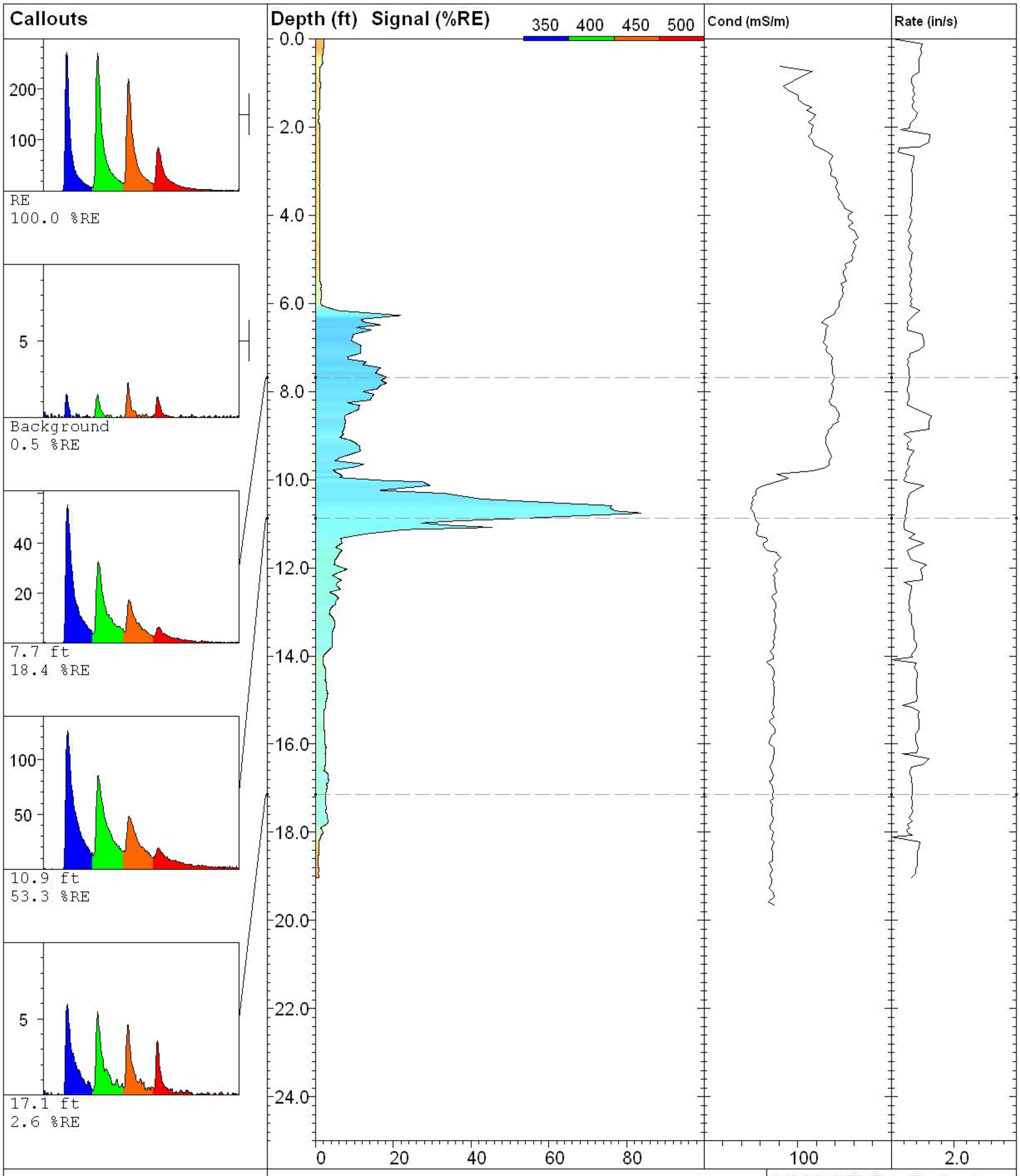
MATRIX ENVIRONMENTAL LLC
www.matrixenv.com



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-04**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **18.22 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **11.2 % @ 8.74 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 07:45 CDT**

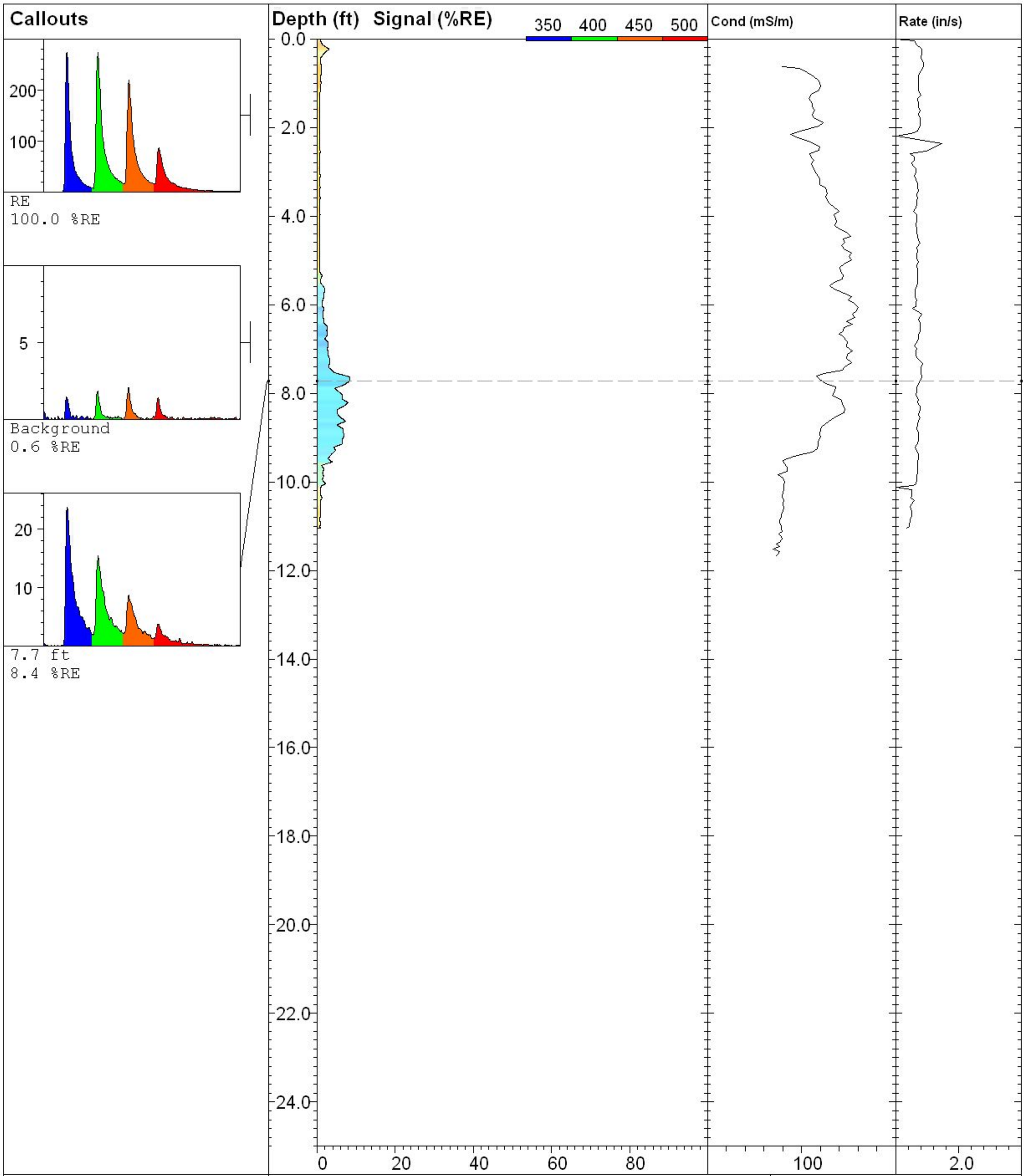


MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-05**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **16.00 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **58.4 % @ 6.89 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 08:09 CDT**

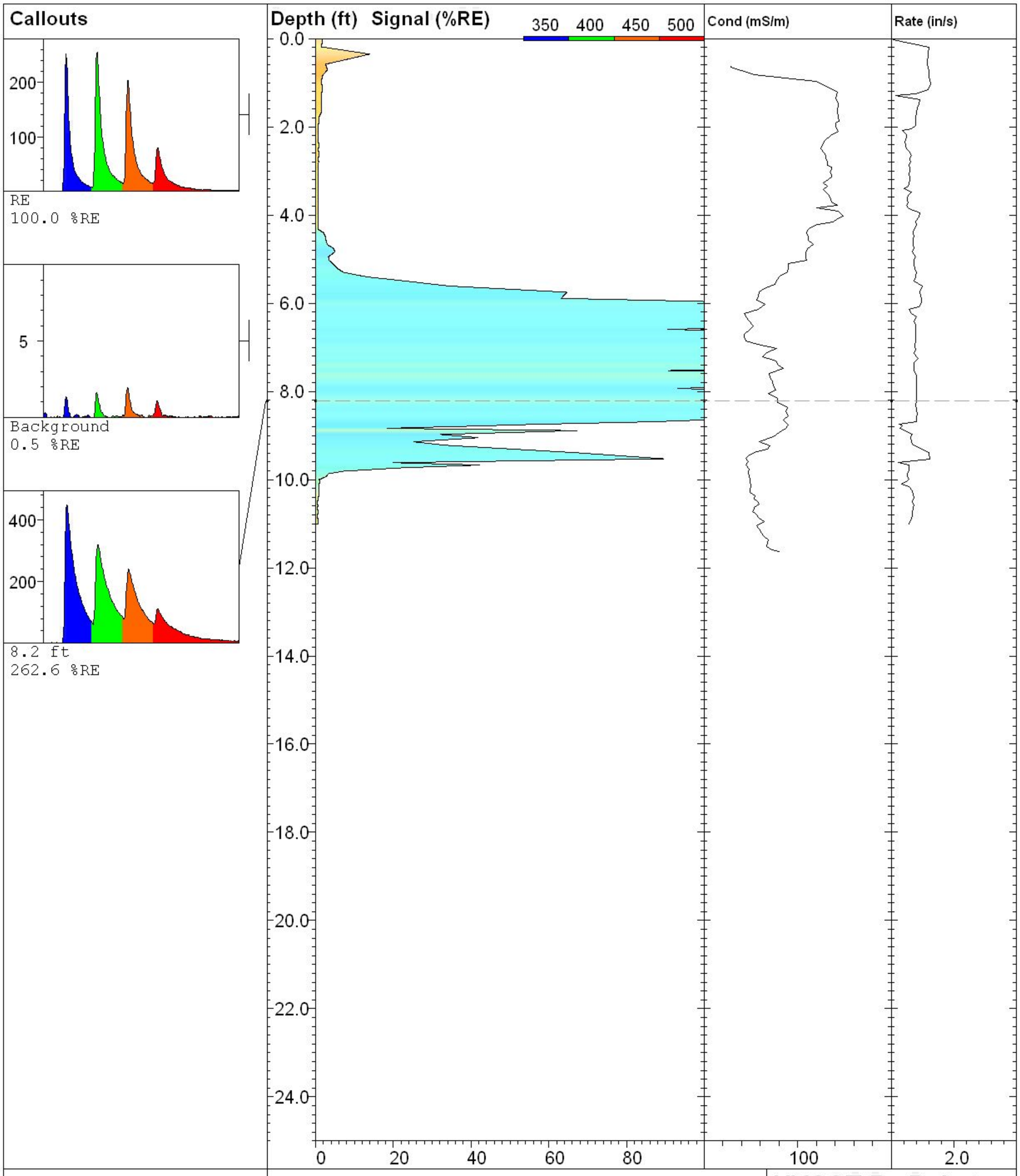


LIF-06		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **19.03 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **84.1 % @ 10.76 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 08:30 CDT**

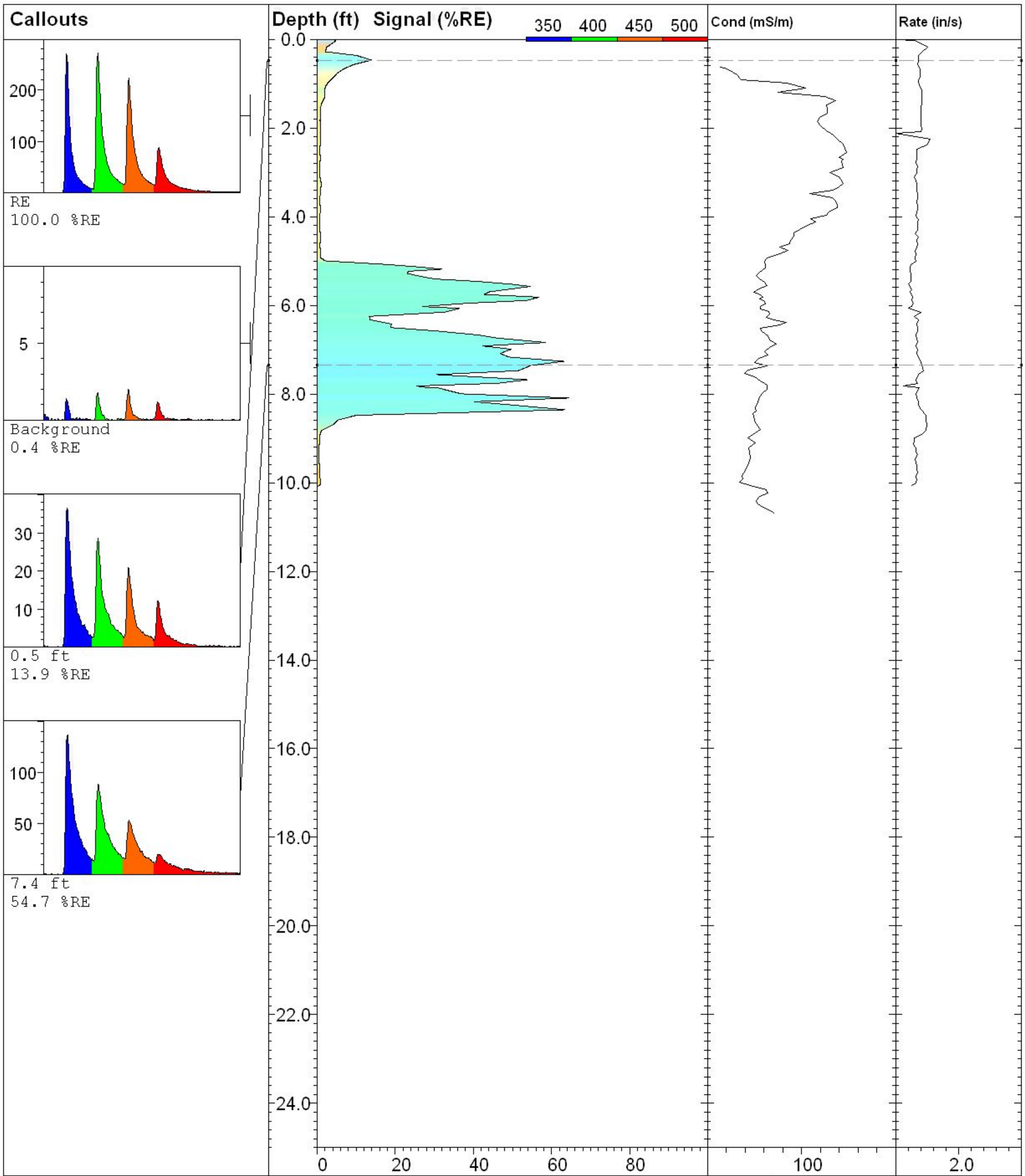
MATRIX ENVIRONMENTAL LLC
www.matrixenv.com



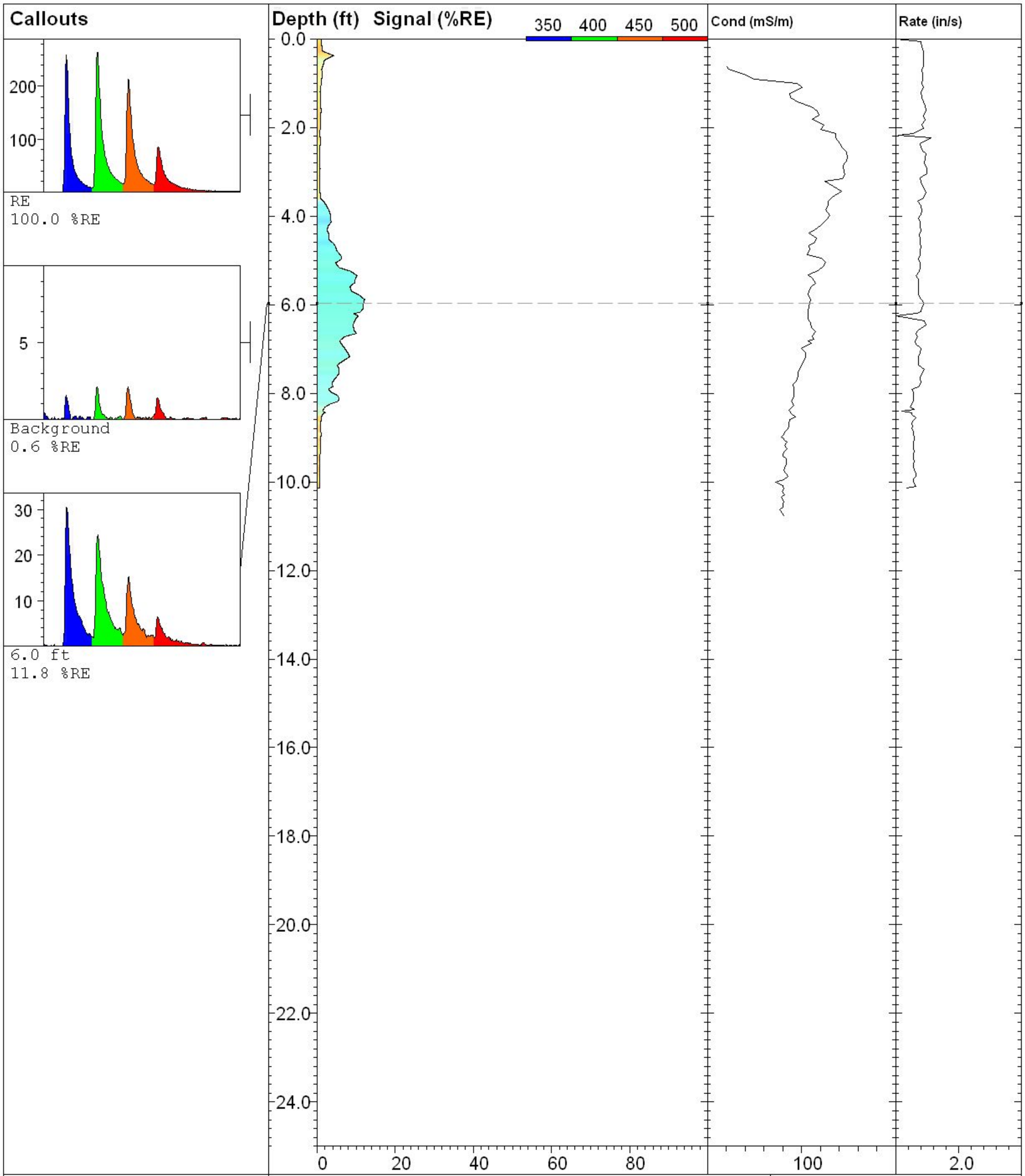
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-07**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **11.05 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **8.4 % @ 7.72 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 08:58 CDT**



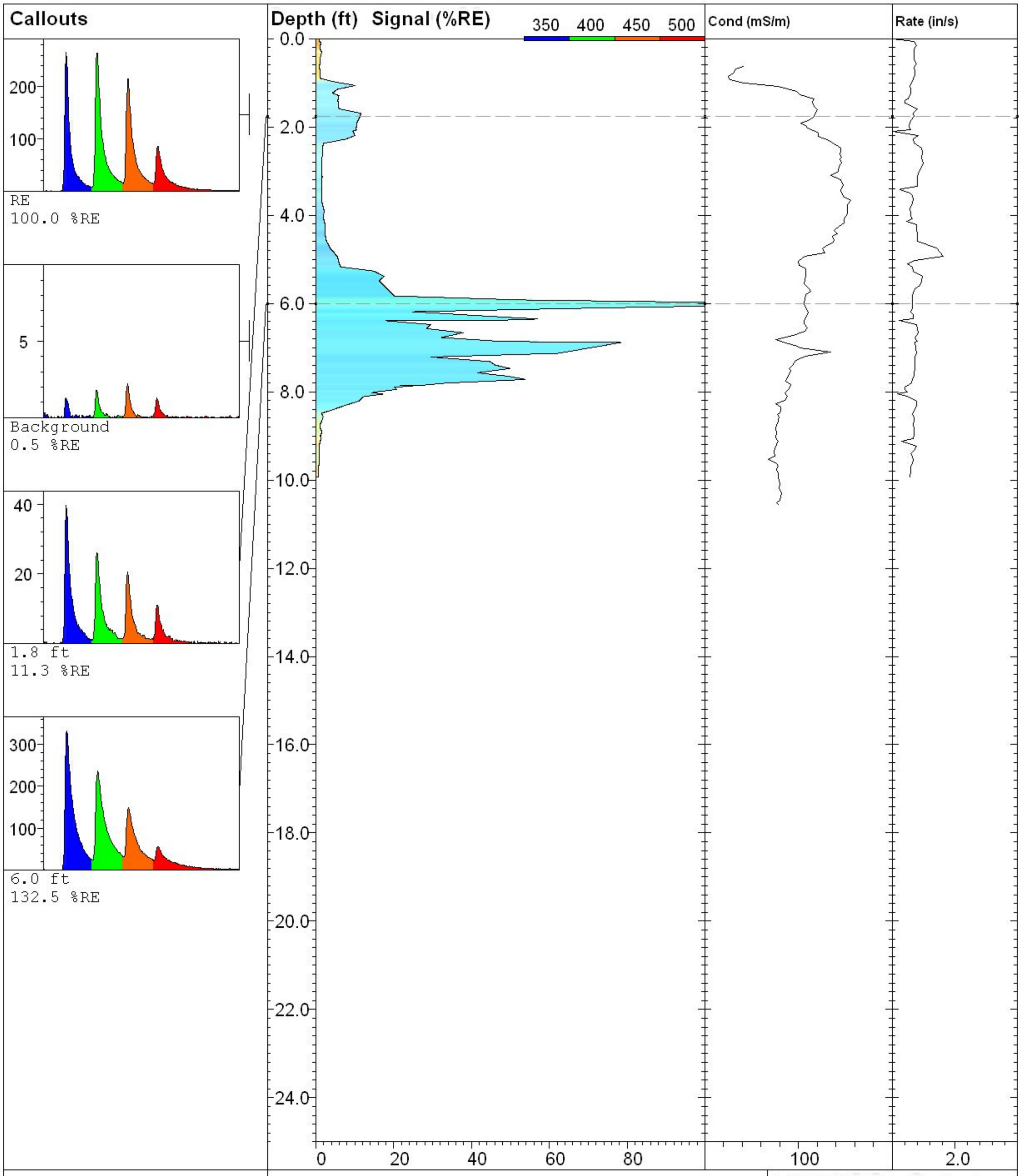
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-08**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **11.01 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **266.5 % @ 7.42 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 09:17 CDT**



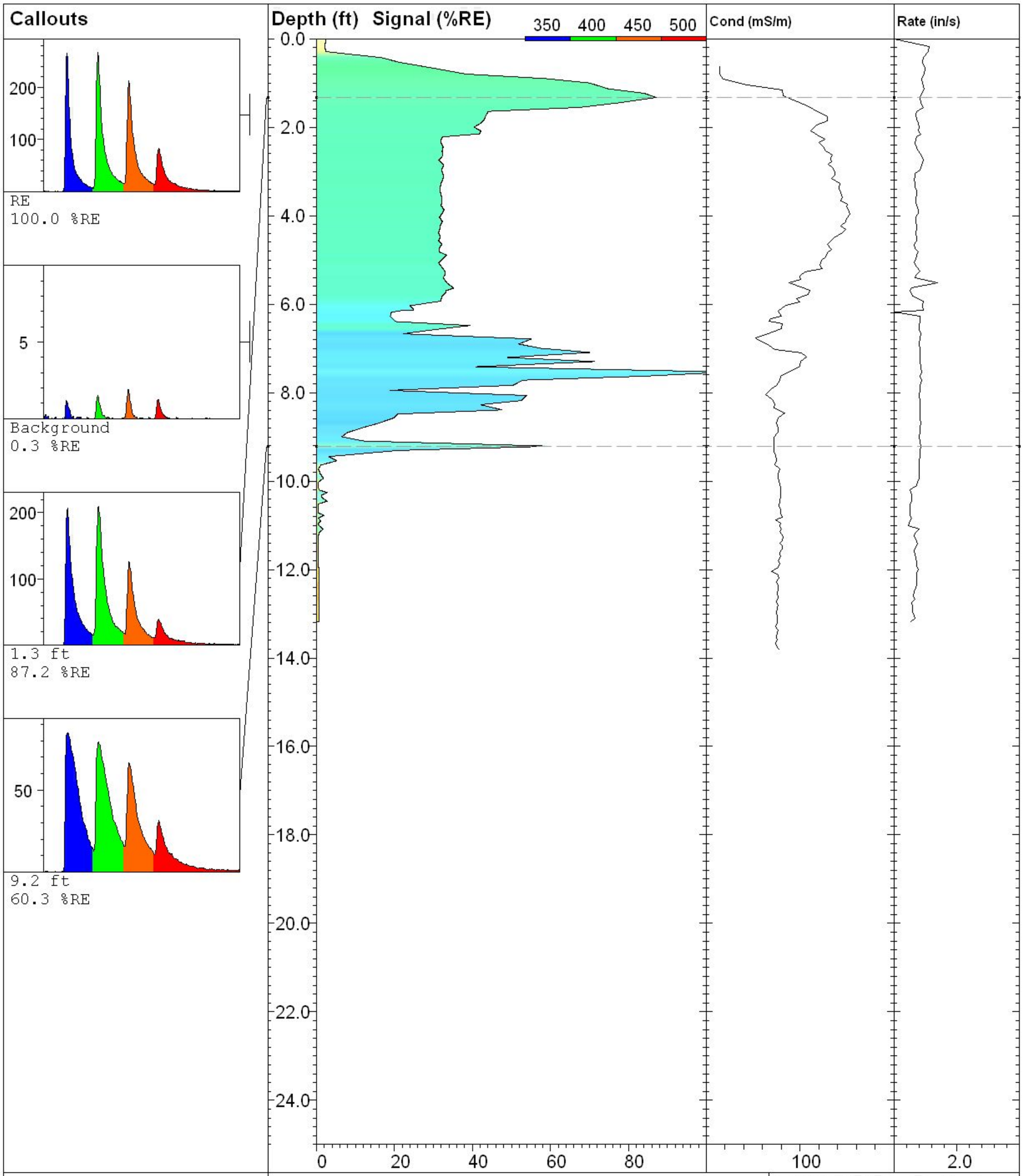
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-09**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.07 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **64.4 % @ 8.09 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 09:36 CDT**



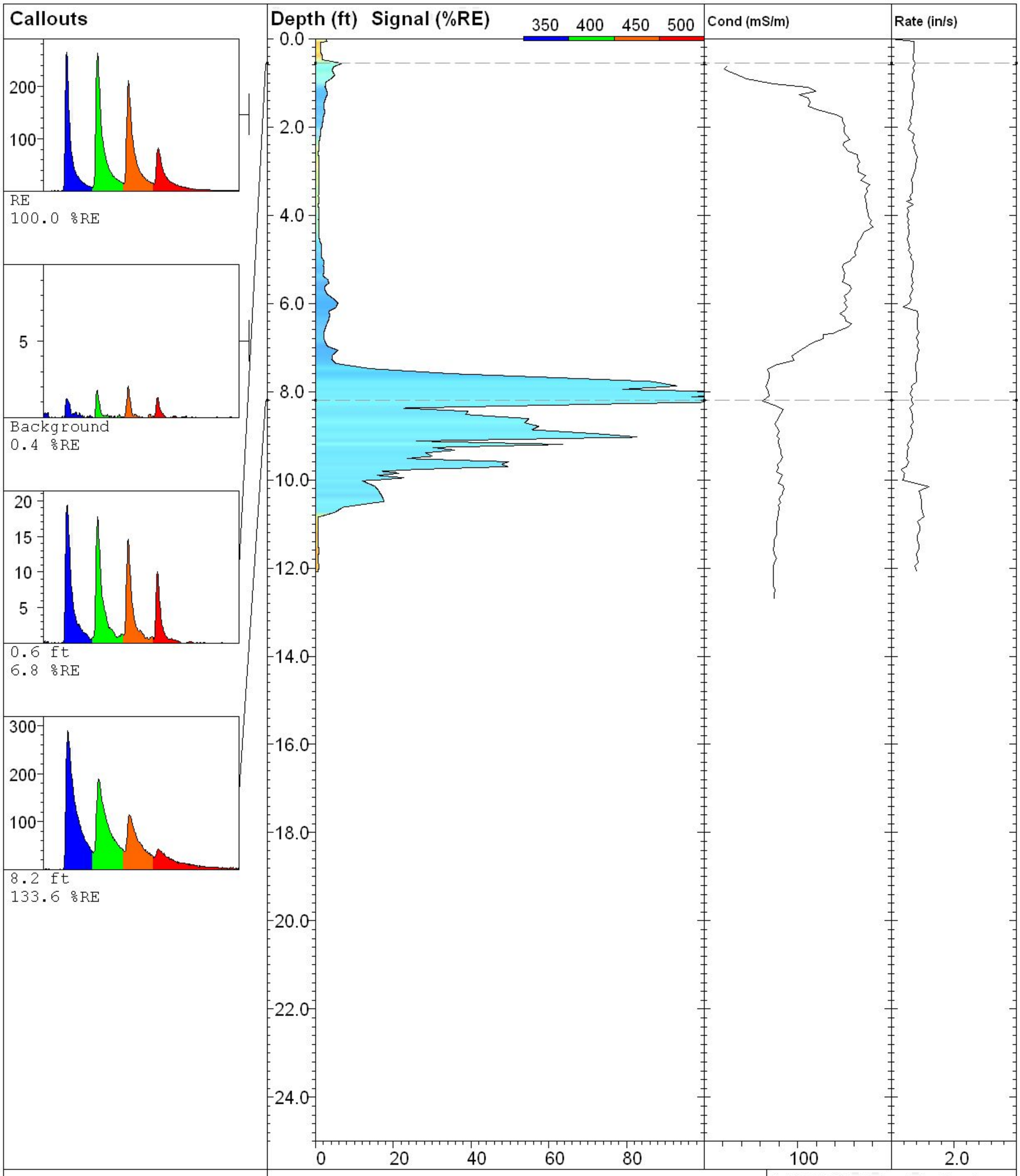
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-10**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.14 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **12.1 % @ 5.89 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 09:55 CDT**



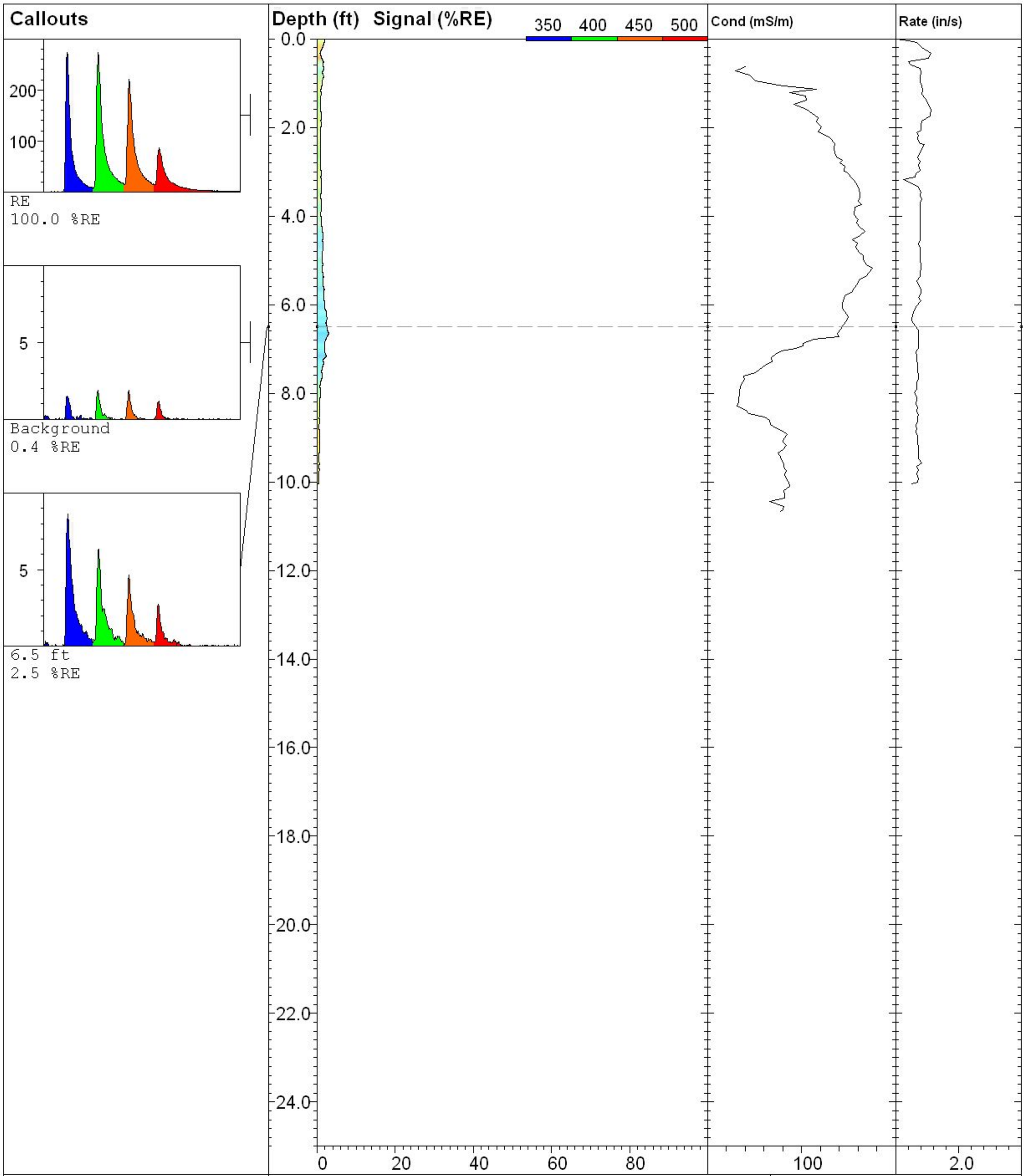
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-11**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **9.93 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **132.5 % @ 6.01 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 10:10 CDT**



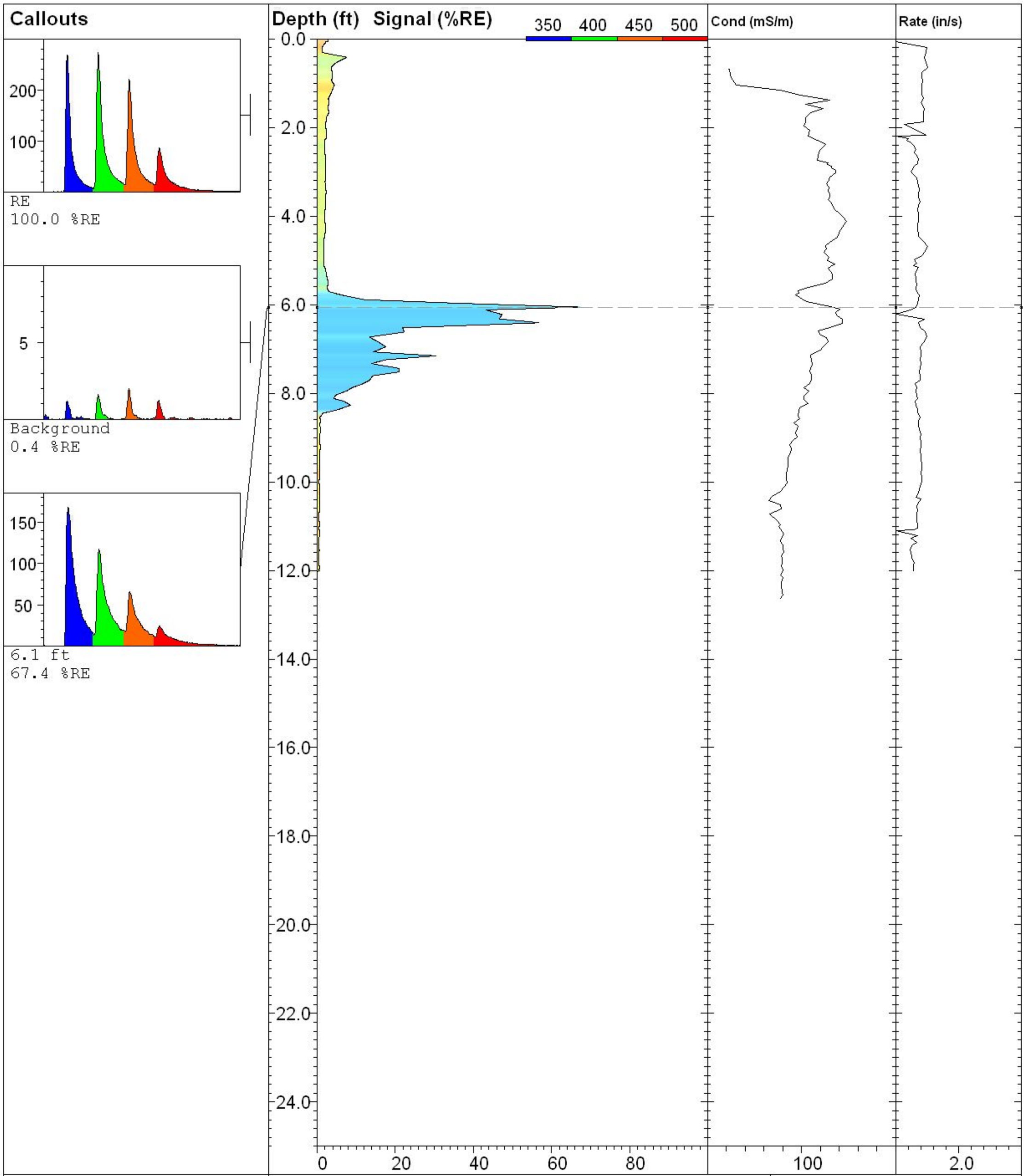
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-12**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **13.18 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **106.0 % @ 7.53 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 10:27 CDT**



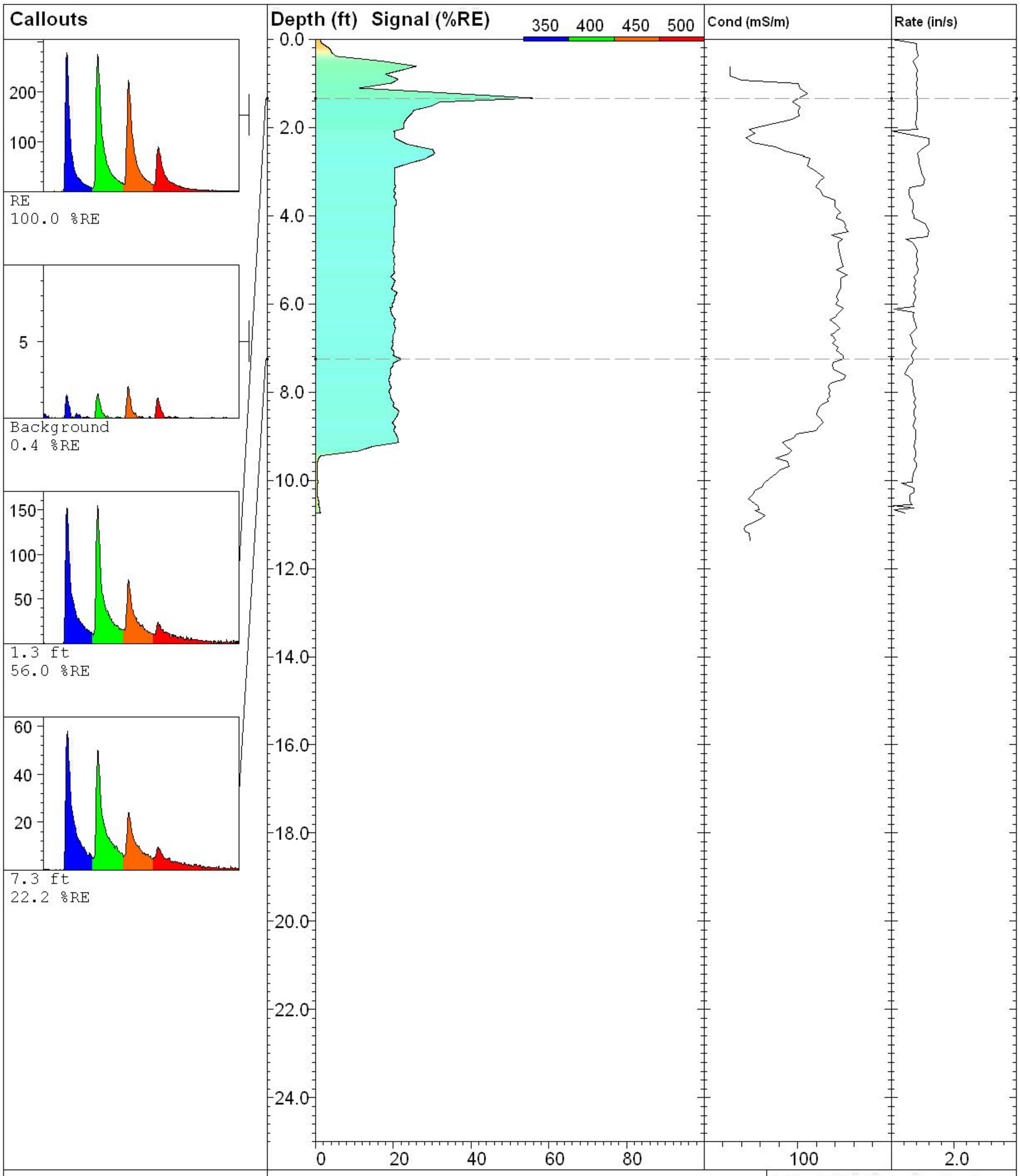
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-13**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.09 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **133.6 % @ 8.19 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 10:45 CDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-14**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.05 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **3.0 % @ 6.66 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 11:03 CDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-15 (MIP-30)**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.02 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **67.4 % @ 6.06 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 11:23 CDT**

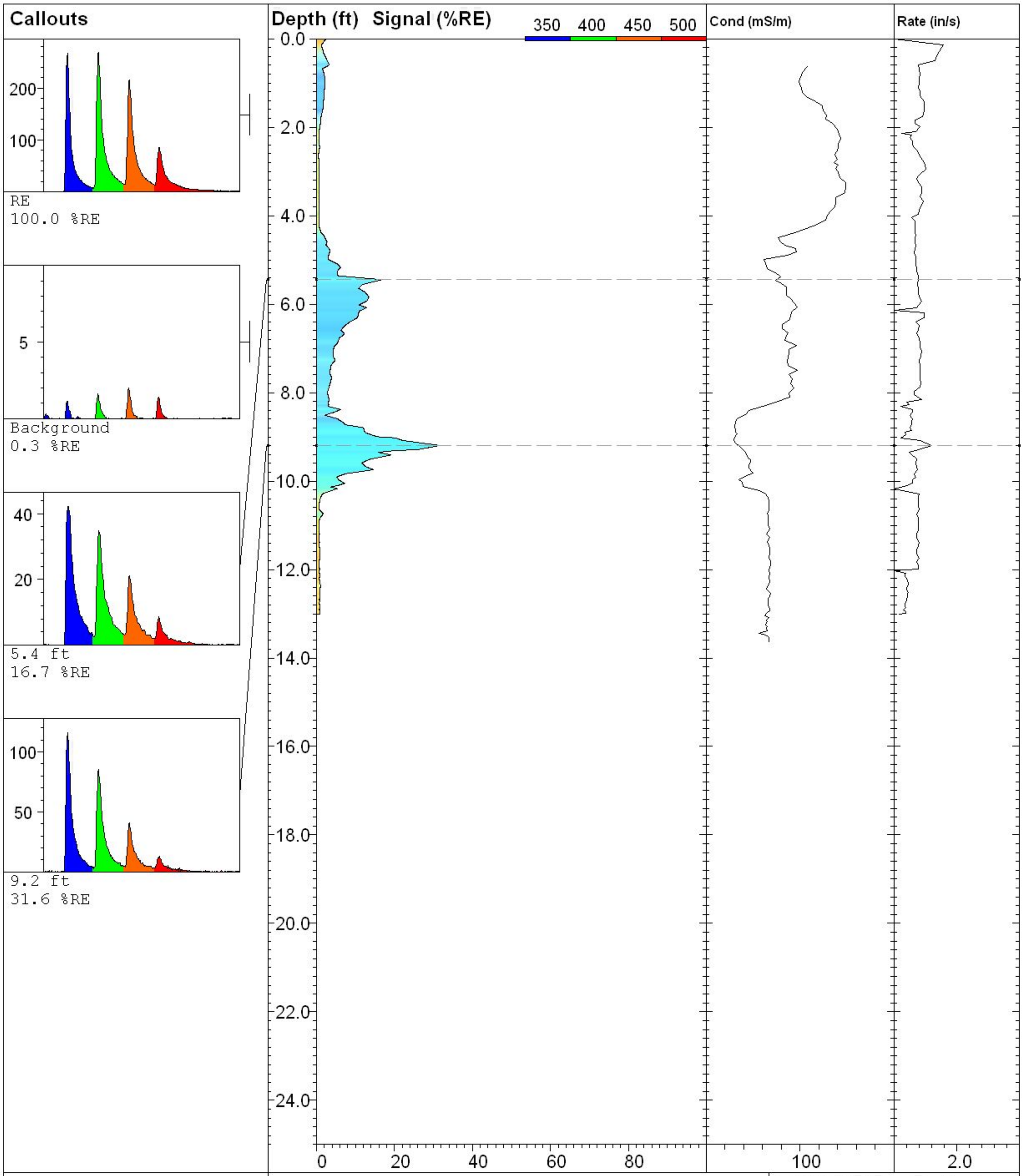


LIF-16 (MIP-23)

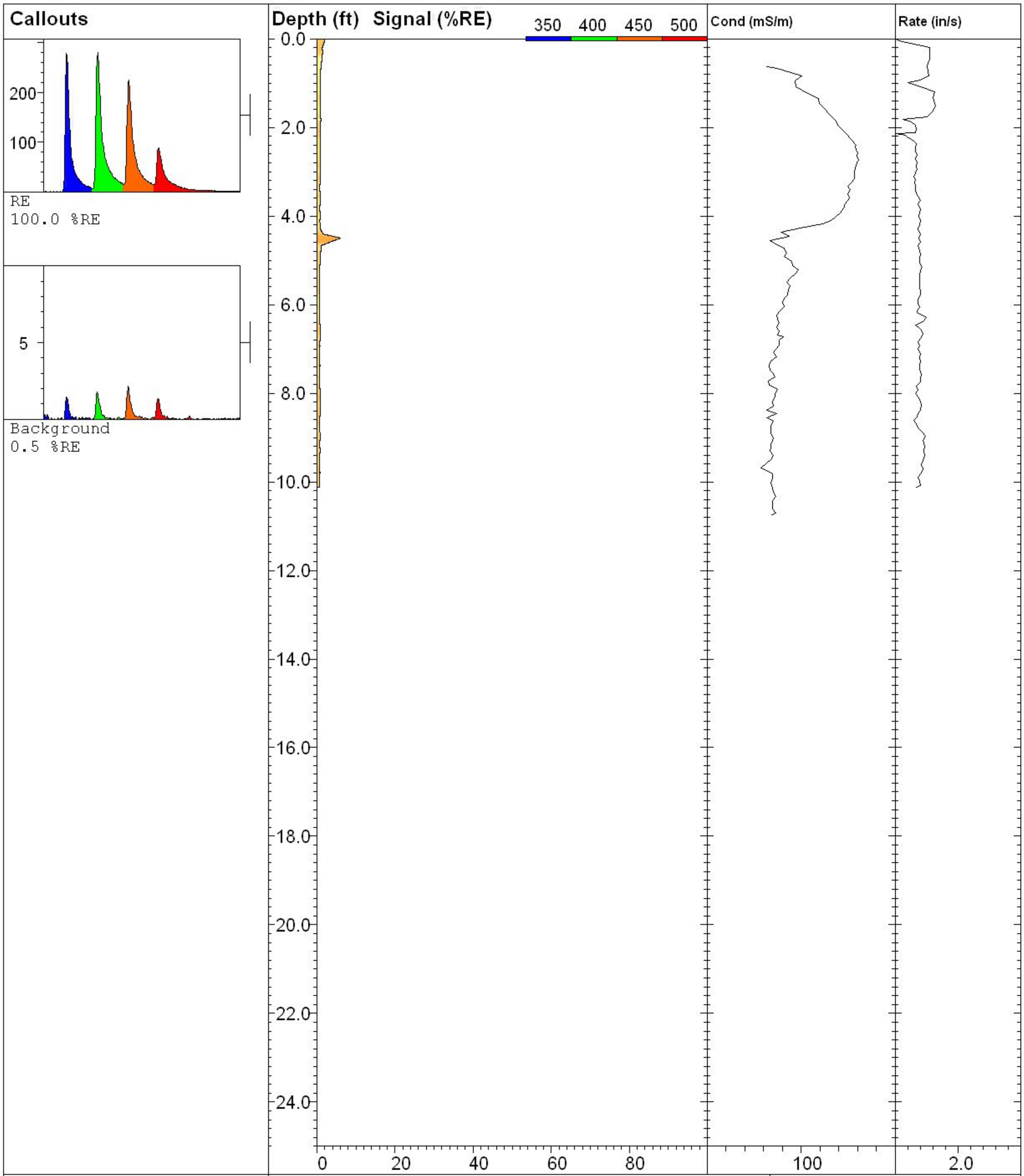
UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.74 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **56.0 % @ 1.34 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 11:43 CDT**

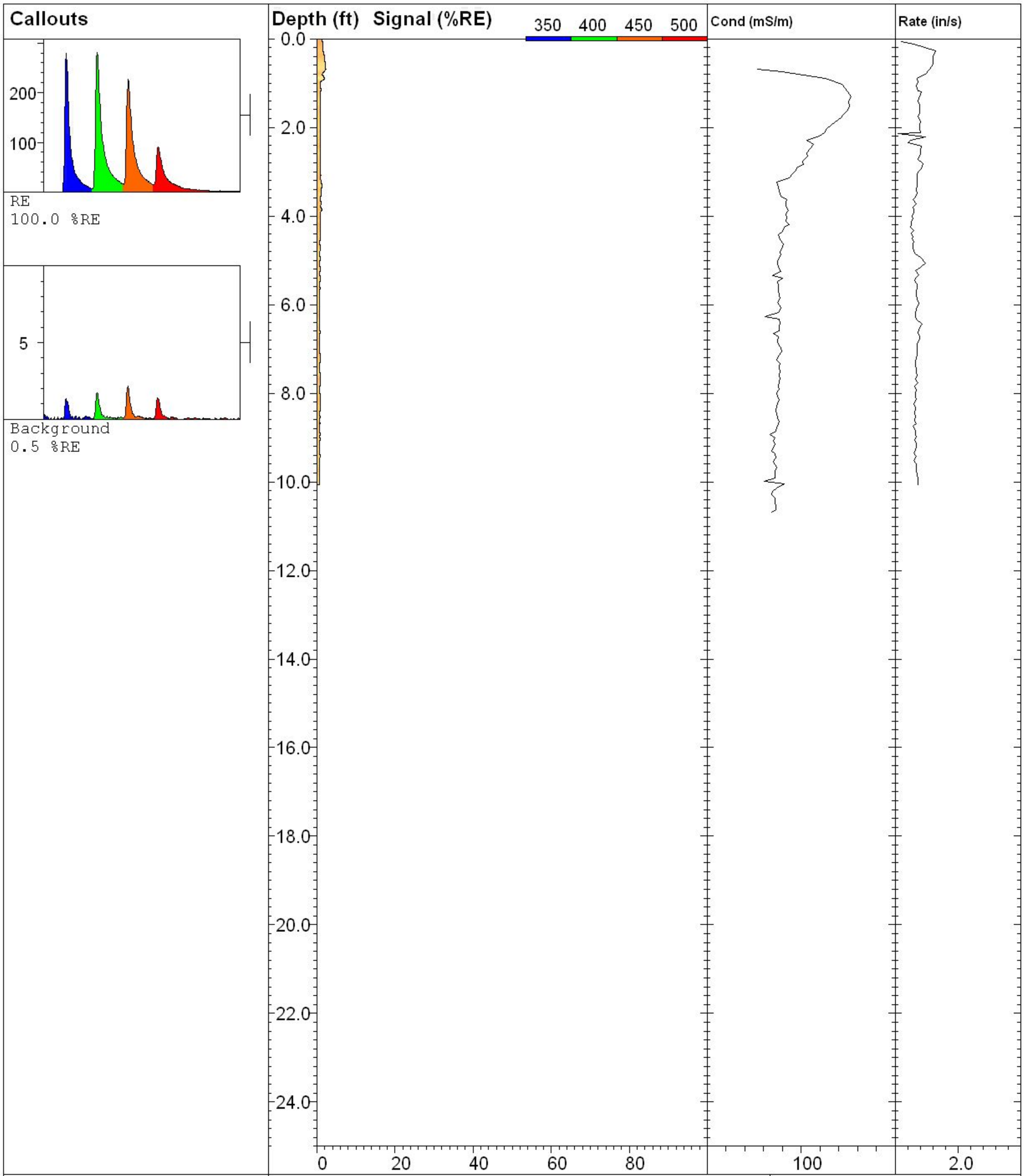
MATRIX ENVIRONMENTAL LLC
www.matrixenv.com



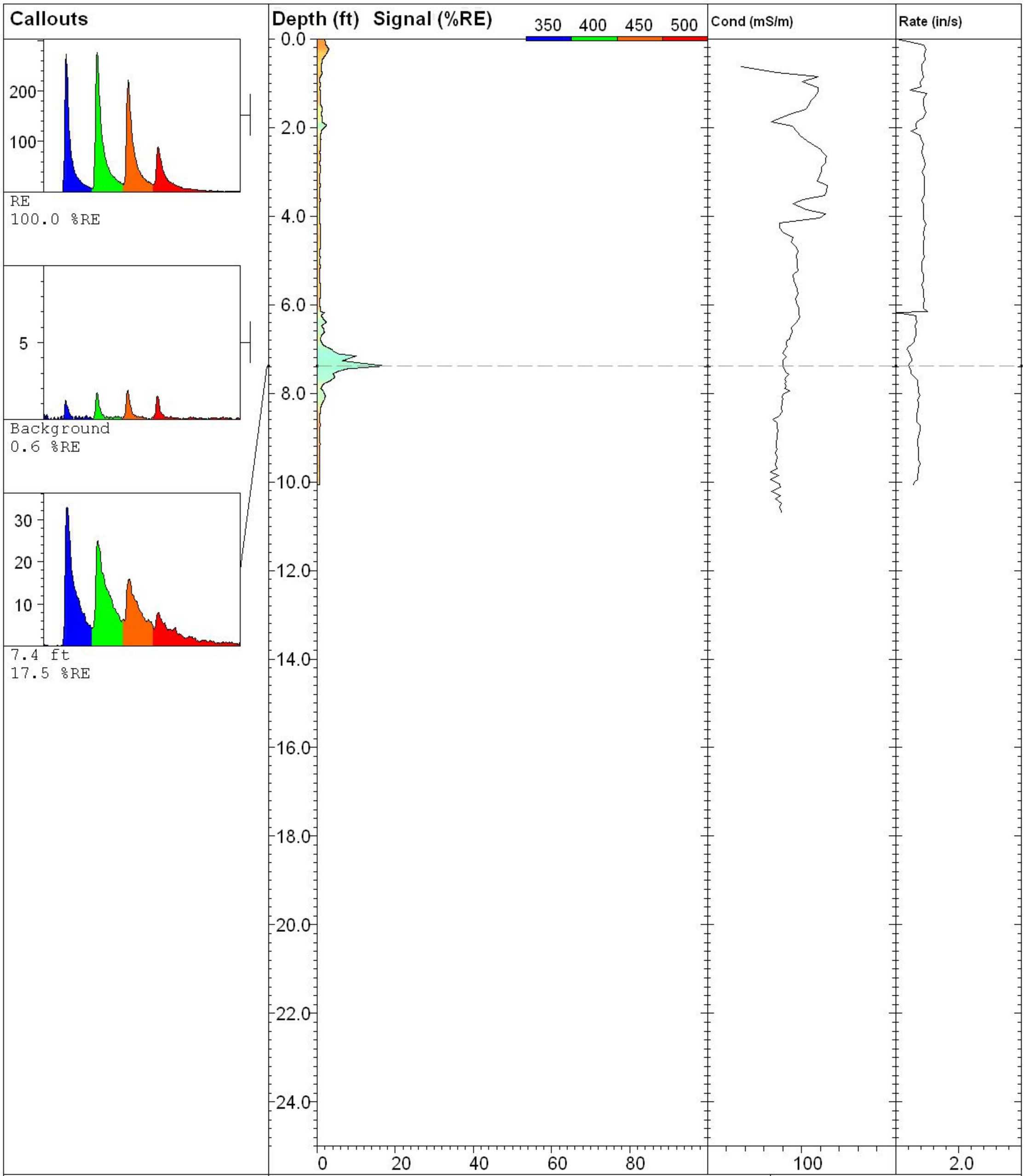
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-17 (MIP-05)**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **13.01 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **31.6 % @ 9.19 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 12:04 CDT**



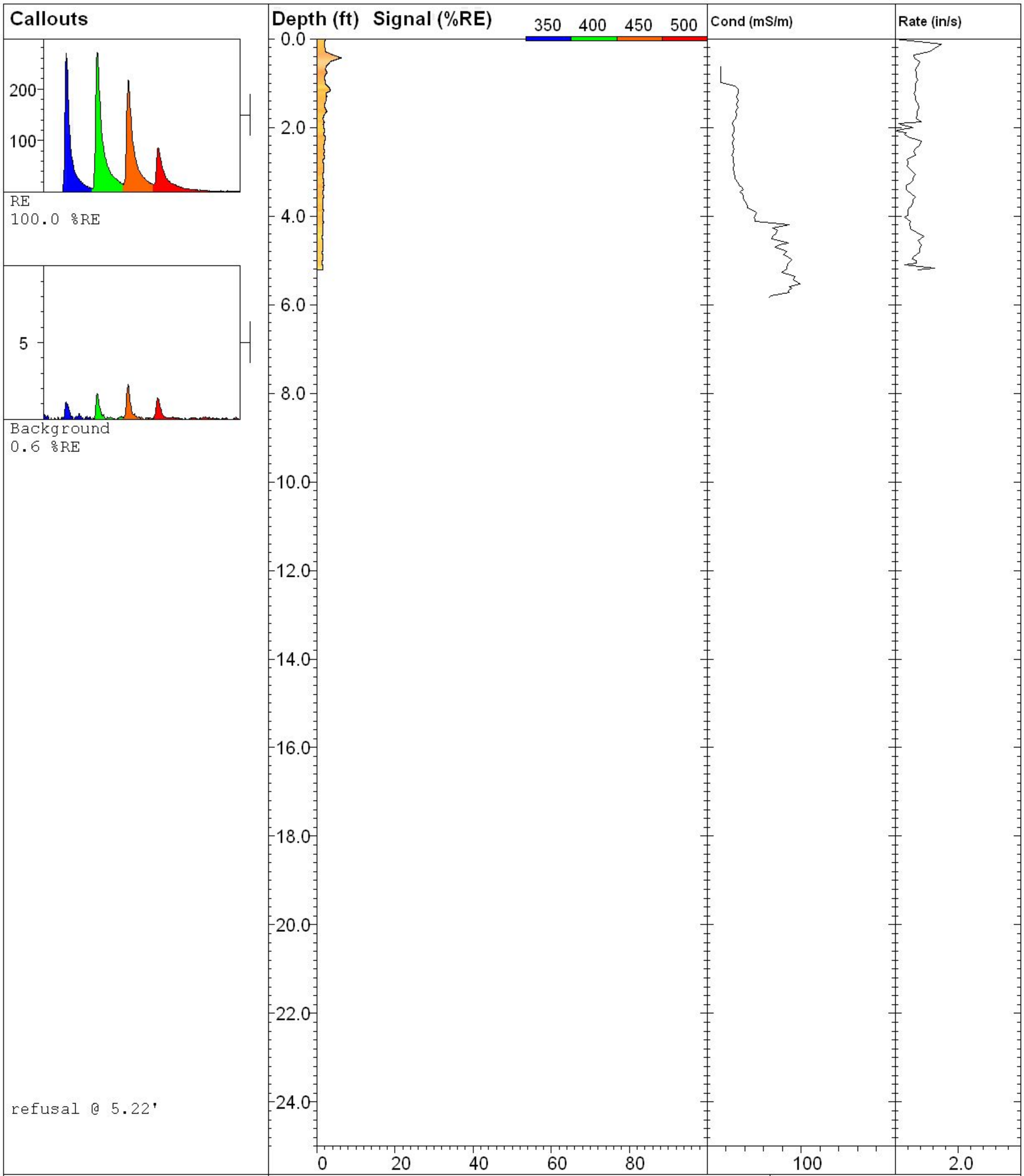
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-18 (MIP-20)**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.12 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **6.1 % @ 4.50 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 13:40 CDT**



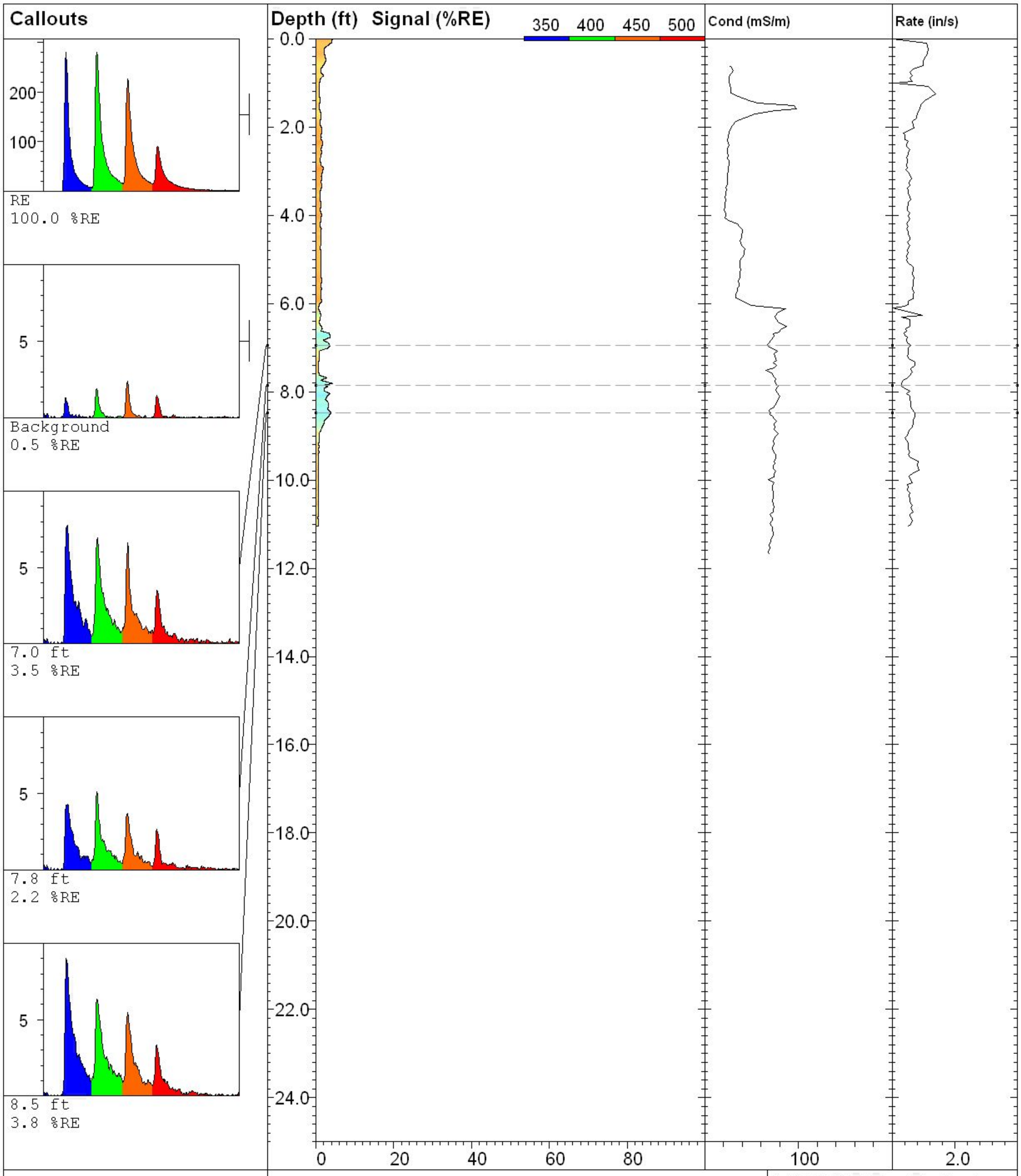
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-19**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.06 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **2.2 % @ 0.69 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 14:01 CDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-20**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.07 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **17.5 % @ 7.39 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 14:24 CDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-21**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **5.22 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **6.2 % @ 0.43 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 14:41 CDT**

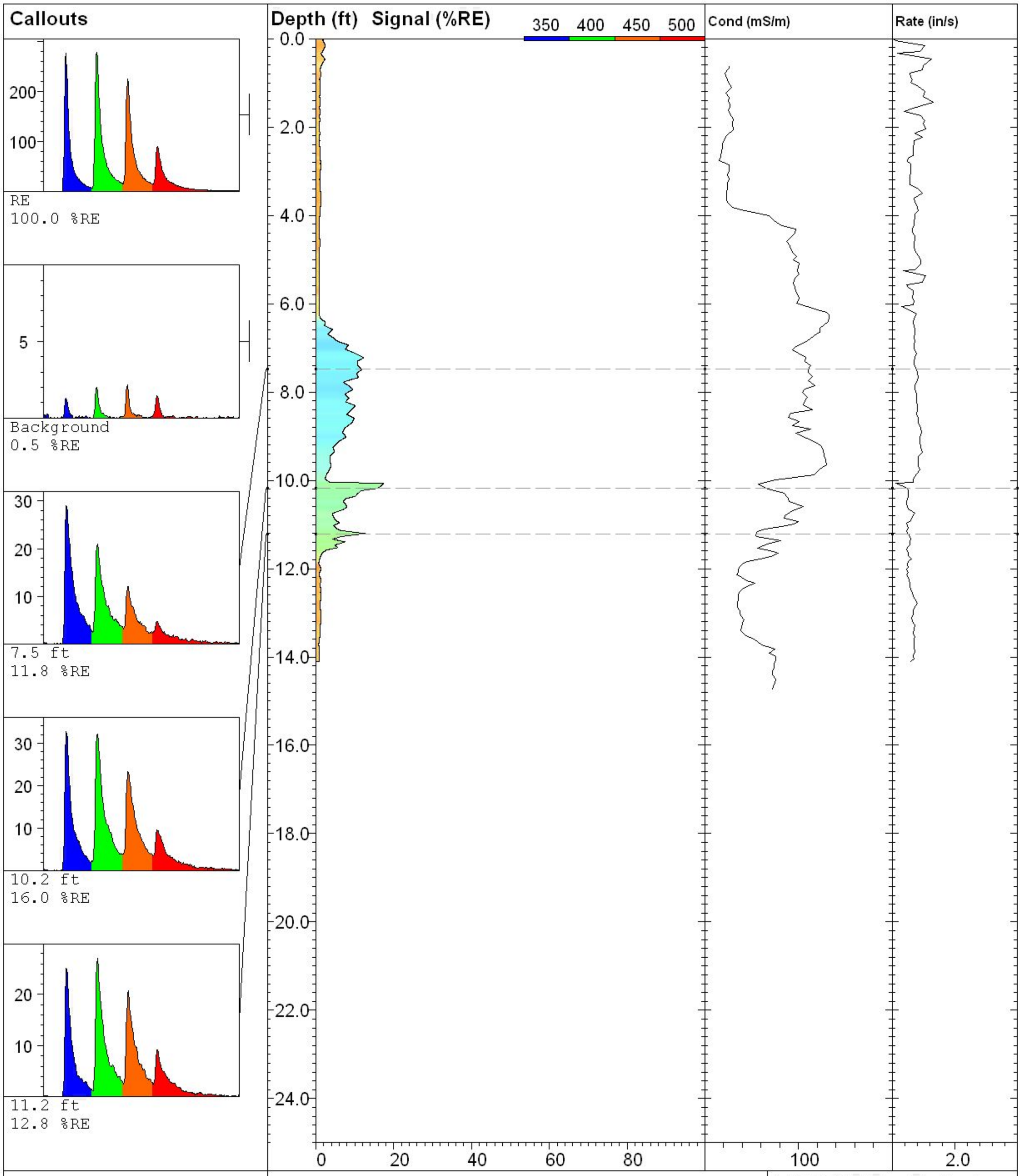


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-22

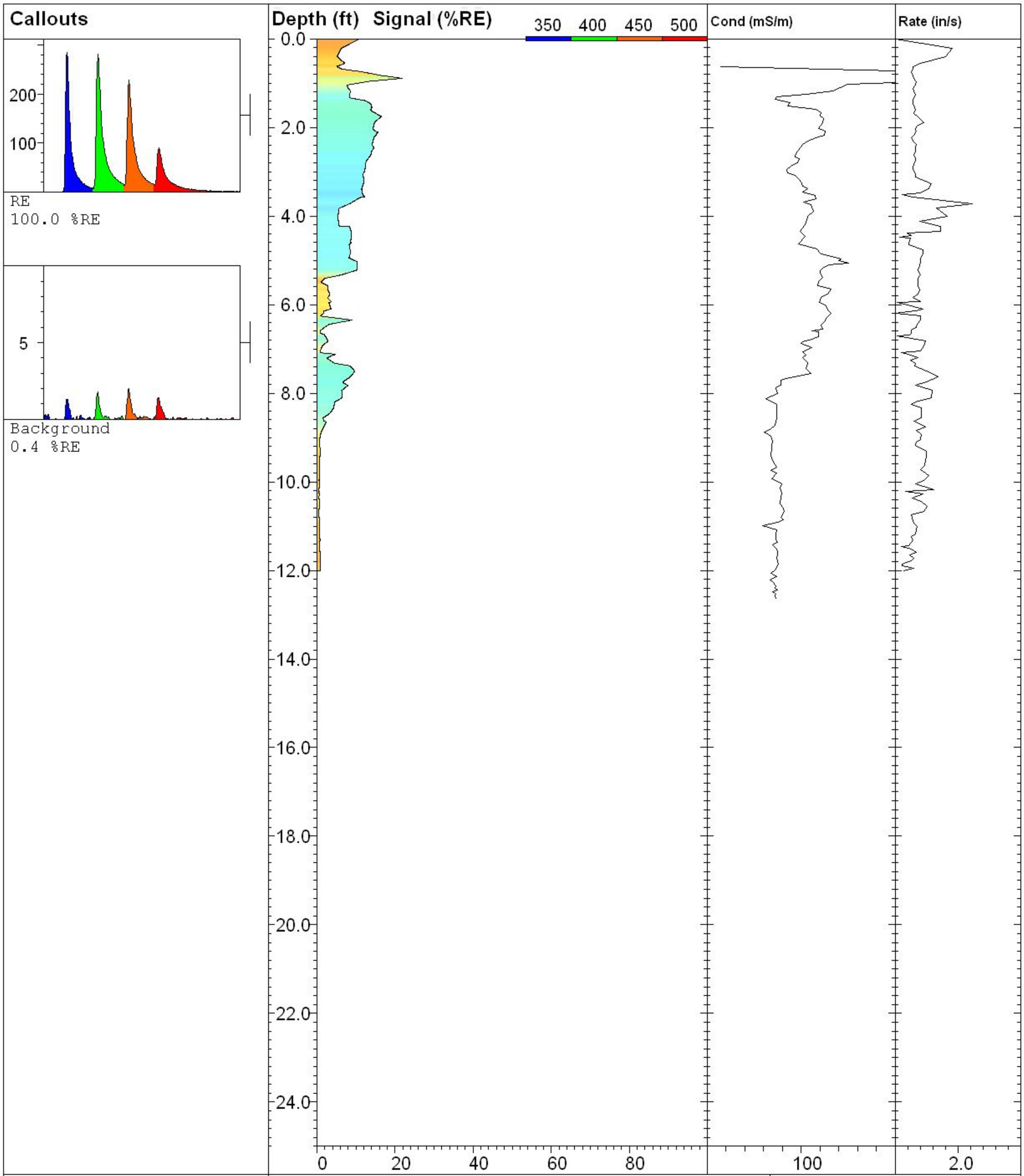
UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **11.05 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **4.4 % @ 7.81 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 14:59 CDT**



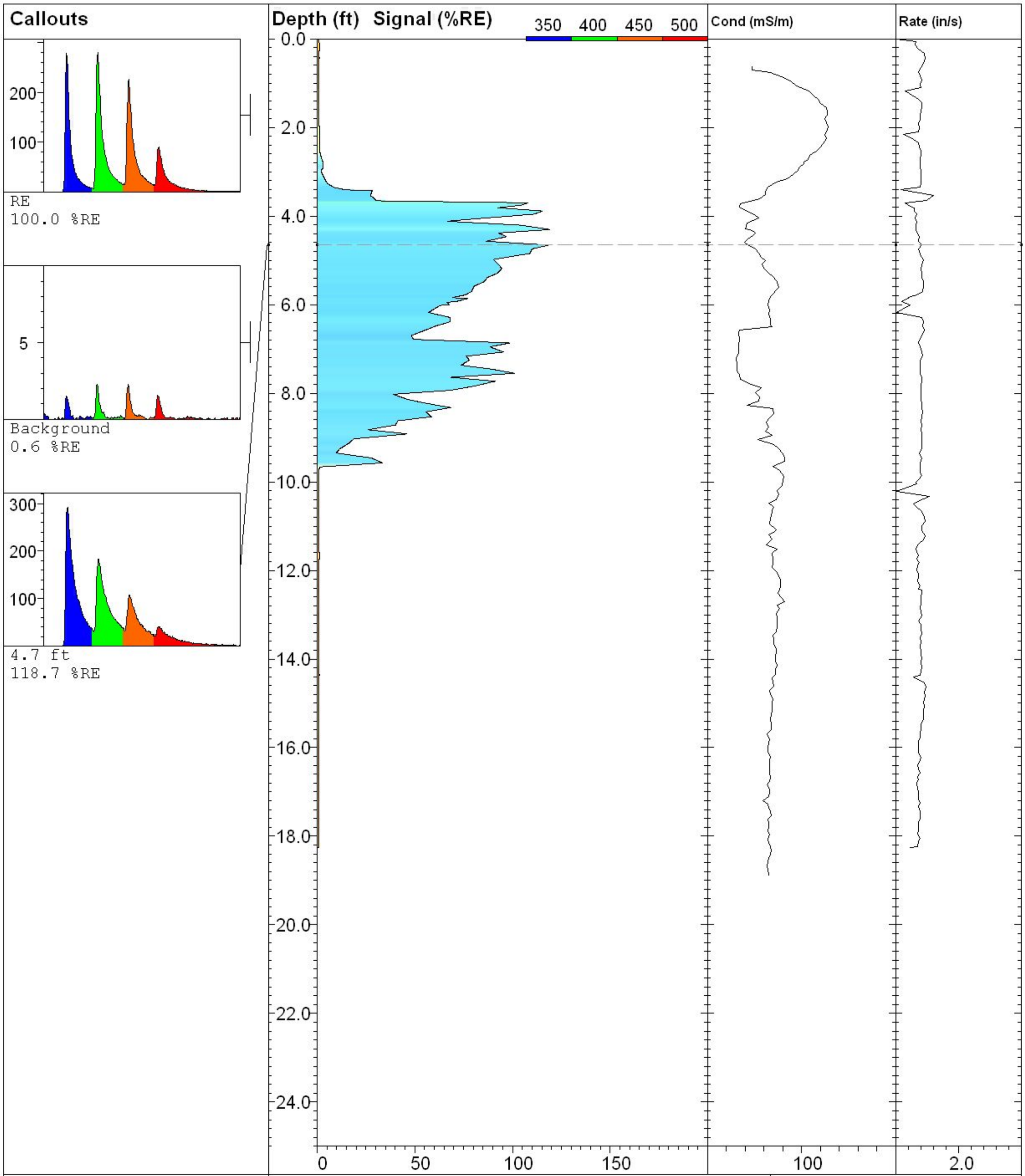
LIF-23		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **14.10 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **17.4 % @ 10.07 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 15:19 CDT**

MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

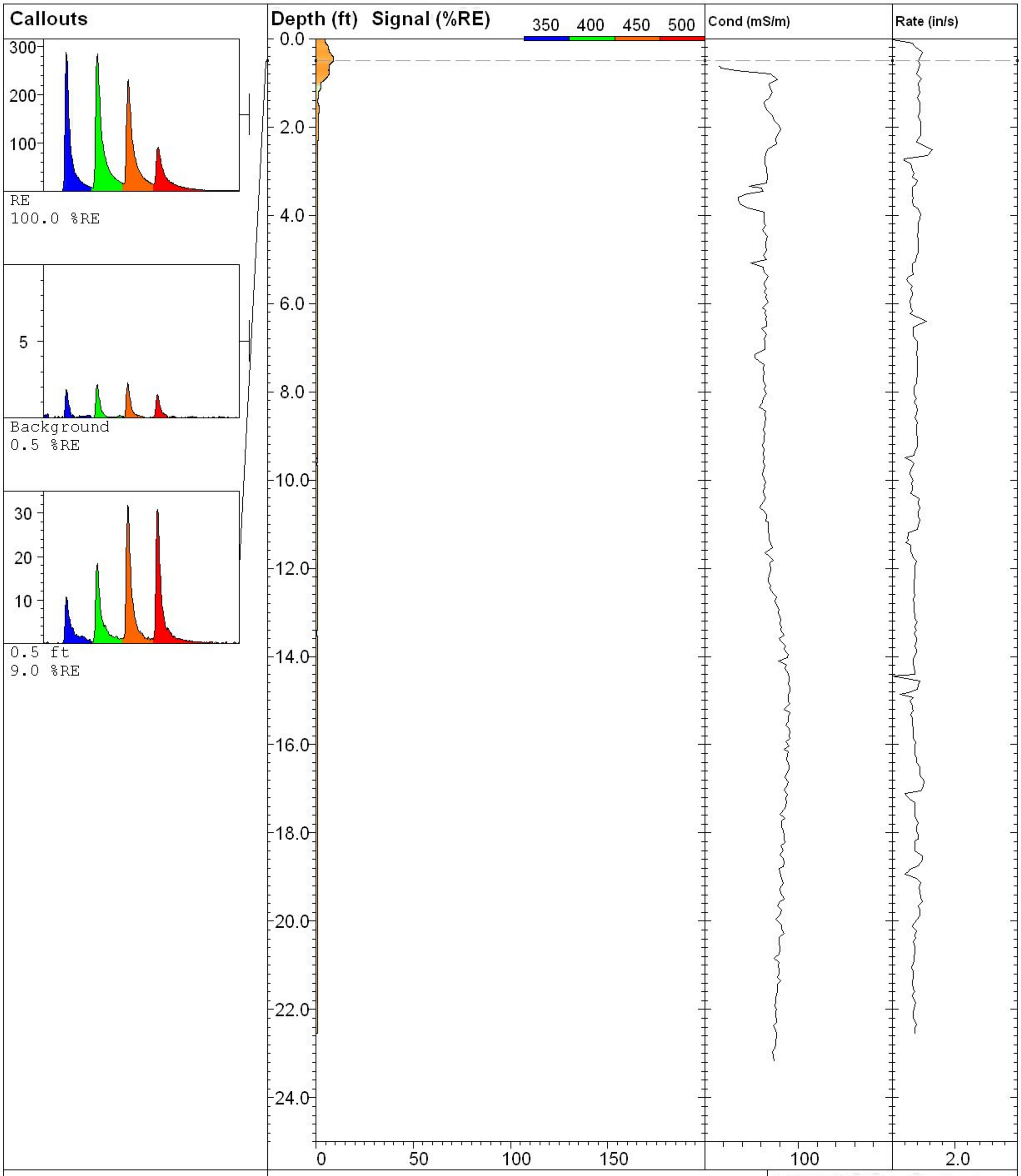


MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-24**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.01 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **21.9 % @ 0.89 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 15:42 CDT**

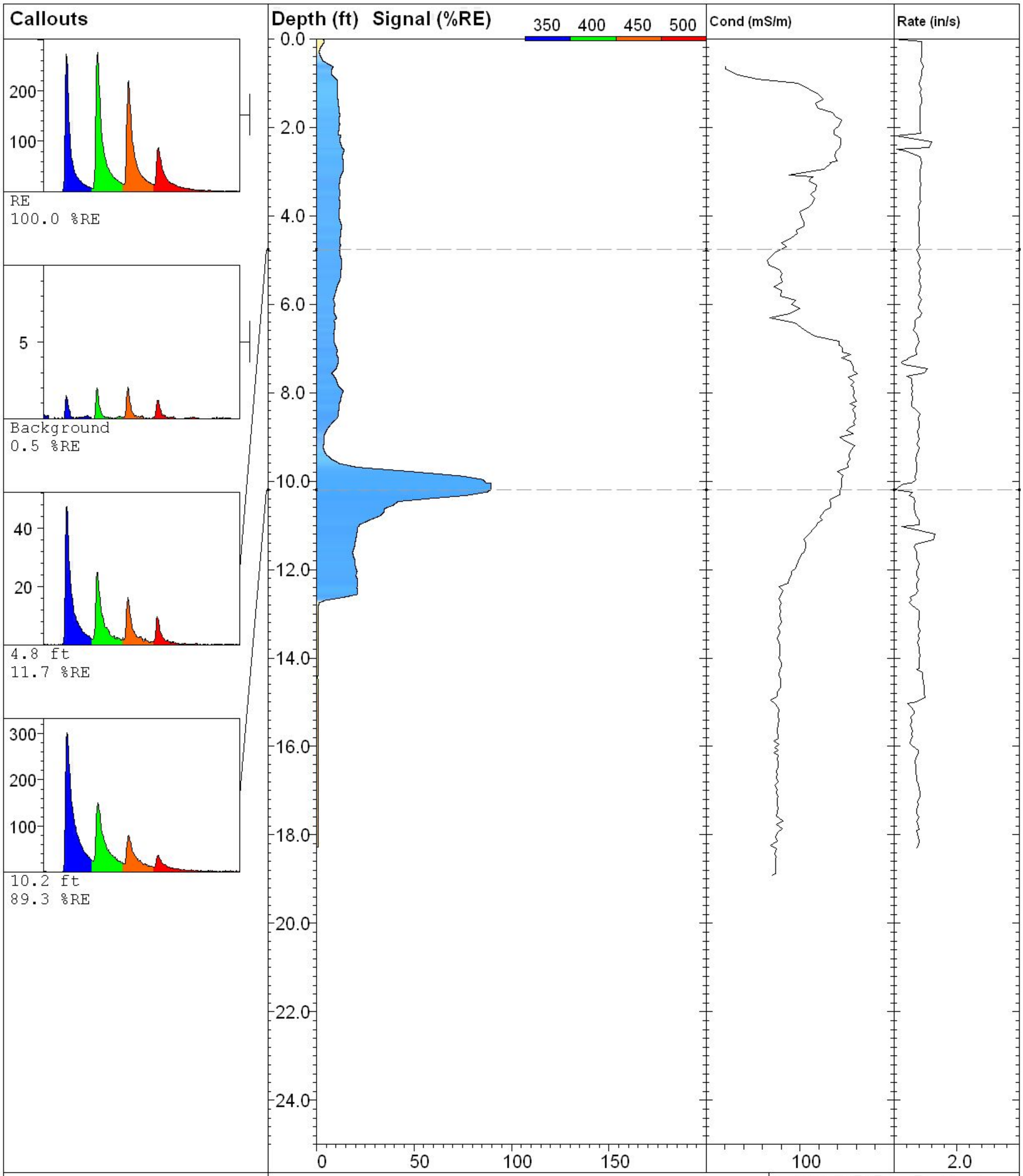
UVOST LOGS
@ 200% RE



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-01 (MIP-16A)**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **18.25 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **119.4 % @ 4.31 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-24 15:15 PDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-02 (MIP-03)**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **22.53 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **9.0 % @ 0.50 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-24 15:54 PDT**

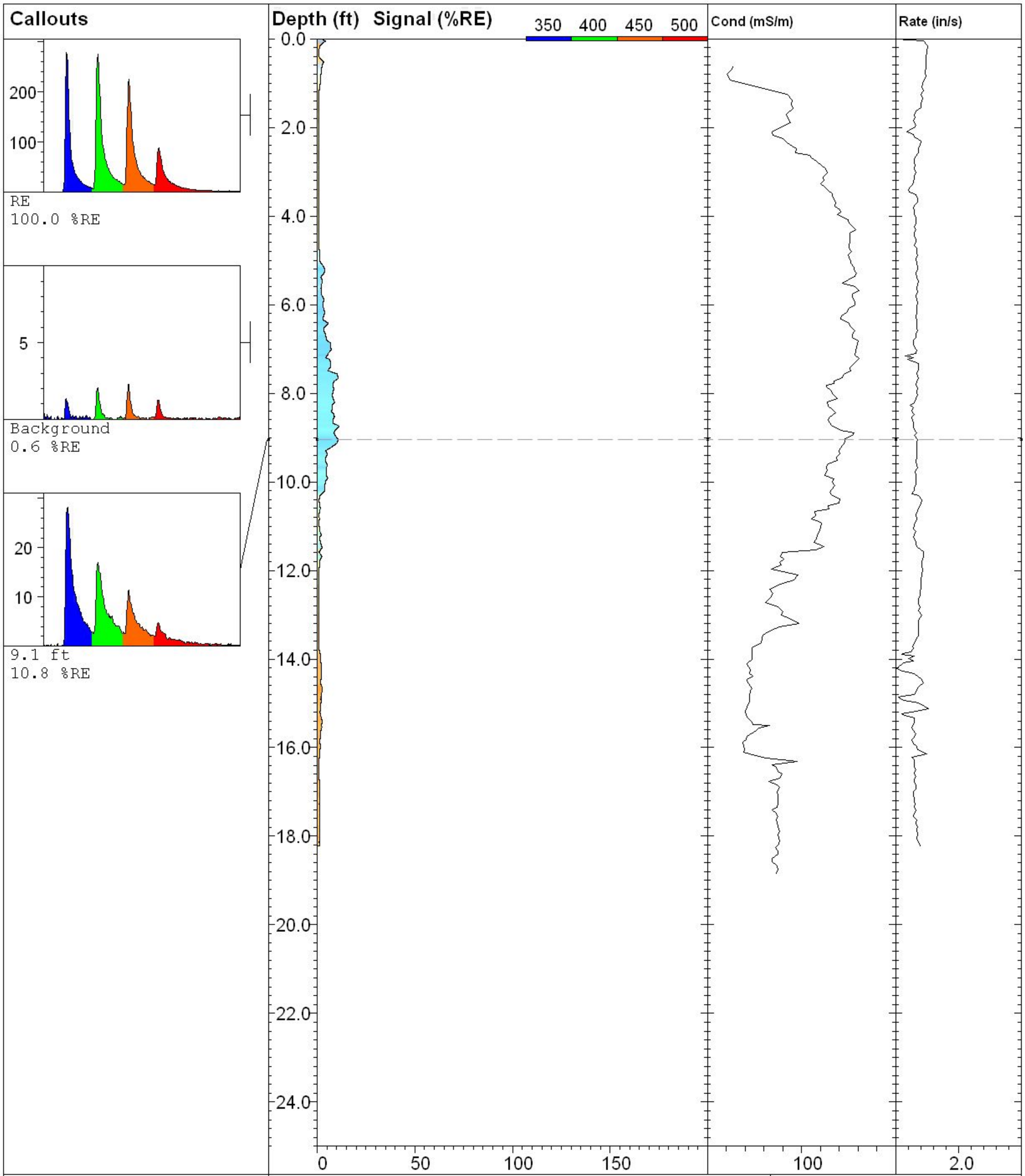


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

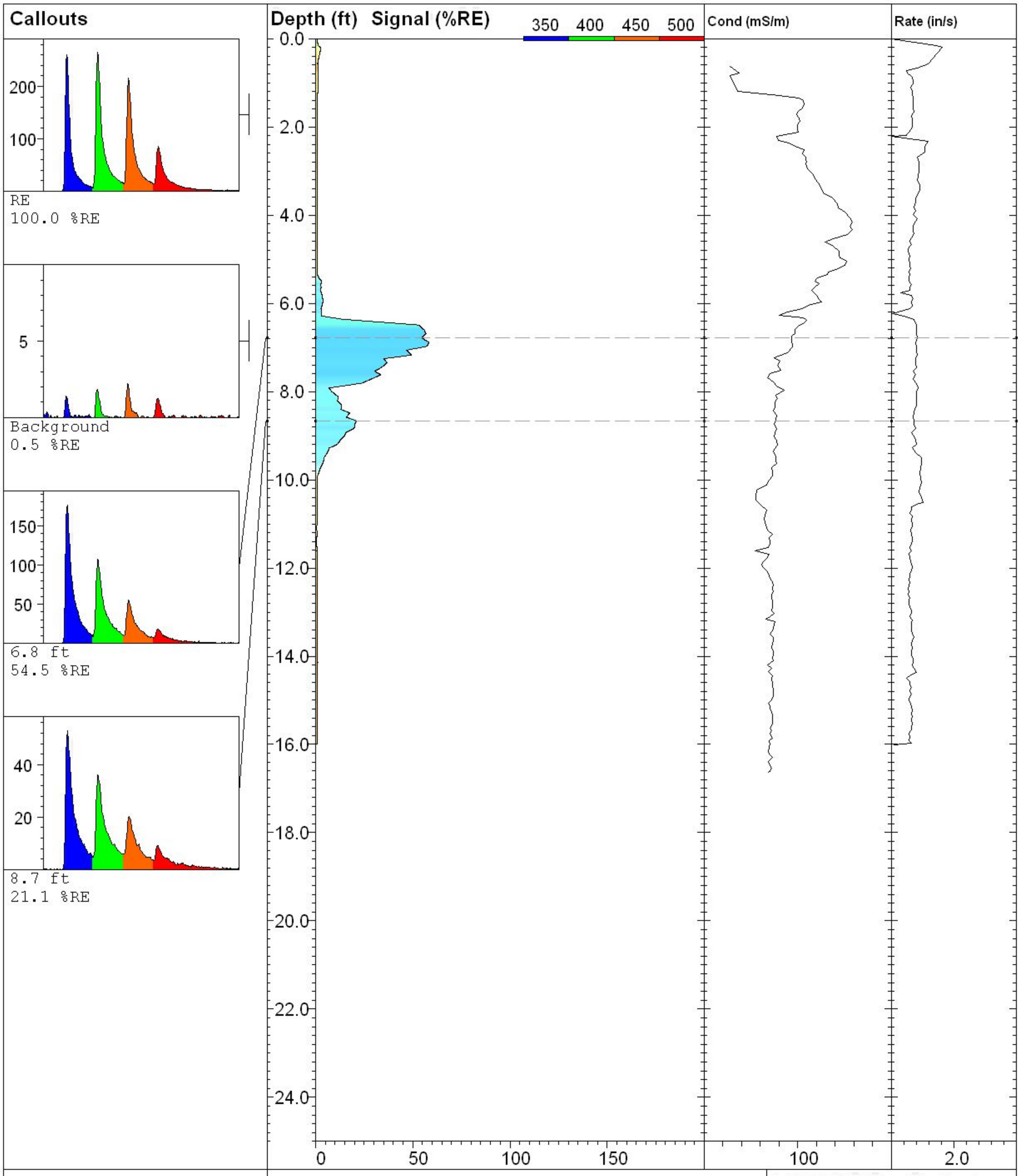
LIF-03 (MIP-32)

UVOST By Dakota
www.DakotaTechnologies.com

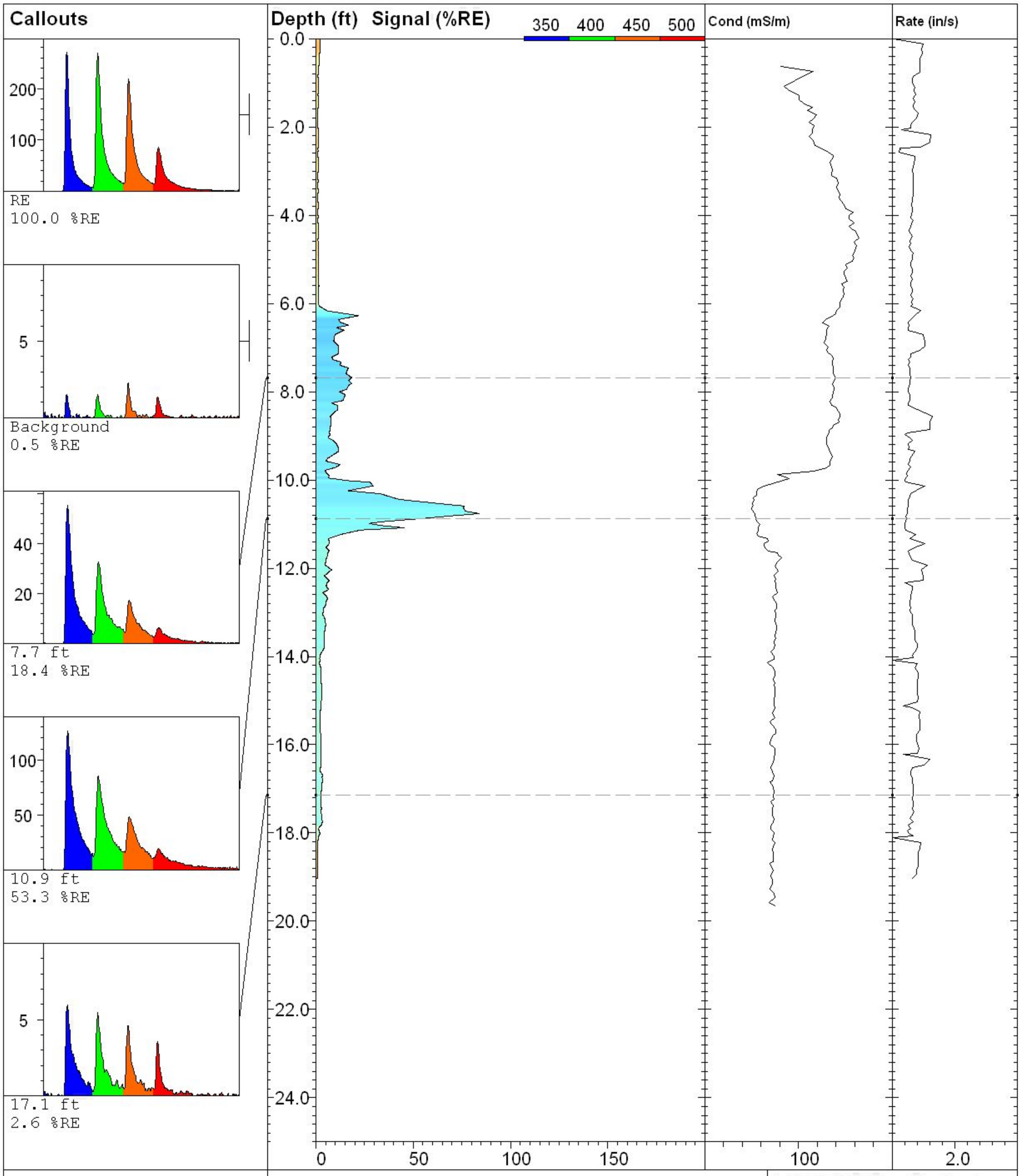
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **18.29 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **89.7 % @ 10.06 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-24 18:47 PDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-04**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **18.22 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **11.2 % @ 8.74 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 07:45 CDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-05**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **16.00 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **58.4 % @ 6.89 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 08:09 CDT**

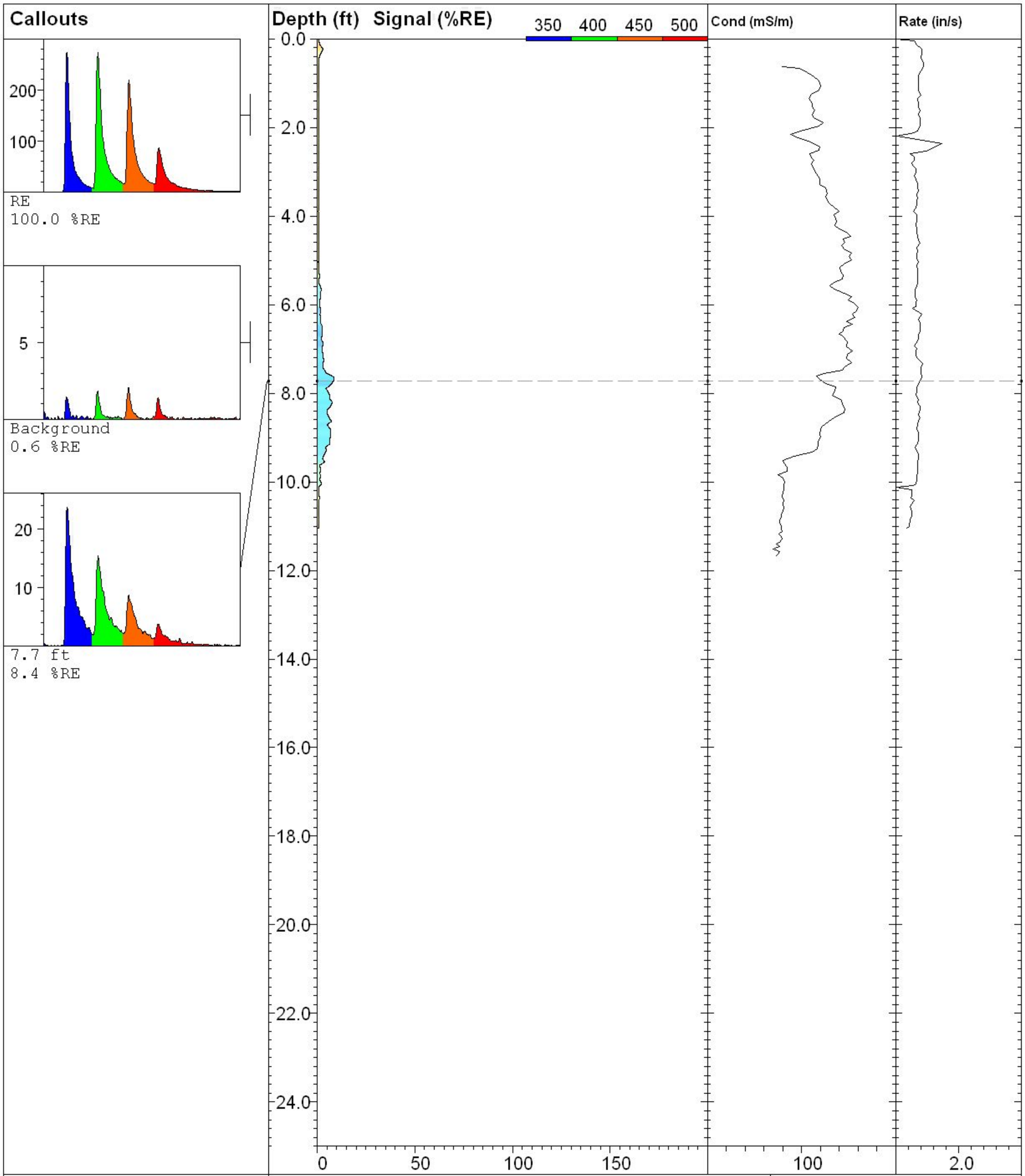


LIF-06

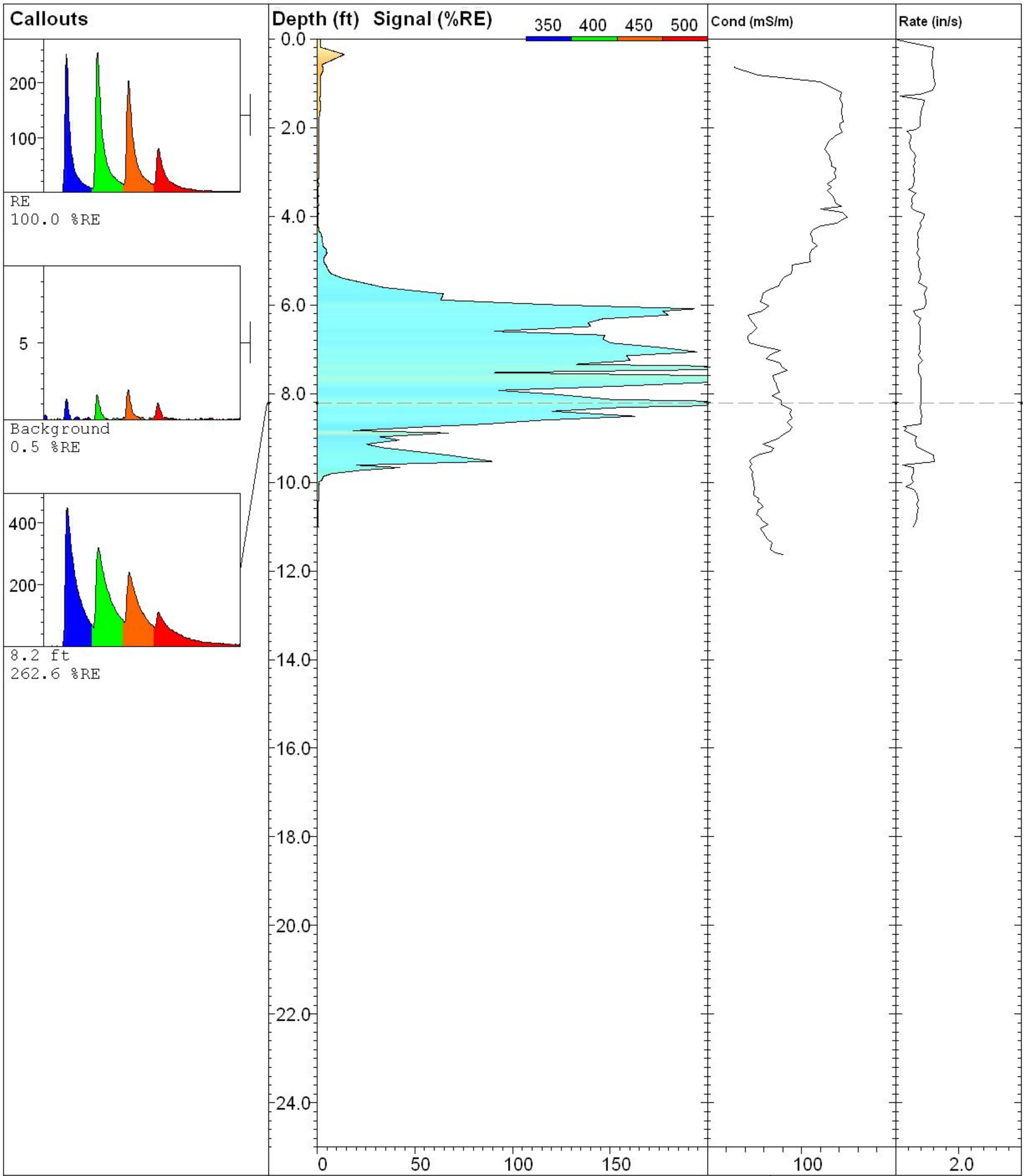
UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **19.03 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **84.1 % @ 10.76 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 08:30 CDT**

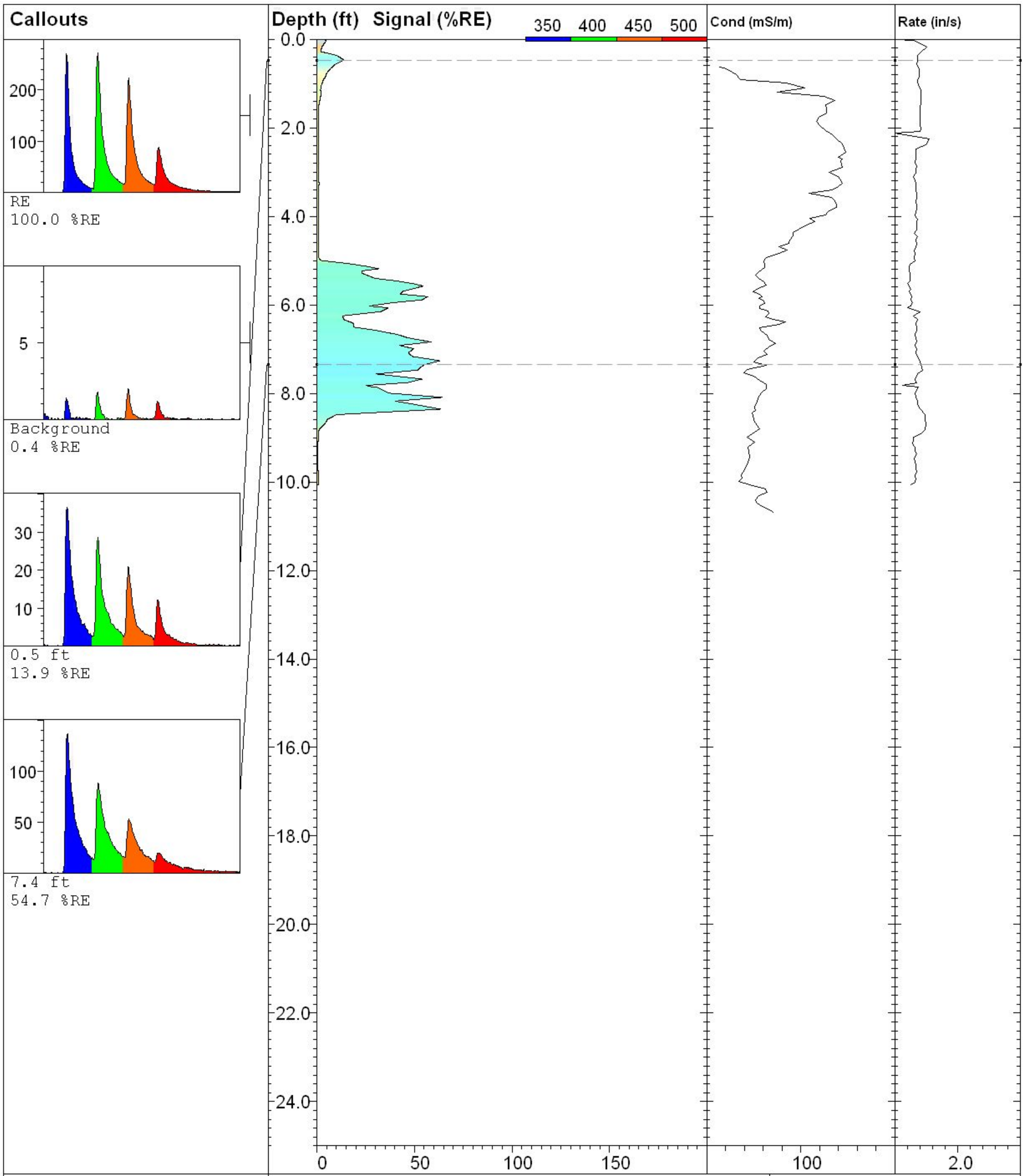
MATRIX ENVIRONMENTAL LLC
www.matrixenv.com



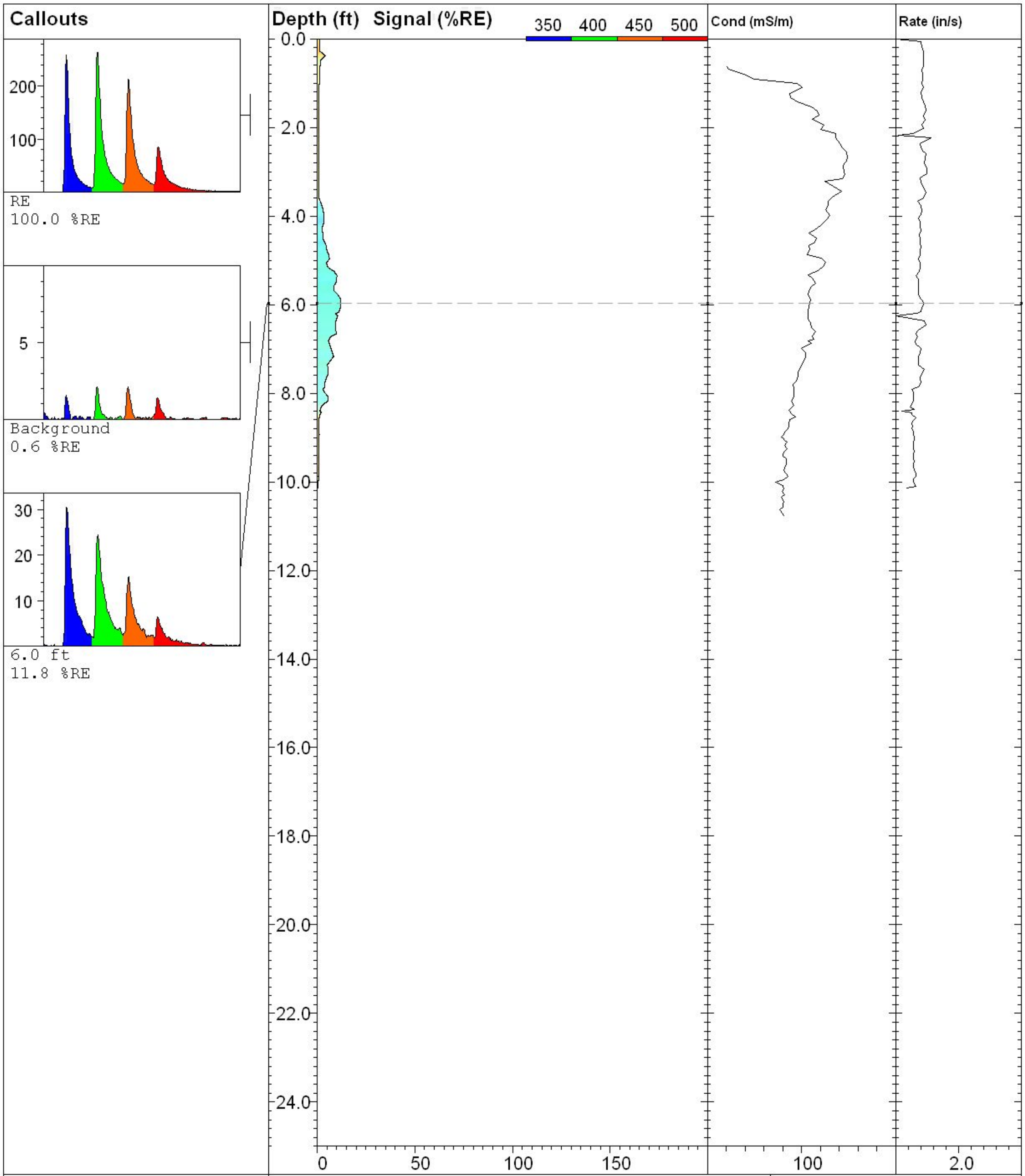
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-07**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **11.05 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **8.4 % @ 7.72 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 08:58 CDT**



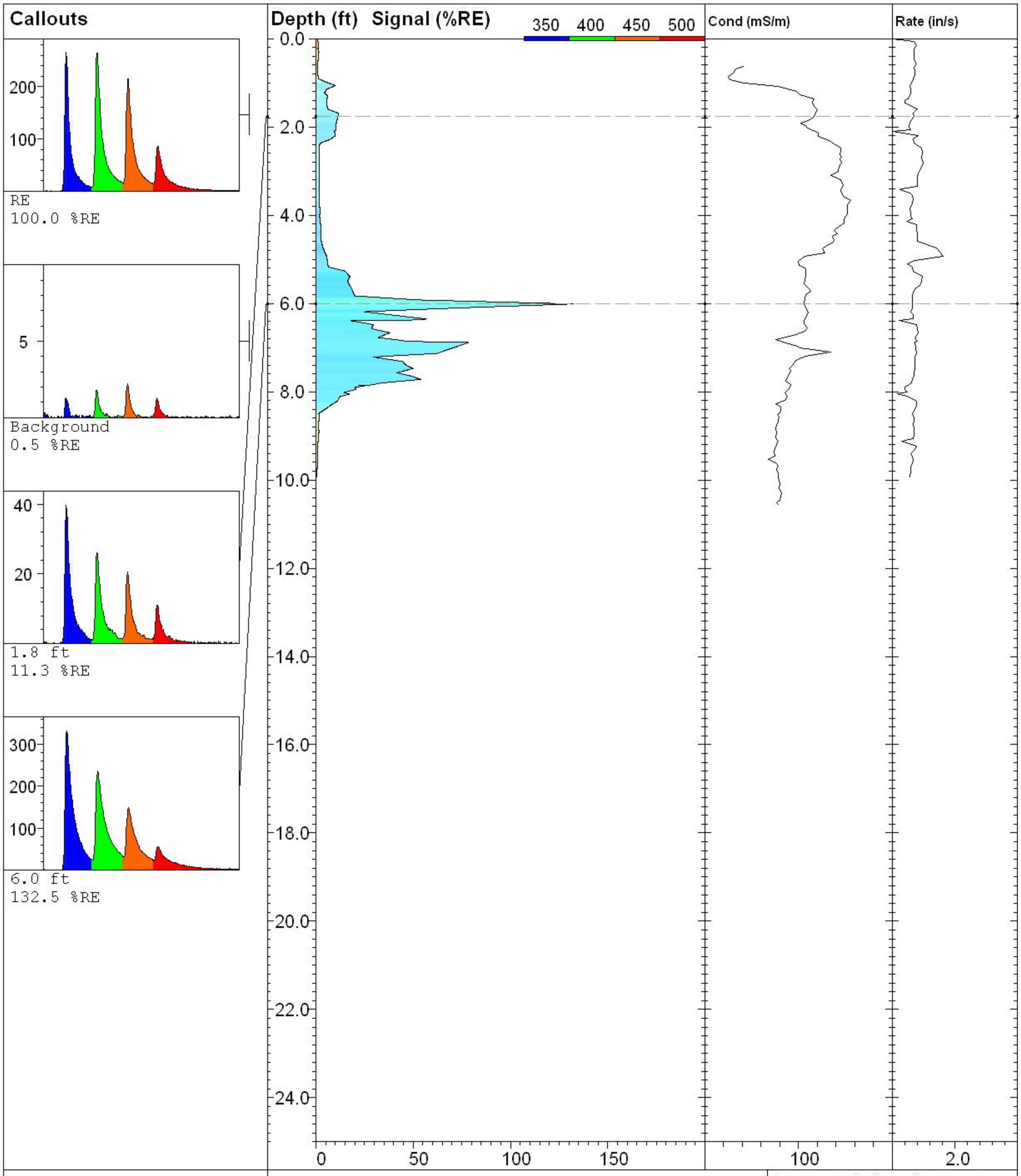
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-08**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **11.01 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **266.5 % @ 7.42 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 09:17 CDT**



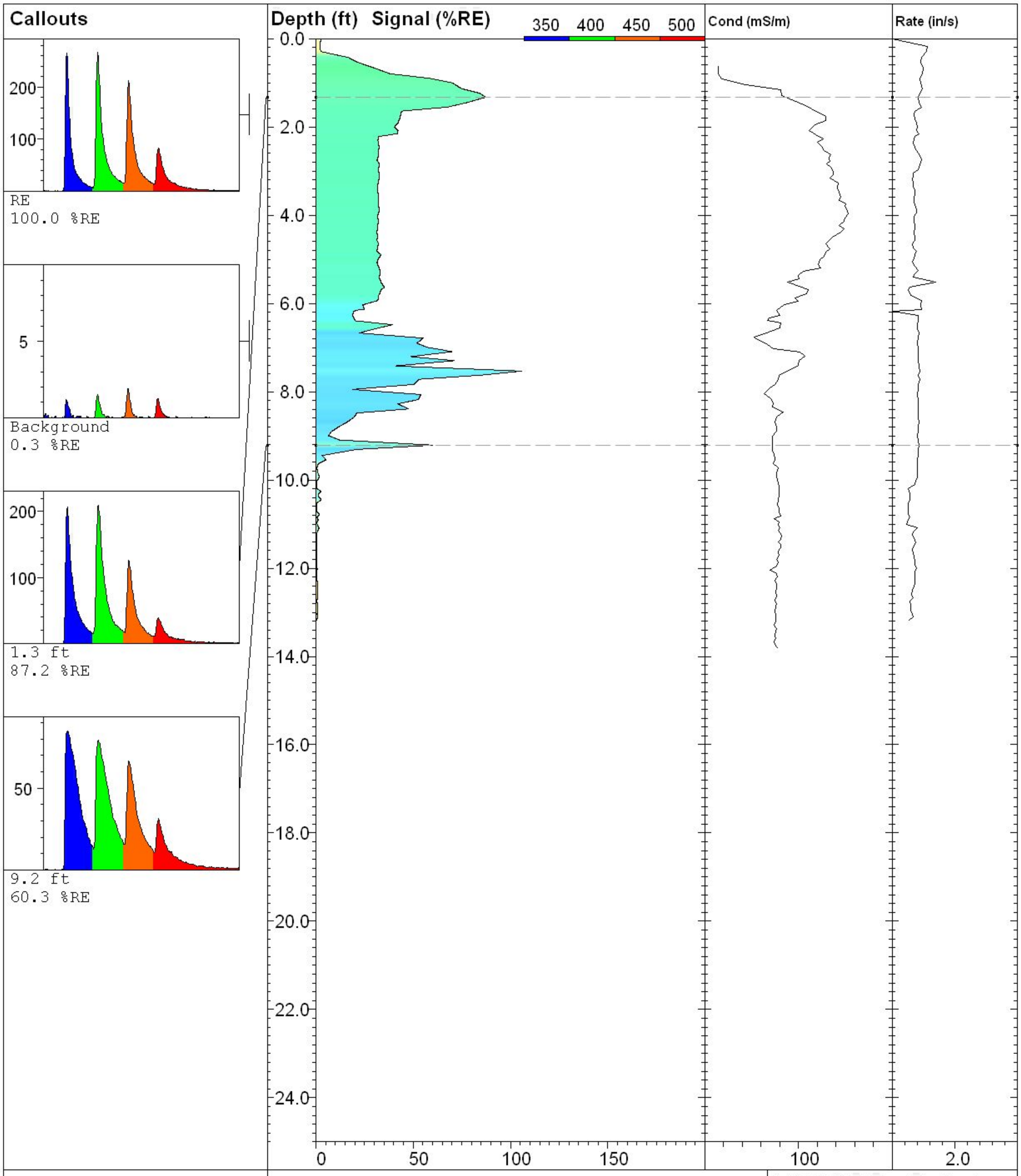
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-09**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.07 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **64.4 % @ 8.09 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 09:36 CDT**



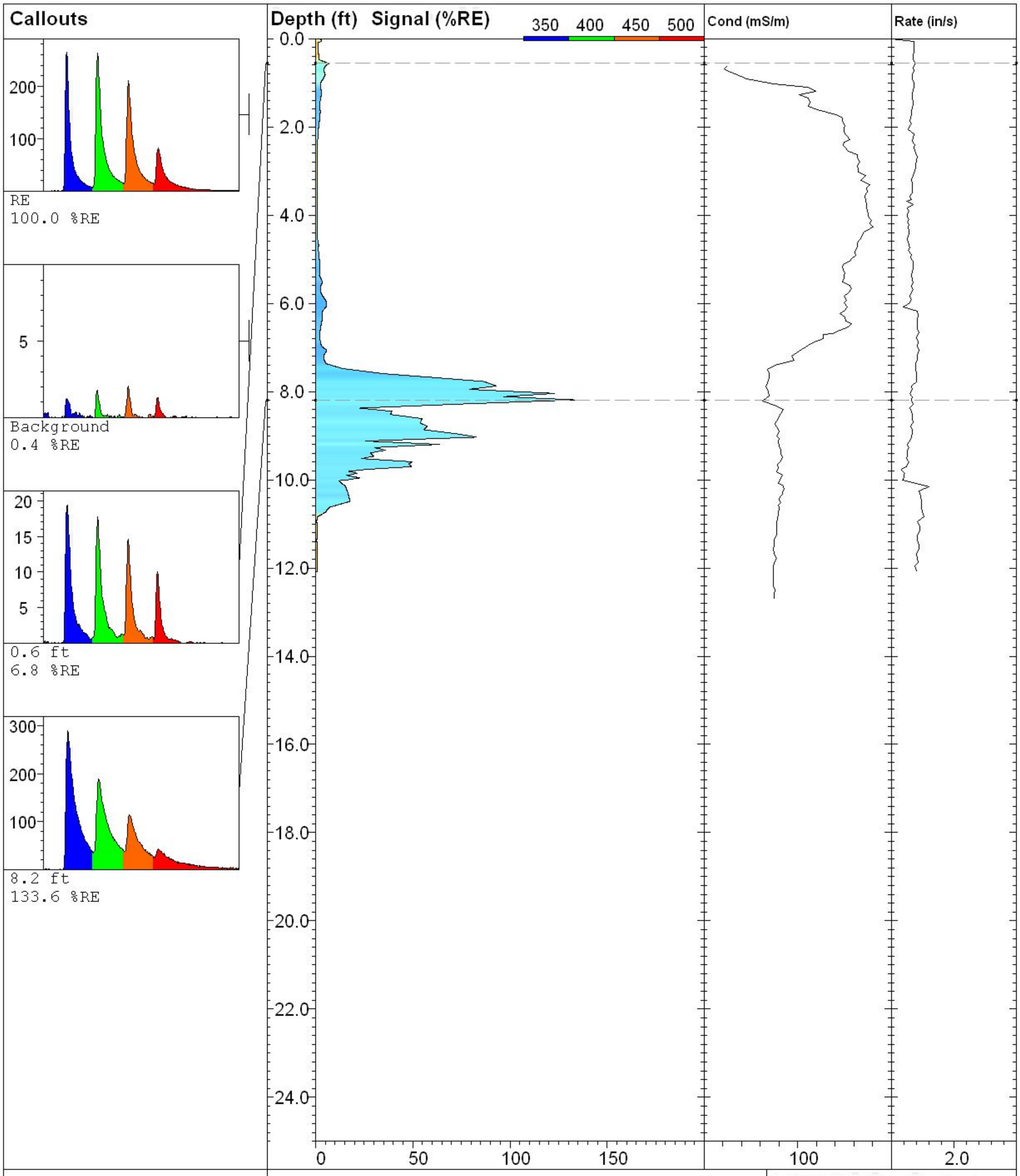
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-10**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.14 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **12.1 % @ 5.89 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 09:55 CDT**



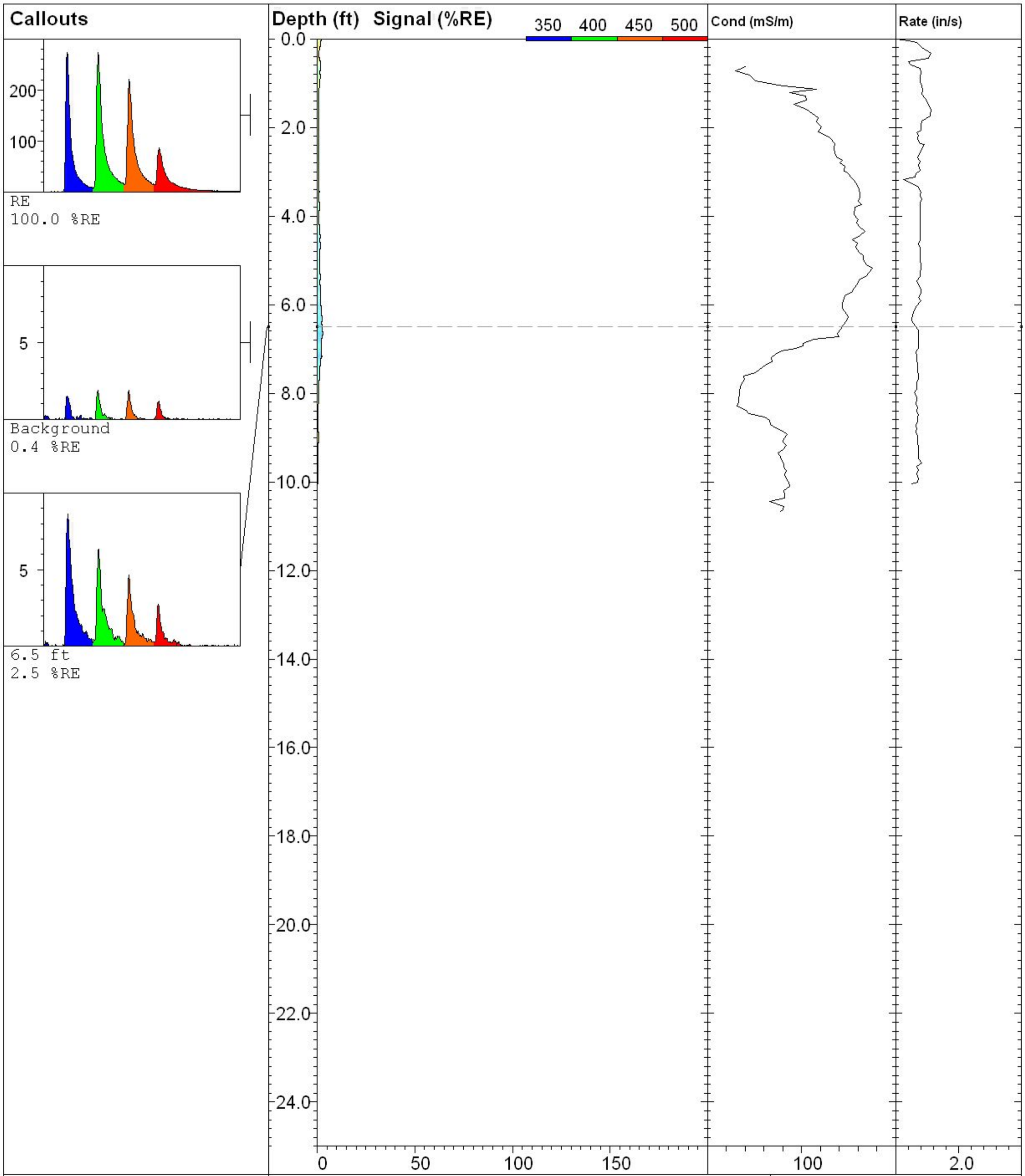
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-11**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **9.93 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **132.5 % @ 6.01 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 10:10 CDT**



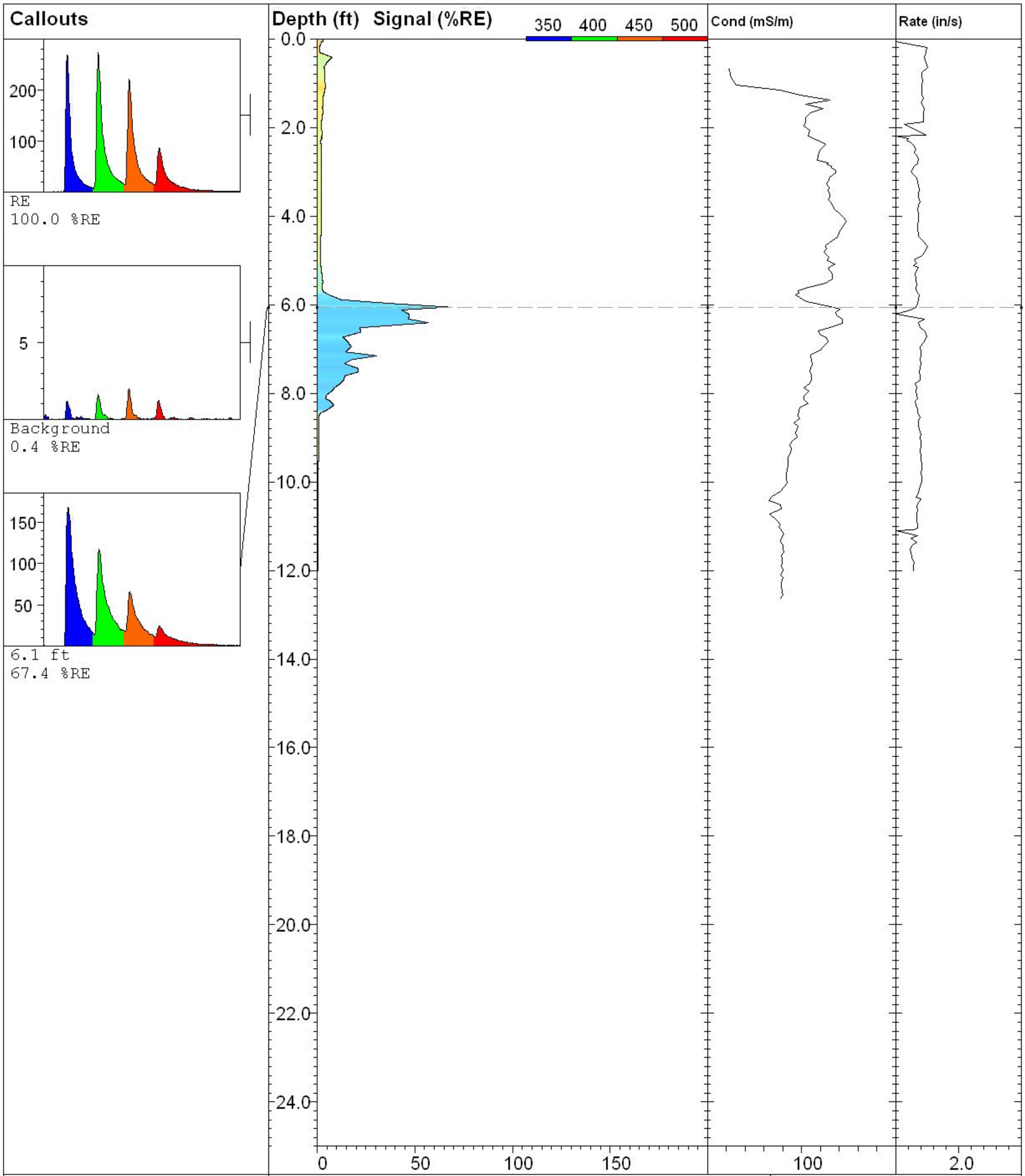
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-12**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **13.18 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **106.0 % @ 7.53 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 10:27 CDT**



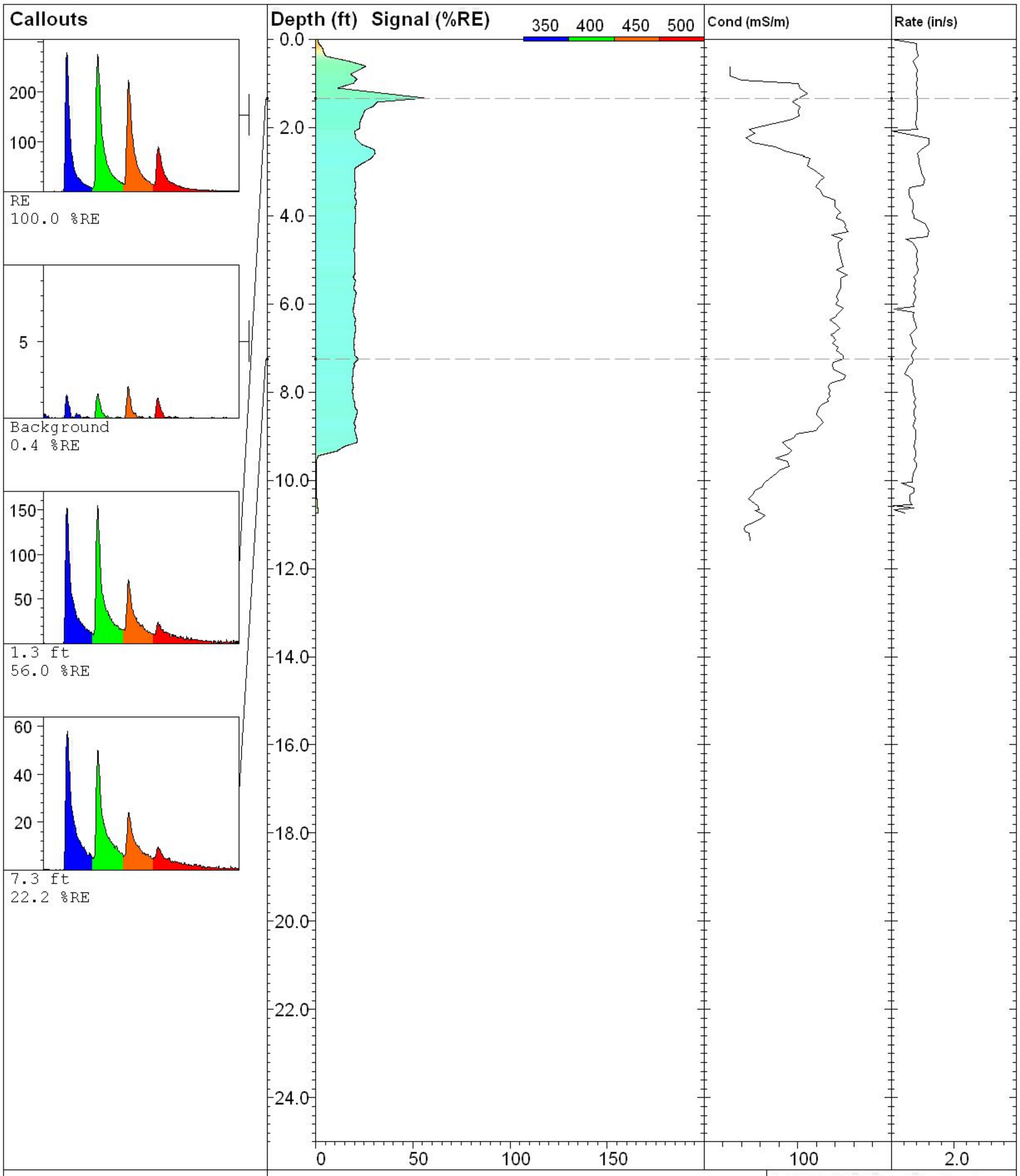
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-13**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.09 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **133.6 % @ 8.19 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 10:45 CDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-14**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.05 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **3.0 % @ 6.66 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 11:03 CDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-15 (MIP-30)**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.02 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **67.4 % @ 6.06 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 11:23 CDT**

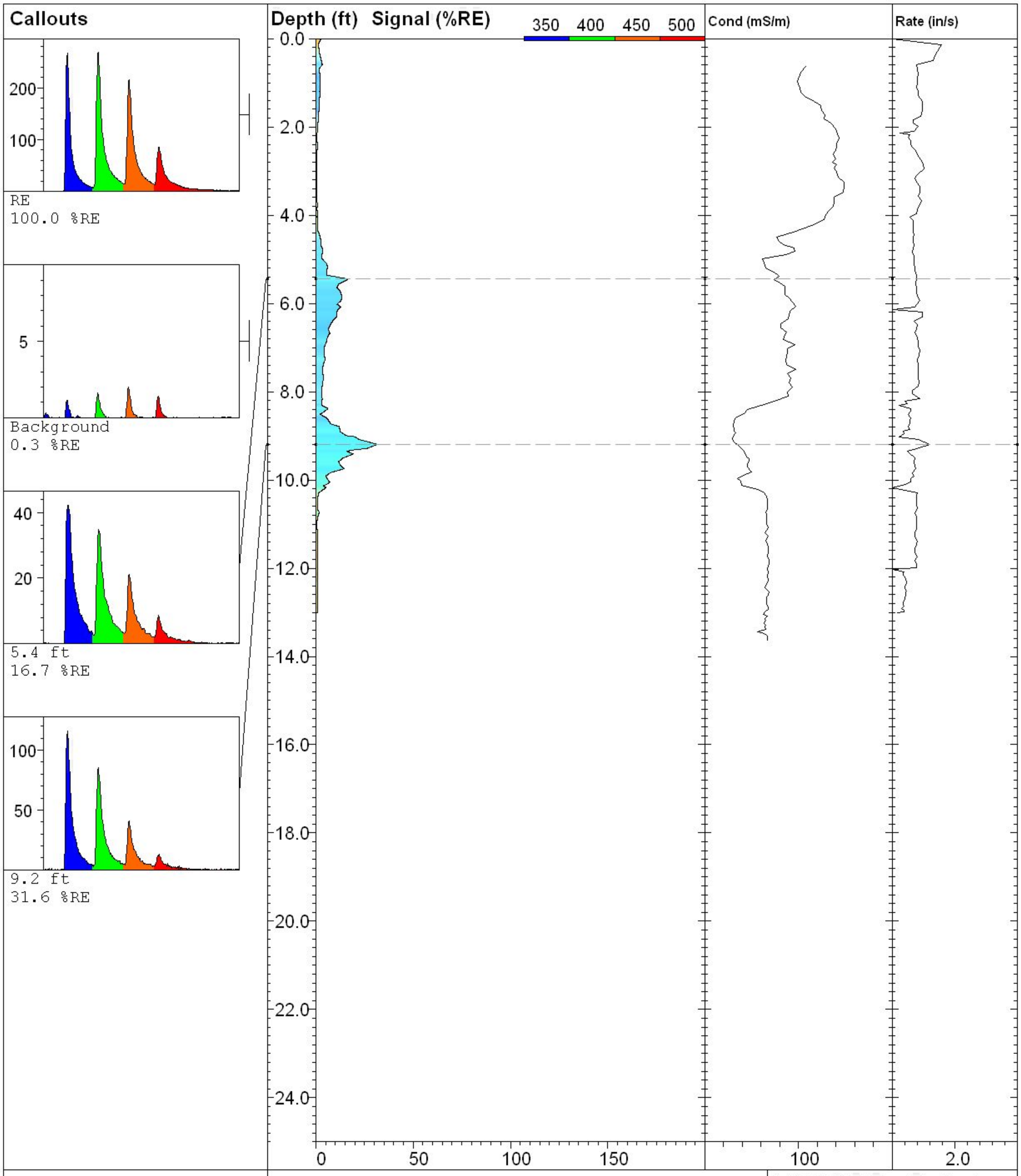


LIF-16 (MIP-23)

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.74 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **56.0 % @ 1.34 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 11:43 CDT**

MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

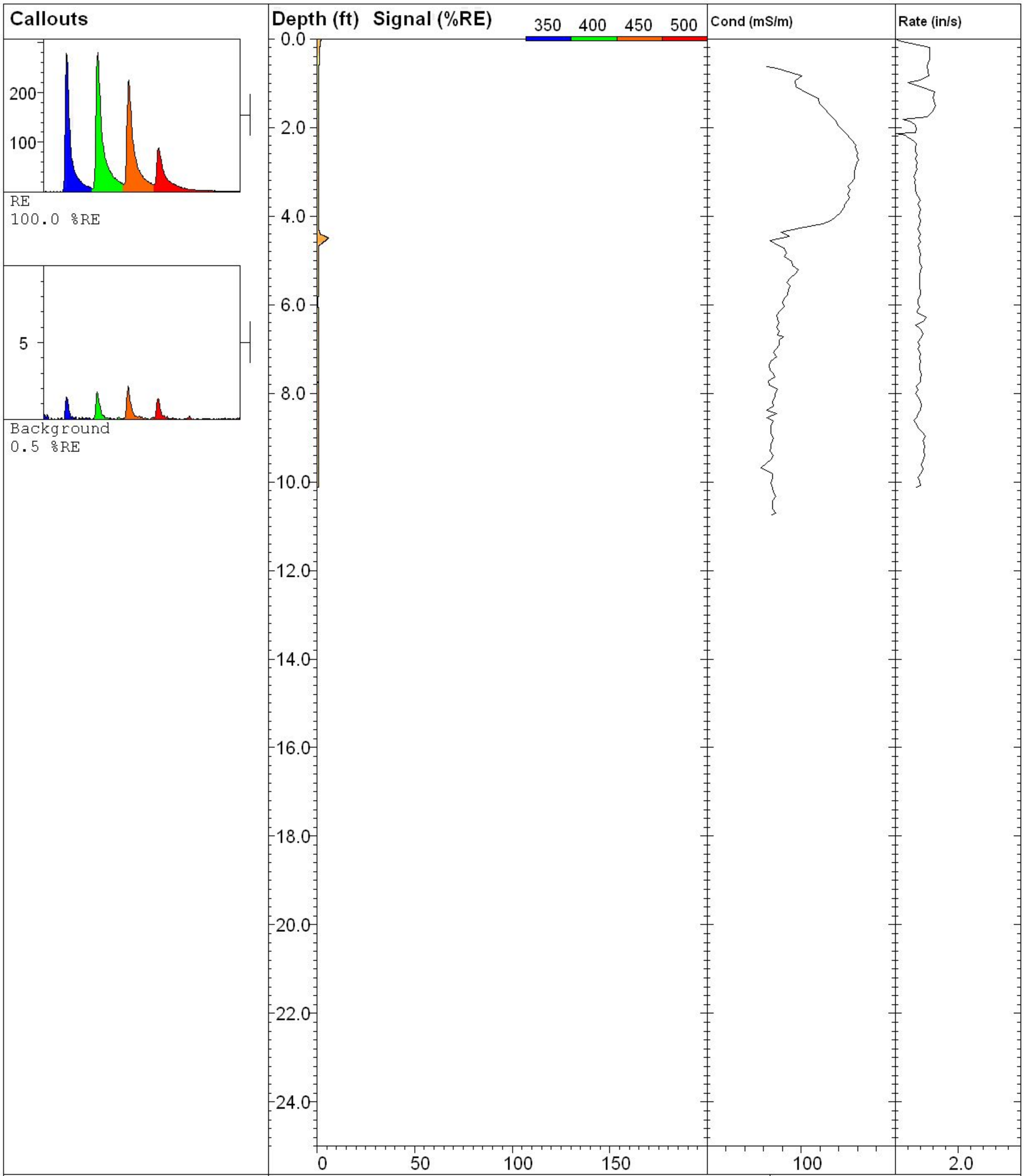


LIF-17 (MIP-05)

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **13.01 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **31.6 % @ 9.19 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 12:04 CDT**

MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

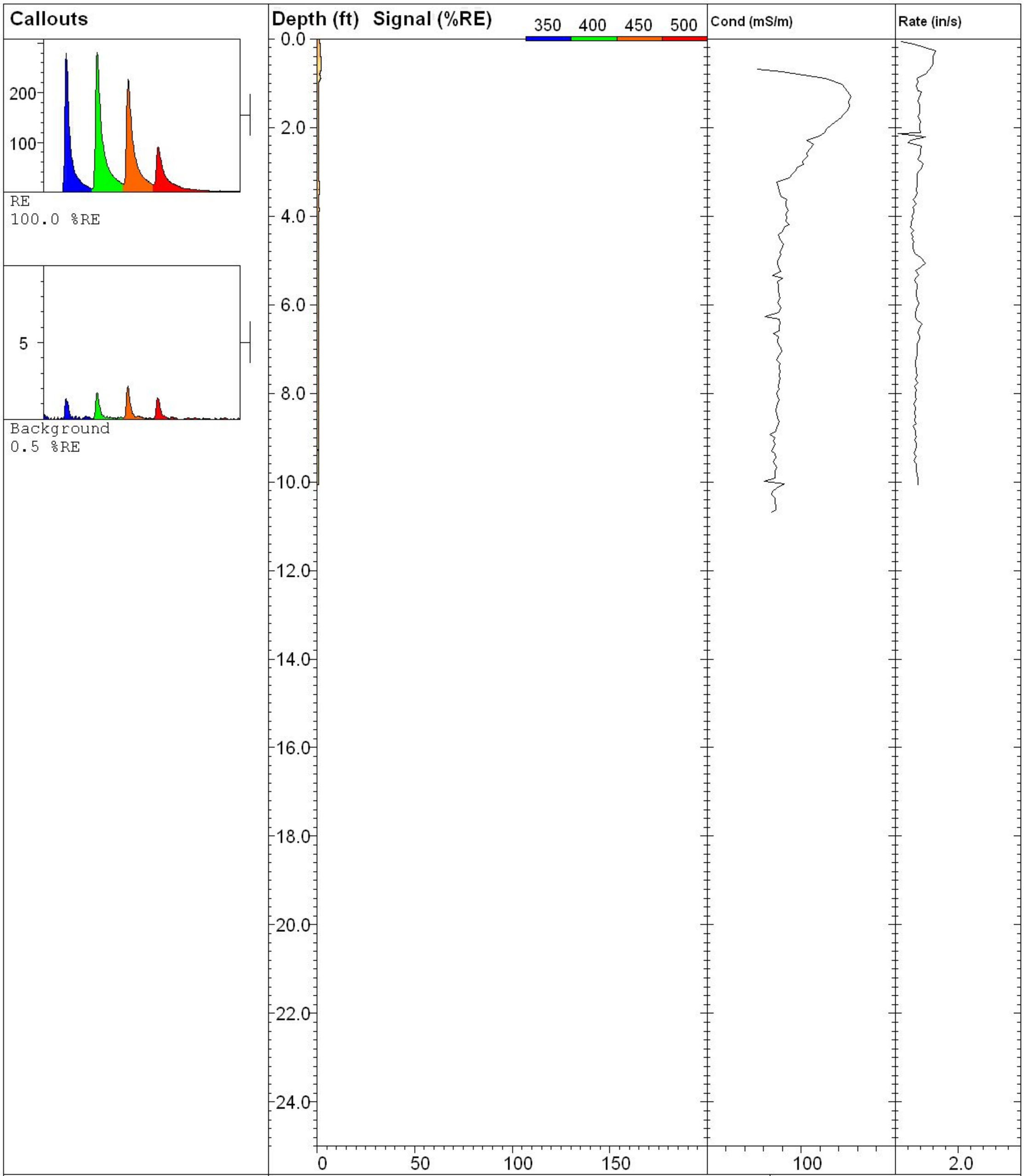


LIF-18 (MIP-20)

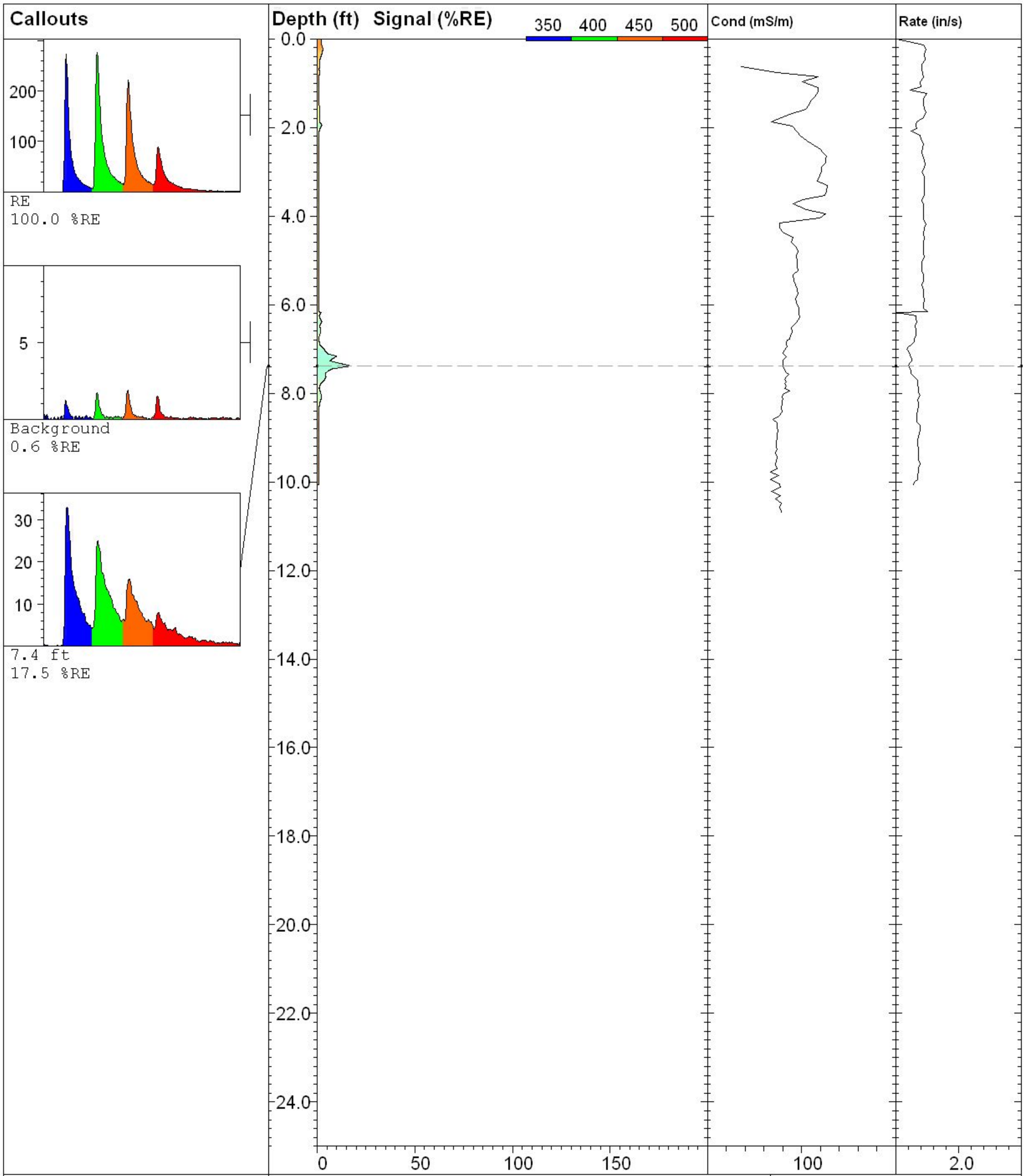
UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.12 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **6.1 % @ 4.50 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 13:40 CDT**

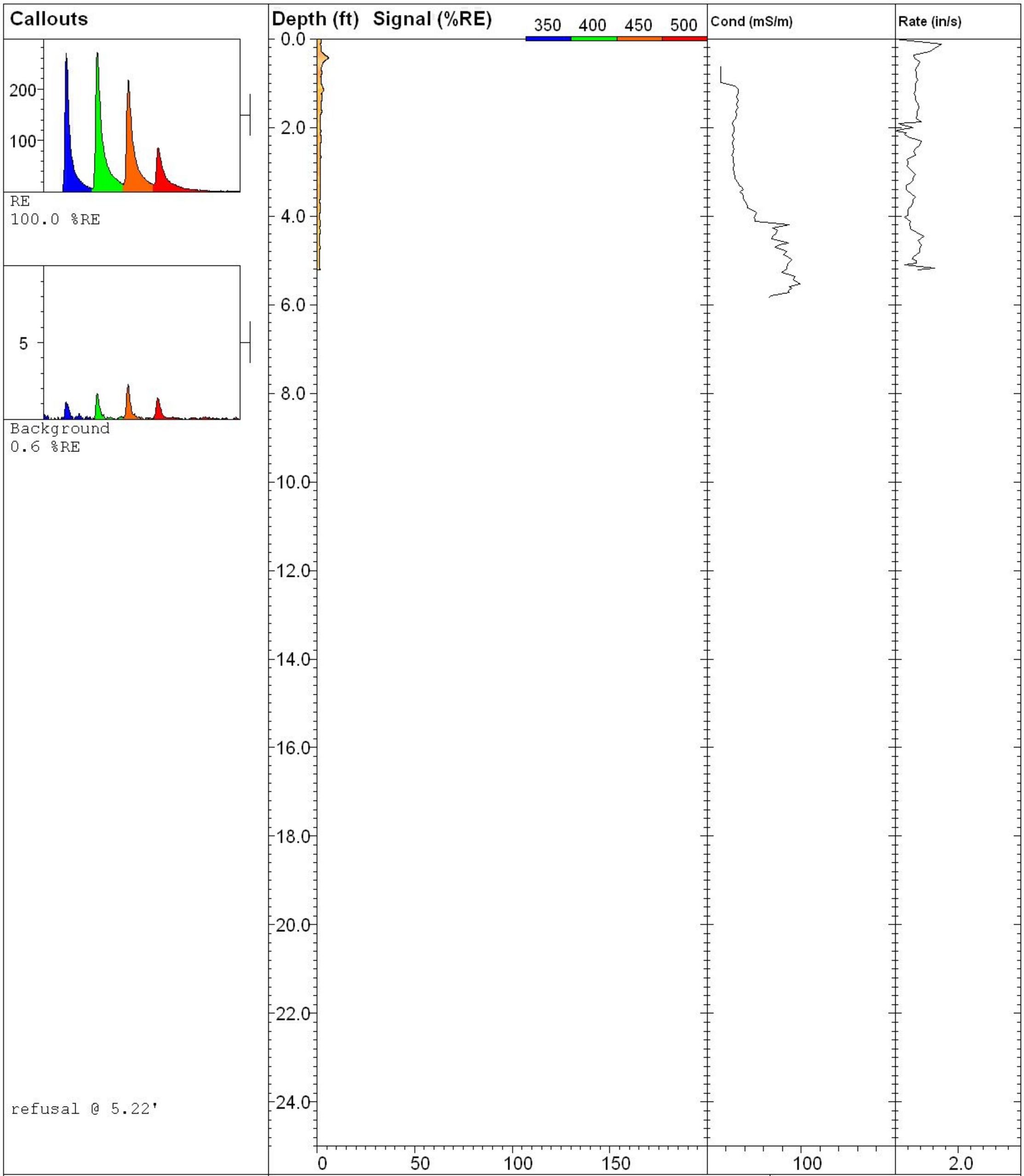
MATRIX ENVIRONMENTAL LLC
www.matrixenv.com



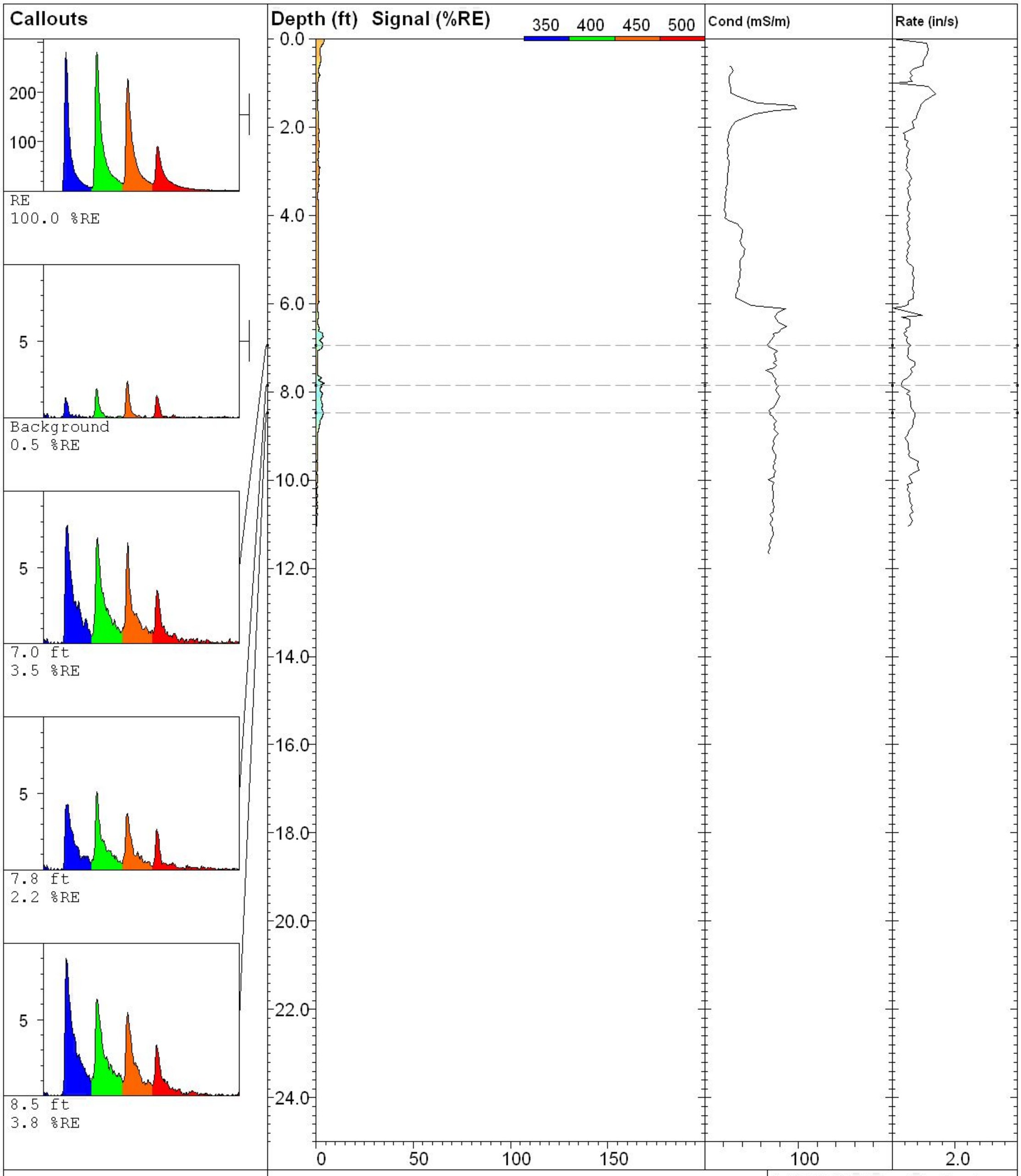
MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-19**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.06 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **2.2 % @ 0.69 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 14:01 CDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-20**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **10.07 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **17.5 % @ 7.39 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 14:24 CDT**



MATRIX ENVIRONMENTAL LLC www.matrixenv.com	**LIF-21**		**UVOST By Dakota** www.DakotaTechnologies.com
	Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **5.22 ft**
	Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **6.2 % @ 0.43 ft**
	Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 14:41 CDT**



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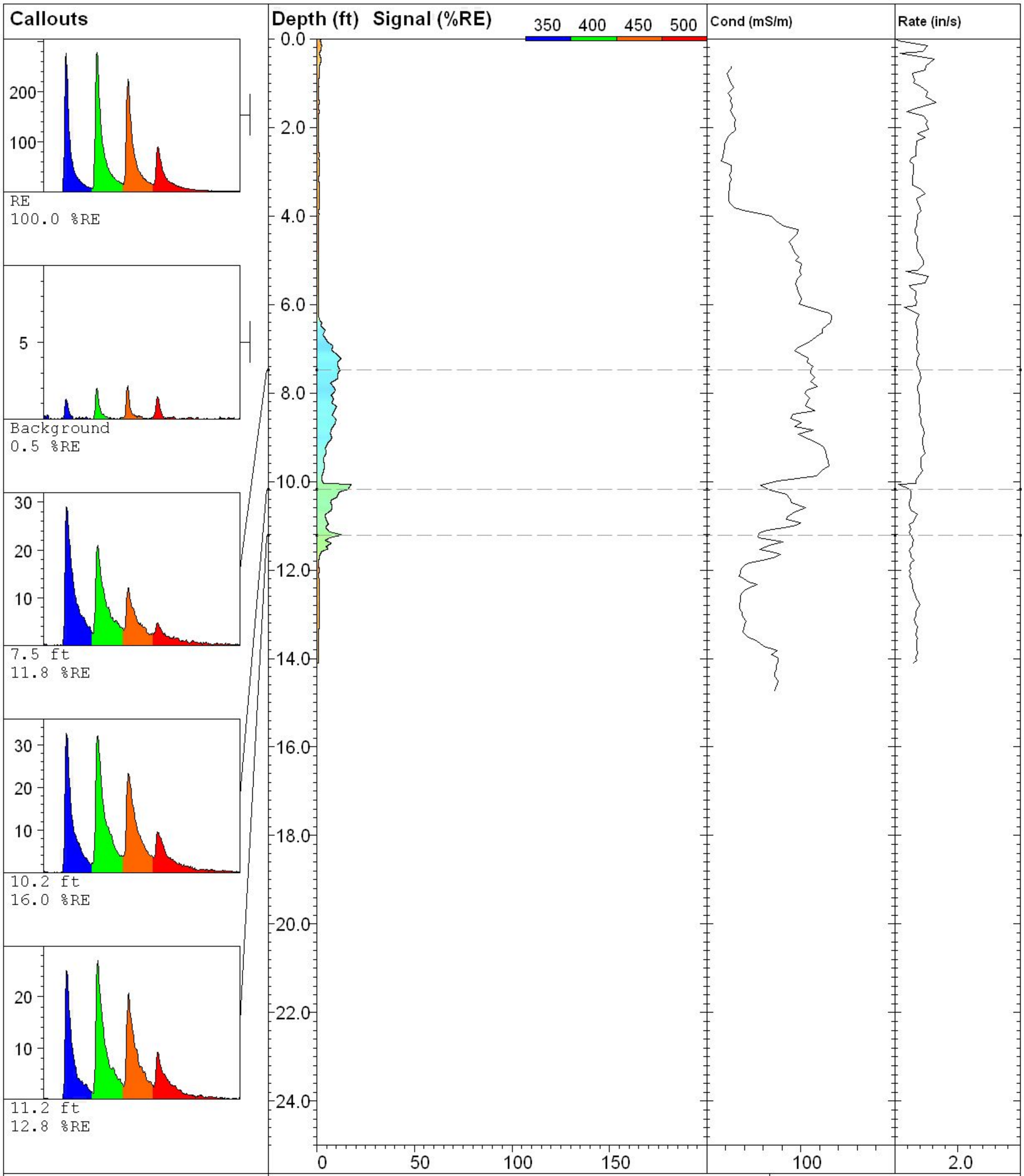
LIF-22

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **11.05 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **4.4 % @ 7.81 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 14:59 CDT**



LIF-23		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **14.10 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **17.4 % @ 10.07 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 15:19 CDT**

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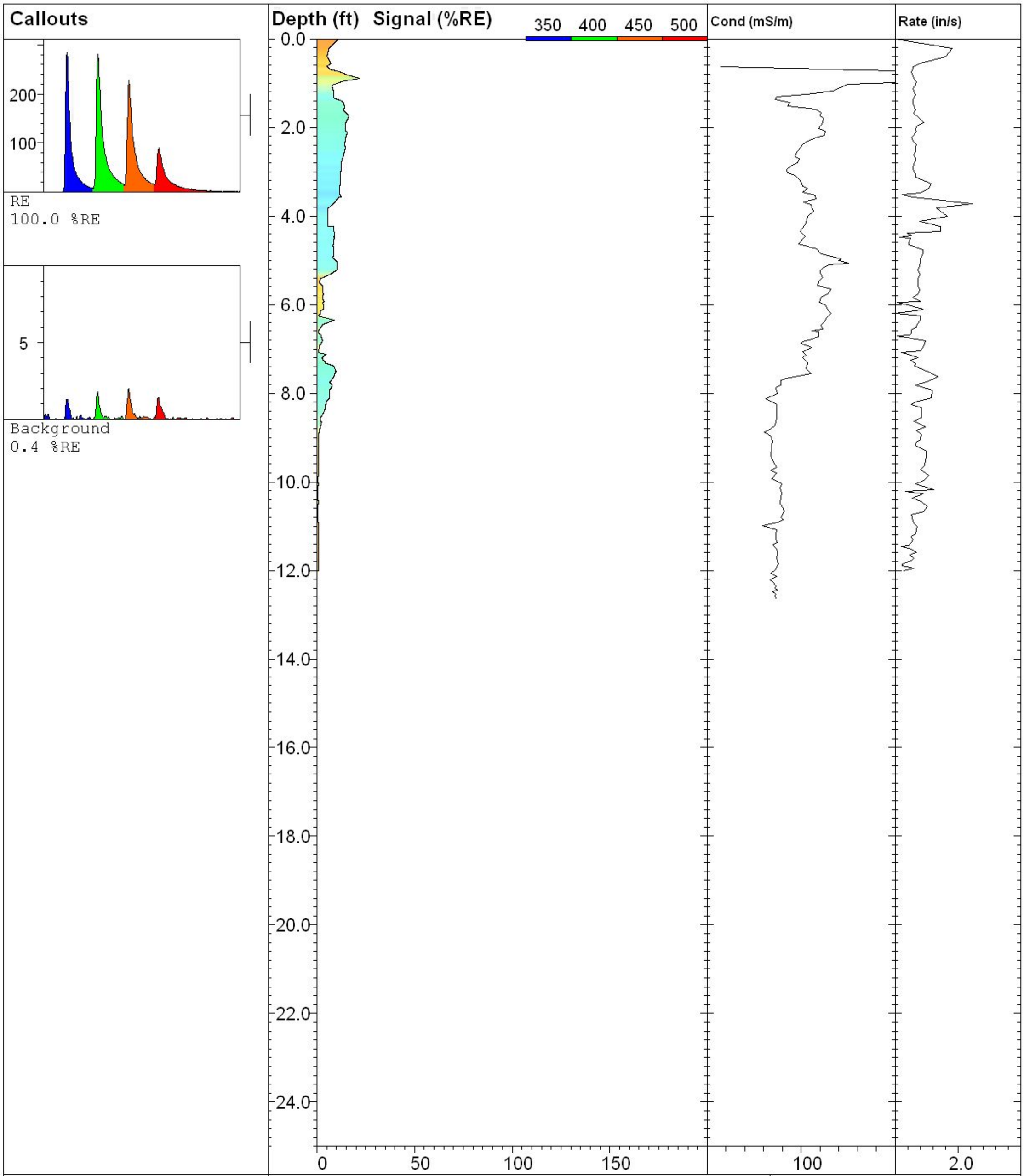

LIF-24		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.01 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **21.9 % @ 0.89 ft**
Job: **047-MNDS-12**	*Operator/Unit:* **MJ/GP/UVOST1003**	*Date & Time:* **2012-04-25 15:42 CDT**

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MATRIX ENVIRONMENTAL LLC

Monday, November 19, 2012

11253 91st Ave. N.
Maple Grove, MN 55369
763-424-4803
FAX: 763-424-9452

-Direct Sensing Report, UVOST-

Client:	**Golder Associates**
Project Name:	**Electrolux**
Location:	**Jefferson, IA**
Project Number:	**131-MNDS-12UV**

The analysis and opinions expressed in this report are based upon data obtained from UVOST logs generated (and samples collected for emulations if applicable) at the location specified, and from other information discussed in this report. Exceptions, if any, are discussed in the accompanying discussion if applicable. This report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted practices. Reported results shall not be reproduced, except in full, without written approval of the lab. The sample results relate only to the analytes of interest tested. No warranties, expressed or implied are intended or made.

I certify that the data contained in this final report has been generated and reviewed in accordance with approved methods and our Standard Operating Procedure. Release of this final report is authorized by Laboratory management, which is verified by the following signature.

Approval Signature _____ Date 11/26/12

LIF SYSTEM DESCRIPTION & ANALYSIS

UVOST

Fluorescence is a property of some compounds where absorbed UV light stimulates the emission of photons (light) of a longer wavelength relative to the source emission. The release of the photons can be used to detect small amounts of substance (i.e. polycyclic aromatic hydrocarbons or PAHs) in a larger matrix (soil). This method of detection has been used in laboratories for decades. Now, with the availability of lasers and optical fibers, this technology can be applied down hole in the field.

The UVOST system sends light (via 308 nm laser) through a fiber optic cable strung within probe rods. The light, reflected by a parabolic mirror, then exits through a sapphire window in the side of the probe. As the probe is advanced, the soil is exposed to the UV laser light. If PAHs are present (compounds in POLs that fluoresce, i.e. LNAPL) longer wavelength light is emitted by the contaminants. This "signal" light is transmitted through a return fiber, back up hole to be analyzed. Responses are indicated in real-time on a graph of signal vs. depth. The UVOST log displays "color mixed" signal logs (contributions from 4 channels) and waveforms ("fingerprint" of multi-wavelength) to aid in identification and relative quantity of the contaminant present.

Prior to every log the UVOST system is checked for optical quality by observing the background signal for sources of signal in the fiber, filter, mirror and sapphire window. Also, the reference emitter (a standard proprietary NAPL mixture called the "RE") is placed on the window to determine the qualitative and semi-quantitative properties of the laser system. This is to assure that the RE response has the correct shape and intensity and that the UVOST system is ready to log. Typically the RE will be set between 10,000 and 12,000 pVs (picovolt-seconds, a measure of waveform area) and the background can vary from 0.1% to 1% (area of about 0-100 pVs). It is important to remember that the relationship between the NAPL in the ground and the RE depends on that particular NAPL. The calibration of the system is not to a concentration, but to a known fluorescence signature.

EC (Electrical Conductivity)

Electrical Conductivity (EC) is a measure of the soils ability to conduct an electrical current between two dipoles on the LIF/EC probe. Conductivity is the reciprocal of electrical resistivity and has the units (in our application) of millisiemens per meter (mS/m). Since soil is in the pathway of the charge flow, the grain size can be determined by comparing the EC log to a soil boring. Conductivity readings in the 100s indicate smaller grain (size such as clay). Larger grain size (sand and gravels) are typically in the 10s of mS/m range. Prior to every log the EC point of the UVOST probe is checked for proper operation by performing a voltage test with a voltage meter and a conductivity test with a test block.

DISCUSSION

Laser was charged on 11/14/12 after LIF-46 was completed.
LIF-56 and LIF-57 were done east of the property outside of fence in the corn field.
LIF-66 was done in the middle loading dock area about 3 feet lower in elevation than all other locations.

MATRIX ENVIRONMENTAL LLC

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Client: Golder Associates
Contact: Jim Peace
Services: UVOST Logging

Date: 11/14/12 - 11/16/12
Project: Electrolux
Project #: 131-MNDS-12UV
Address: Jefferson, IA

UVOST Log Summary

File	Date/Time	Latitude	Longitude	Final Depth *(ft)*	Max Signal *(%RE)*	Max. Signal Depth *(ft)*	Initial RE Area *(pVs)*	Background Area *(pVs)*	Fluorescence Top - Bottom *(ft)*
LIF-25	11/14/2012 5:51	NA	NA	12.1	4	0.5	11468	22	7.0-8.5 (low)
LIF-26	11/14/2012 6:11	NA	NA	12.0	3	0.3	11274	12	NA
LIF-27	11/14/2012 6:27	NA	NA	12.1	7	0.6	11265	36	NA
LIF-28	11/14/2012 6:42	NA	NA	12.1	28	1.2	11475	34	0.25-1.75
LIF-29	11/14/2012 7:09	NA	NA	12.4	26	0.6	11581	28	0.5-7.0
LIF-30	11/14/2012 7:26	NA	NA	12.1	21	0.7	11822	30	0.5-6.5
LIF-31	11/14/2012 7:42	NA	NA	12.1	18	0.5	11327	31	0.5-9.25
LIF-32	11/14/2012 8:02	NA	NA	12.1	7	6.4	11005	22	4.0-10.0
LIF-33	11/14/2012 8:17	NA	NA	12.1	9	0.4	11352	23	NA
LIF-34	11/14/2012 8:30	NA	NA	12.0	8	0.5	11109	40	NA
LIF-35	11/14/2012 8:44	NA	NA	16.1	25	6.5	11498	54	spike @ 1.0, 2.75-13.25
LIF-36	11/14/2012 9:15	NA	NA	12.1	5	0.4	11801	27	NA
LIF-37	11/14/2012 9:29	NA	NA	12.1	3	0.0	11509	37	NA
LIF-38	11/14/2012 9:42	NA	NA	13.0	307	7.8	11777	45	1.0-3.5 (low), 3.5-11.75
LIF-39	11/14/2012 10:06	NA	NA	12.1	12	4.9	11463	46	1.5-2.5 (low), 4.5-7.0
LIF-40	11/14/2012 10:27	NA	NA	12.0	91	5.1	11218	31	1.5-9.0
LIF-41	11/14/2012 11:56	NA	NA	12.2	17	2.4	11114	29	0.3.5, 5.25-6.5
LIF-42	11/14/2012 12:21	NA	NA	12.0	2	2.0	11135	27	NA
LIF-43	11/14/2012 12:38	NA	NA	12.1	22	4.2	11936	47	2.25-9.5
LIF-44	11/14/2012 12:55	NA	NA	12.3	8	3.1	11176	32	2.0-9.5
LIF-45	11/14/2012 13:09	NA	NA	12.1	25	4.7	11282	38	1.75-9.5
LIF-46	11/14/2012 13:25	NA	NA	12.1	43	7.8	11510	27	1.5-9.0
LIF-47	11/15/2012 5:33	NA	NA	12.2	14	0.0	11331	19	6.5-8.25 (low)
LIF-48	11/15/2012 5:47	NA	NA	12.1	38	7.1	11194	38	5.5-7.5
LIF-49	11/15/2012 5:59	NA	NA	12.1	113	5.5	11009	30	4.25-9.25
LIF-50	11/15/2012 6:20	NA	NA	12.0	7	5.6	11156	25	4.5-6.5
LIF-51	11/15/2012 6:34	NA	NA	12.1	4	5.5	11270	29	4.5-7.75
LIF-52	11/15/2012 6:52	NA	NA	12.3	2	5.8	11002	30	5.5-7.25 (low)
LIF-53	11/15/2012 7:11	NA	NA	12.1	40	5.8	11069	31	5.0-8.75
LIF-54	11/15/2012 7:25	NA	NA	12.1	2	3.5	11050	21	NA

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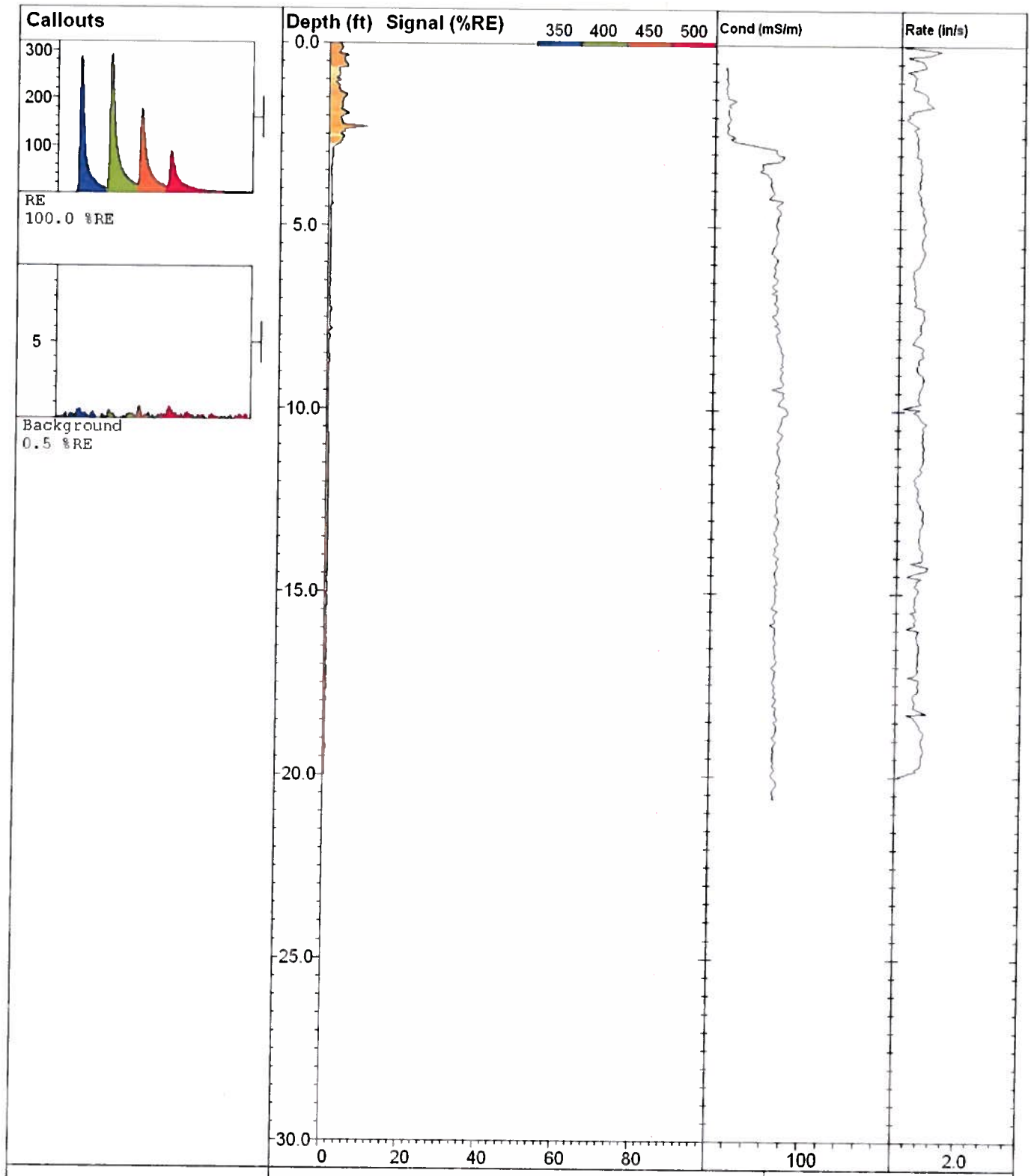
Client: Golder Associates
Contact: Jim Peace
Services: UVOST Logging

Date: 11/14/12 - 11/16/12
Project: Electrolux
Project #: 131-MNDS-12UV
Address: Jefferson, IA

UVOST Log Summary

File	Date/Time	Latitude	Longitude	Final Depth *(ft)*	Max Signal *(%RE)*	Max. Signal Depth *(ft)*	Initial RE Area *(pVs)*	Background Area *(pVs)*	Fluorescence Top - Bottom *(ft)*
LIF-55	11/15/2012 7:39	NA	NA	12.1	4	6.8	11019	31	5.5-7.25
LIF-56	11/15/2012 7:57	NA	NA	12.1	9	5.0	11569	40	3.0-7.0
LIF-57	11/15/2012 8:13	NA	NA	12.0	5	5.1	11866	23	4.0-7.5
LIF-58	11/15/2012 8:30	NA	NA	12.1	9	0.2	11832	34	NA
LIF-59	11/15/2012 8:46	NA	NA	12.1	13	0.7	11681	32	NA
LIF-60	11/15/2012 9:02	NA	NA	12.1	13	8.8	11029	33	4.5-9.25
LIF-61	11/15/2012 9:16	NA	NA	12.1	9	1.6	11177	49	3.5-6.25
LIF-62	11/15/2012 9:30	NA	NA	28.1	55	5.8	11523	43	3.5-26.75
LIF-63	11/15/2012 11:22	NA	NA	20.0	7	0.9	11453	22	NA
LIF-64	11/15/2012 11:43	NA	NA	12.1	5	1.1	11397	23	NA
LIF-65	11/15/2012 11:58	NA	NA	12.0	8	4.7	11563	23	3.0-6.5
LIF-66	11/15/2012 12:19	NA	NA	12.2	18	5.0	11798	39	low spikes at 2.5 & 3.5, 5-5.5
LIF-67	11/15/2012 12:35	NA	NA	13.2	6	0.4	11939	27	NA
LIF-68	11/15/2012 12:51	NA	NA	12.0	5	0.2	11232	28	NA
LIF-69	11/15/2012 13:01	NA	NA	12.1	27	7.0	11601	33	6.5-8.75
LIF-70	11/15/2012 13:12	NA	NA	12.1	26	1.1	11587	33	0.5-2.5, 6.5-8.5
LIF-71	11/15/2012 13:26	NA	NA	12.1	11	0.7	11340	35	2.25-4.0
LIF-72	11/15/2012 13:41	NA	NA	12.1	6	0.5	11415	32	NA
LIF-73	11/15/2012 13:53	NA	NA	12.1	3	0.5	11950	37	NA
LIF-74	11/15/2012 14:07	NA	NA	12.2	8	0.4	11527	32	1.0-2.0, 4.0-5.5
LIF-75	11/15/2012 14:22	NA	NA	12.1	3	1.1	11249	37	NA
LIF-76	11/15/2012 14:34	NA	NA	12.1	10	0.0	11385	31	NA
LIF-77	11/15/2012 14:46	NA	NA	12.0	4	0.3	11689	34	NA
LIF-78	11/15/2012 15:00	NA	NA	12.1	6	7.3	11272	34	5.0-8.5 (low)
LIF-79	11/16/2012 5:40	NA	NA	12.0	2	0.6	11326	26	NA
LIF-80	11/16/2012 5:58	NA	NA	12.1	3	0.2	11541	22	NA
LIF-81	11/16/2012 6:14	NA	NA	12.1	33	7.2	11711	39	6.5-9.0
LIF-82	11/16/2012 6:29	NA	NA	12.1	4	0.3	11545	31	2.0-2.5 (very low)
LIF-83	11/16/2012 6:44	NA	NA	20.0	65	8.5	11526	18	0.5-6.5 (low), 6.5-10
LIF-84	11/16/2012 7:09	NA	NA	20.0	10	2.3	11095	51	NA



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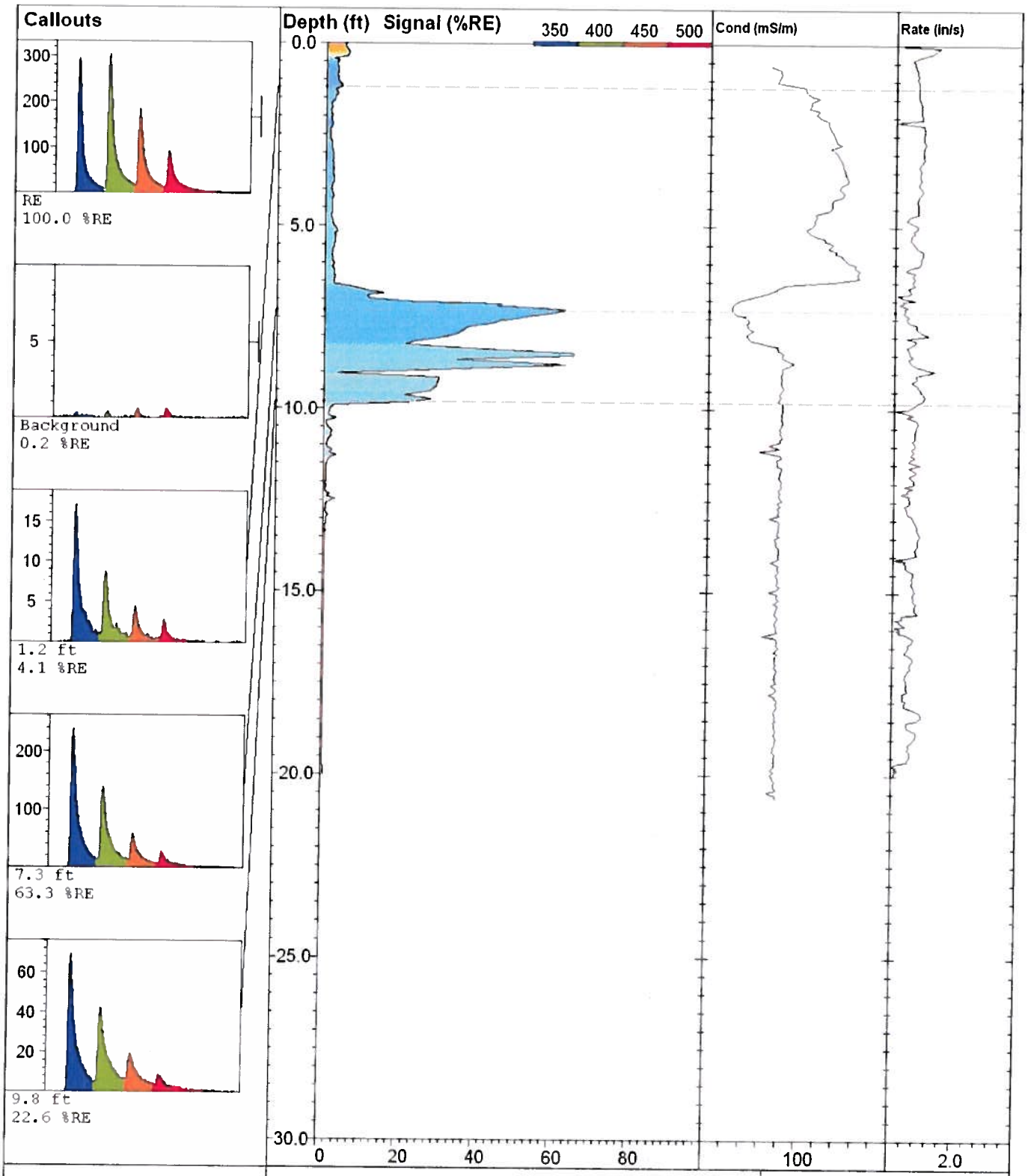
LIF-84		UVOST By Dakota www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **20.00 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **9.9 % @ 2.30 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-16 07:09 PST**



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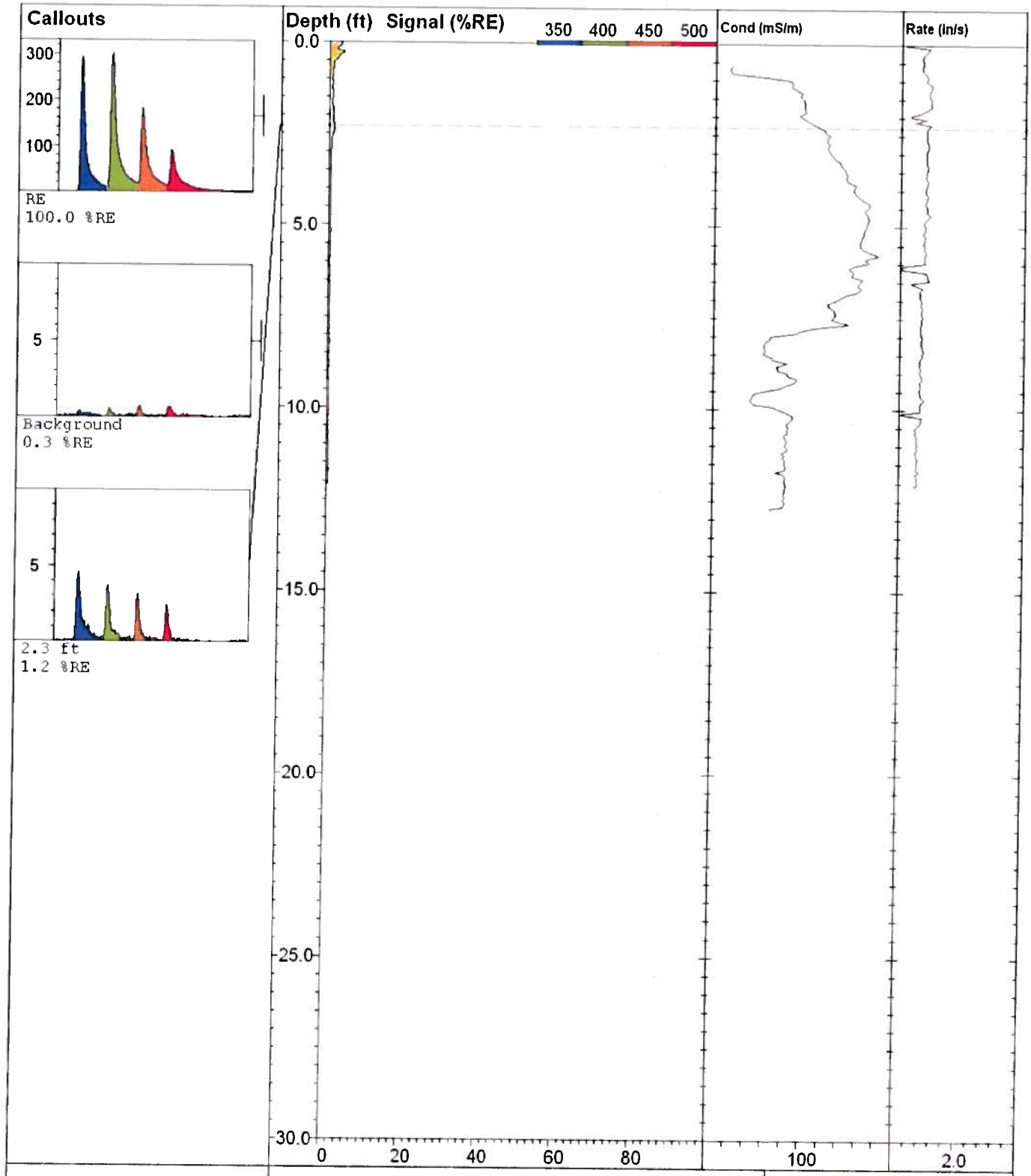
LIF-83

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **20.02 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **65.0 % @ 8.54 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-16 06:44 PST**



LIF-82		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.08 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **3.9 % @ 0.28 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-16 06:29 PST**

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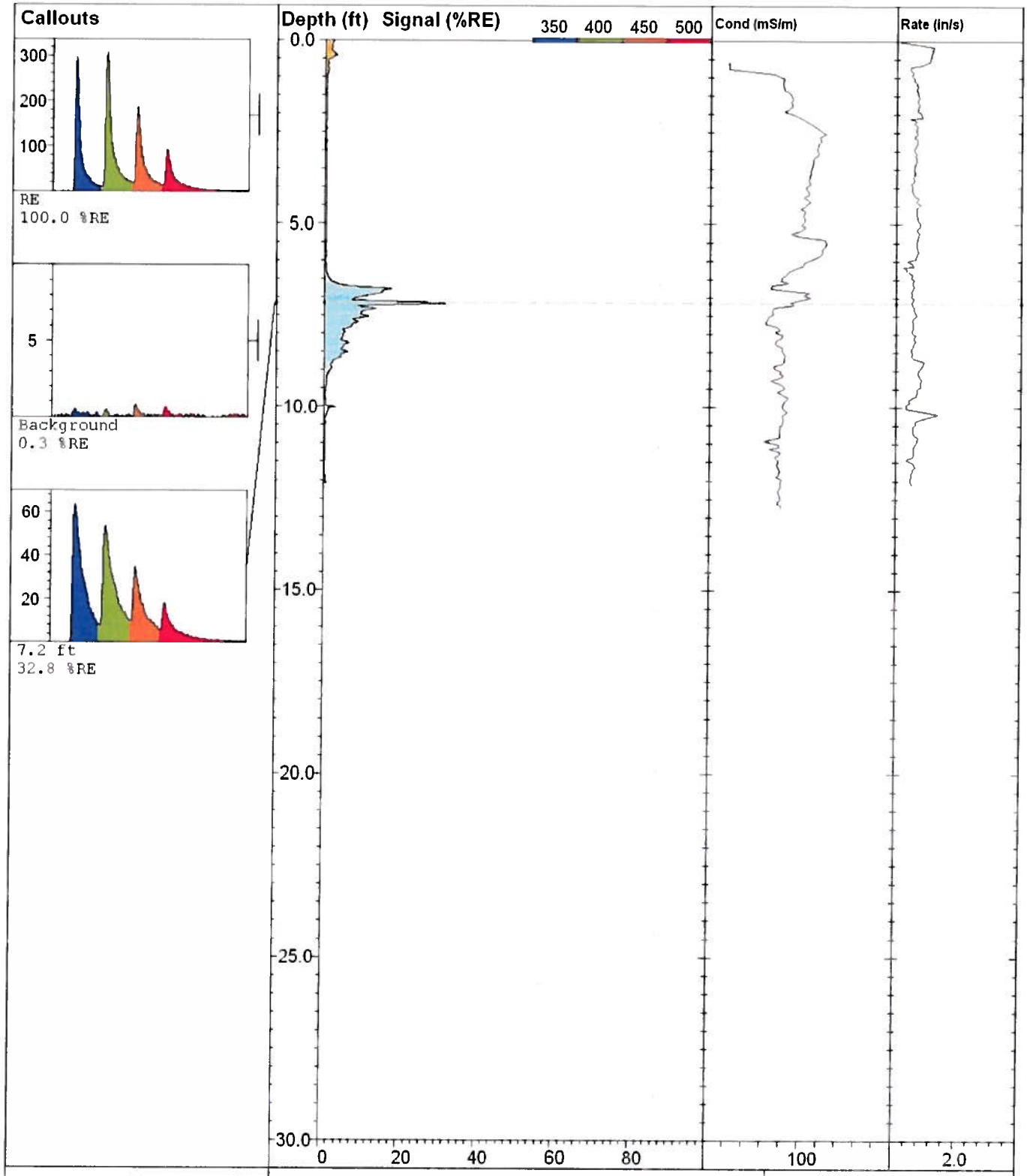

LIF-81		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.08 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **32.8 % @ 7.17 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-16 06:14 PST**

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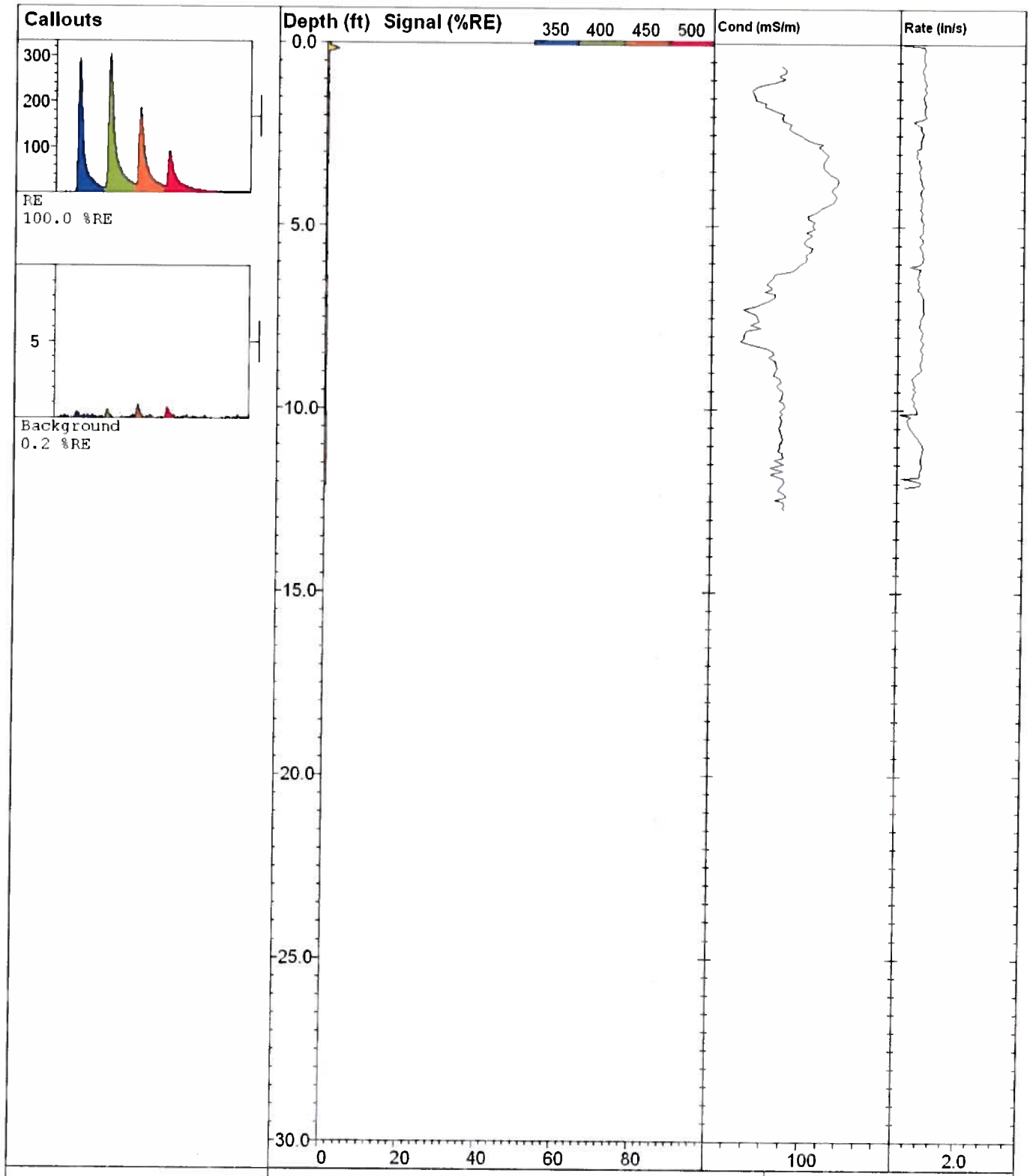

LIF-80		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.10 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **3.0 % @ 0.17 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-16 05:58 PST**

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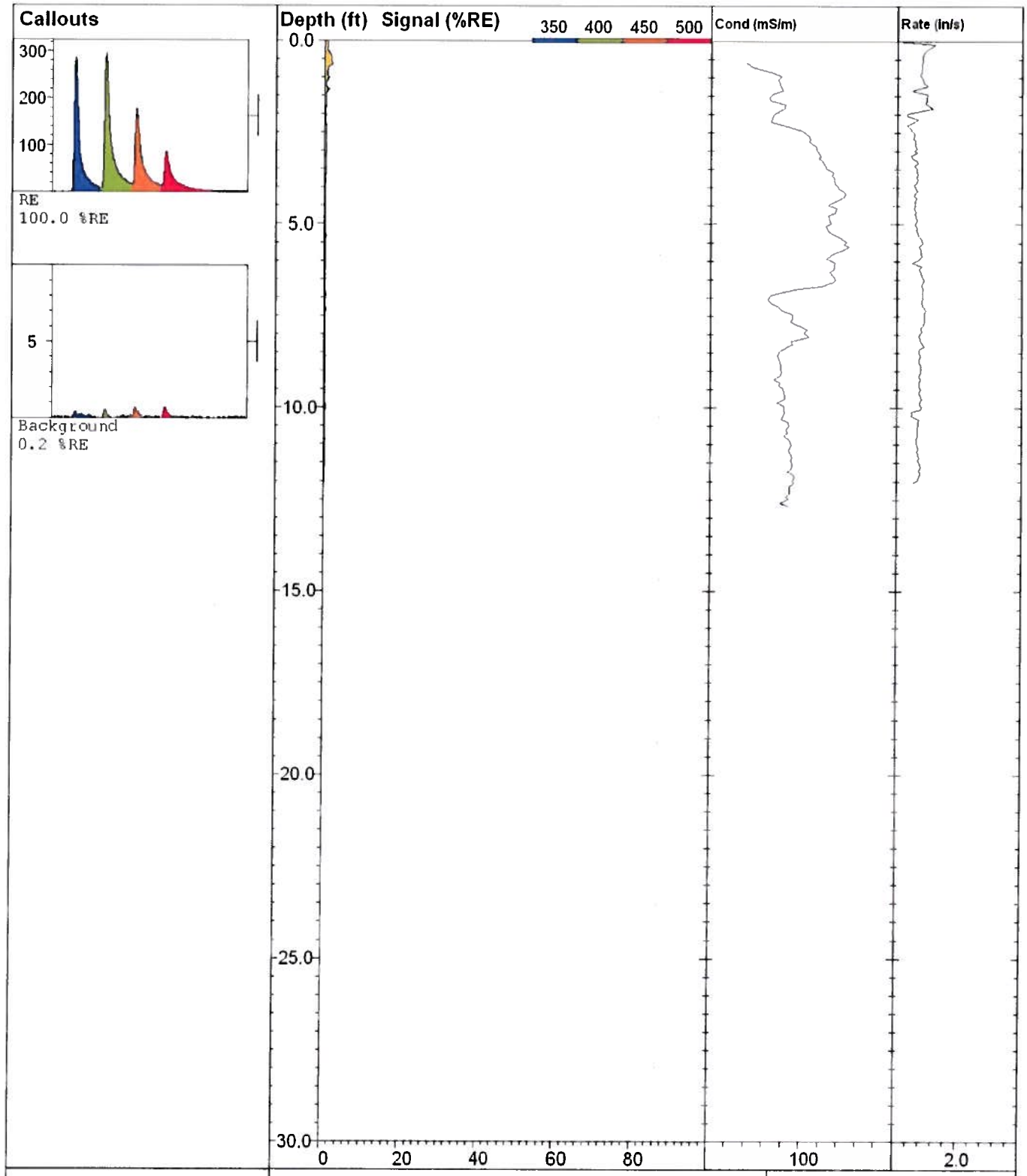

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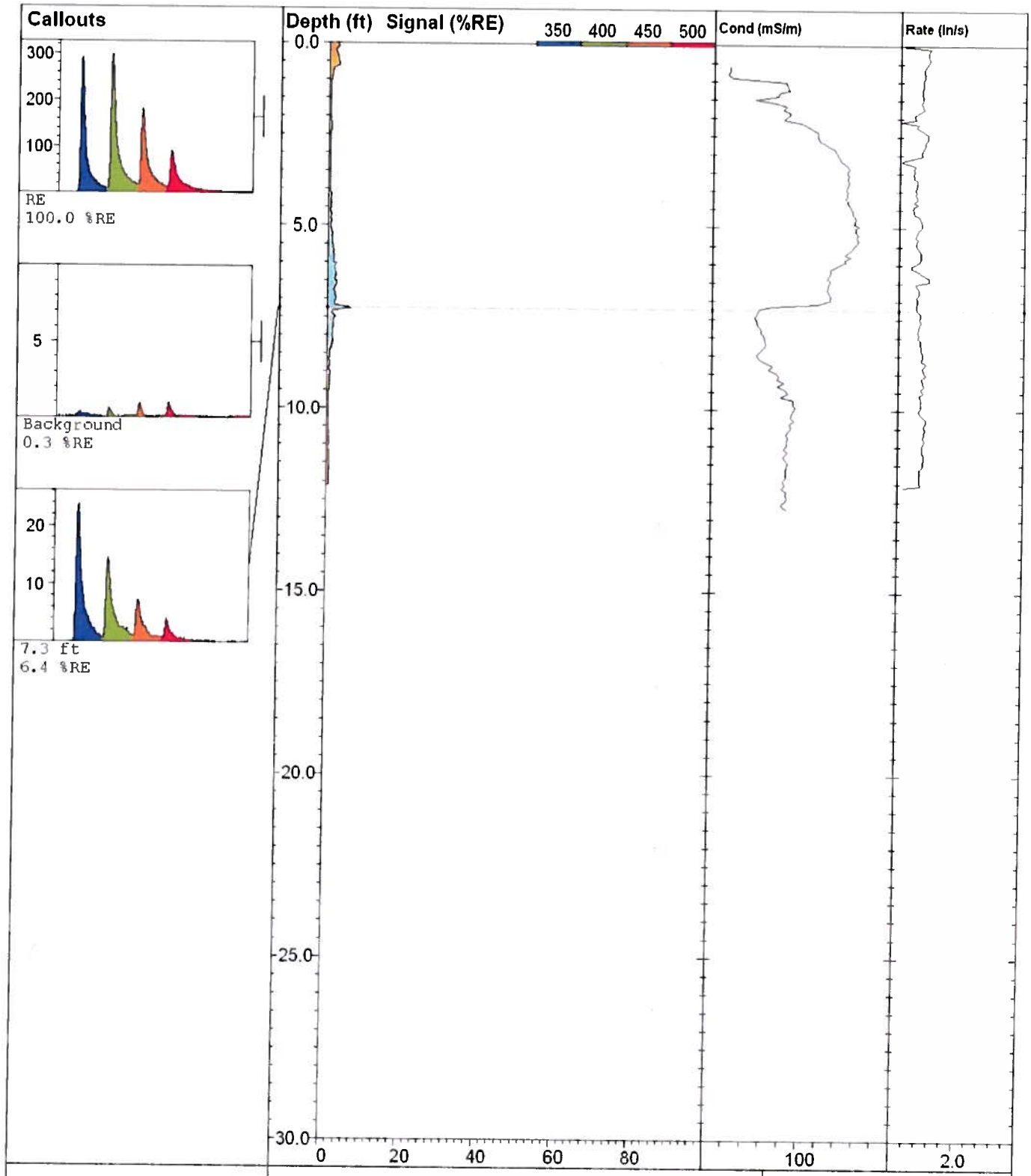
LIF-79

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.04 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **2.1 % @ 0.65 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-16 05:40 PST**



LIF-78		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.10 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **6.4 % @ 7.26 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 15:00 PST**

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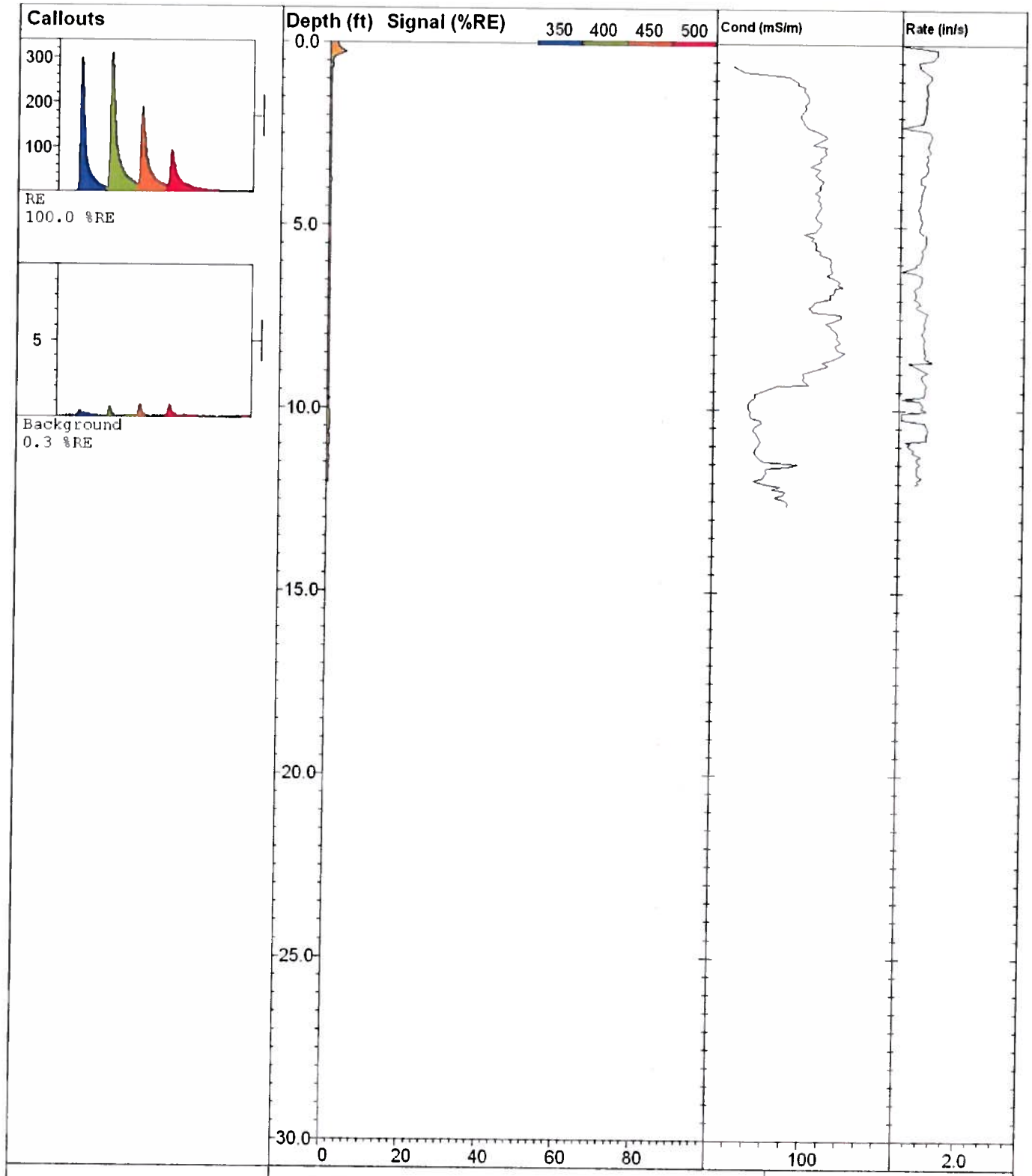

LIF-77		UVOST By Dakota www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.04 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **4.0 % @ 0.27 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 14:46 PST**

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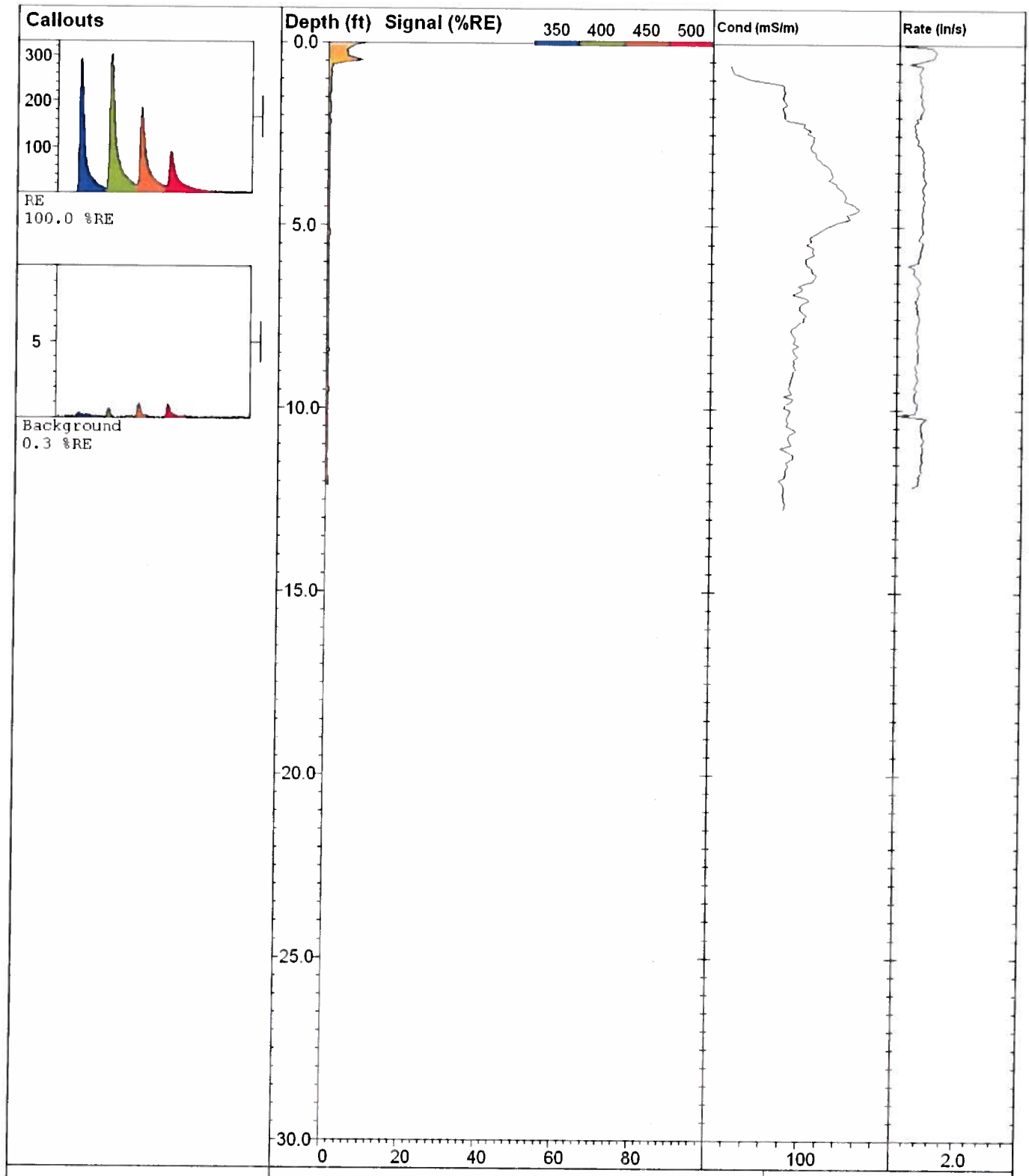

LIF-76		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.10 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **10.4 % @ 0.00 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 14:34 PST**

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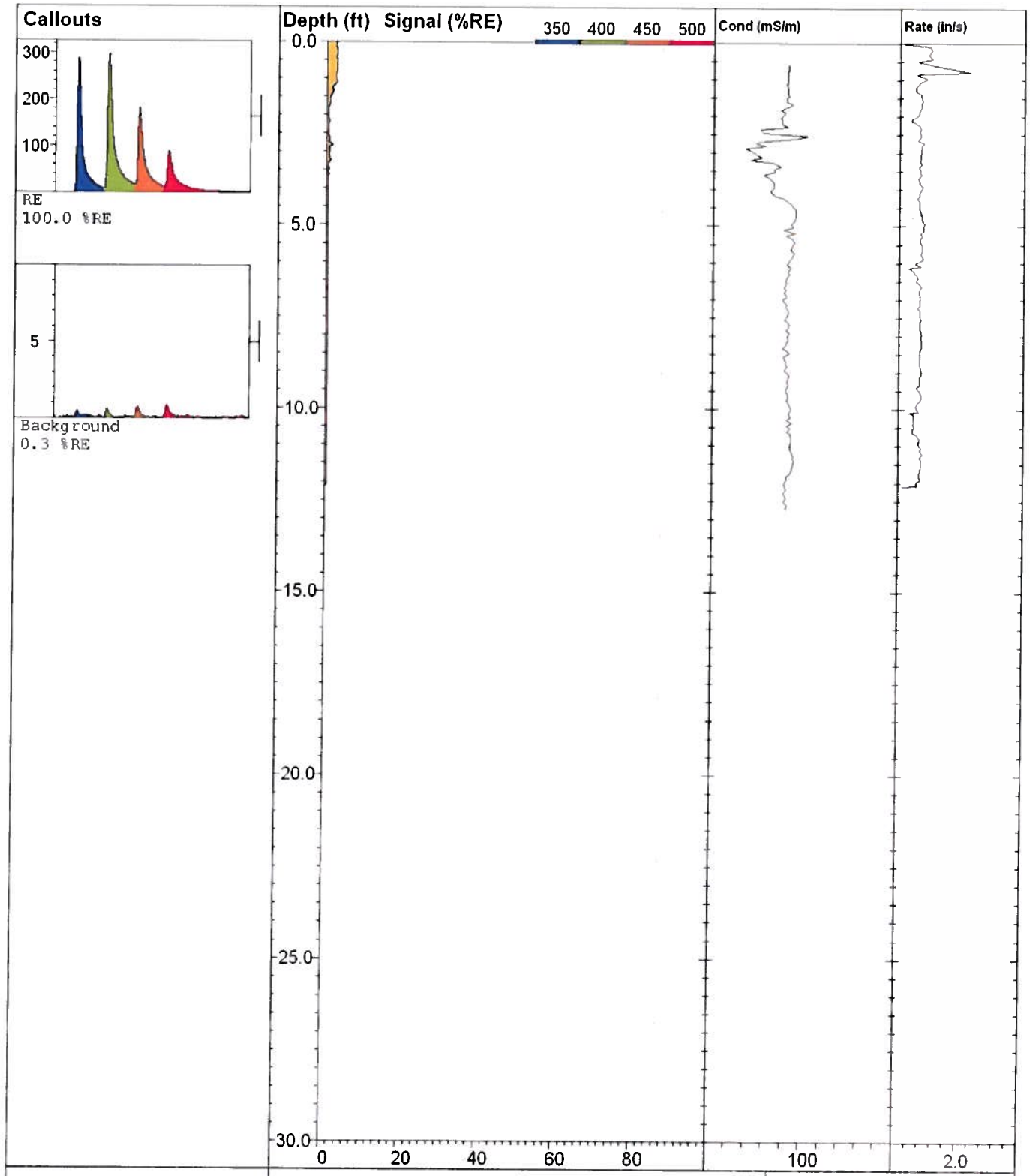

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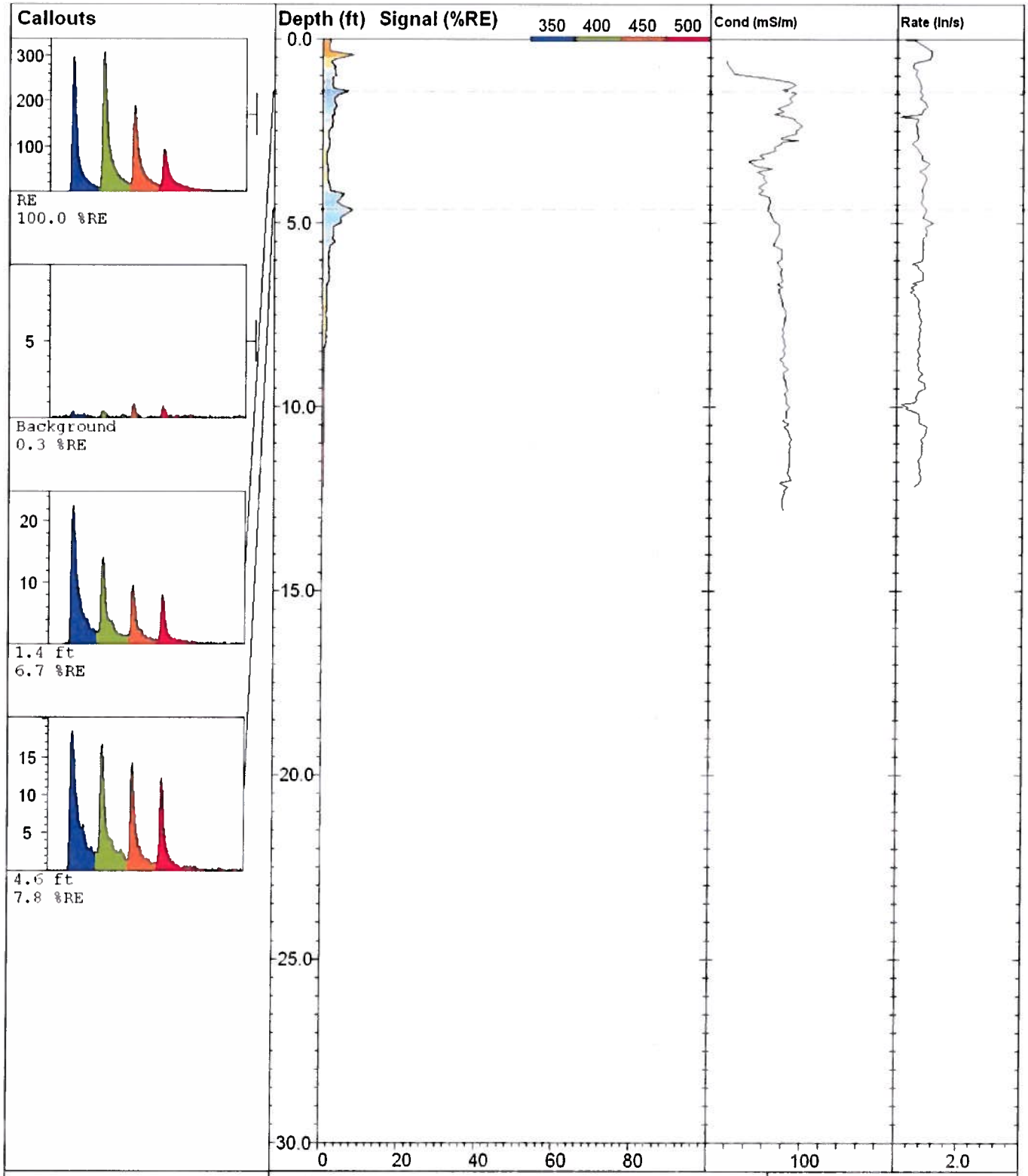
LIF-75

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.09 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **2.6 % @ 1.14 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 14:22 PST**



MATRIX ENVIRONMENTAL LLC
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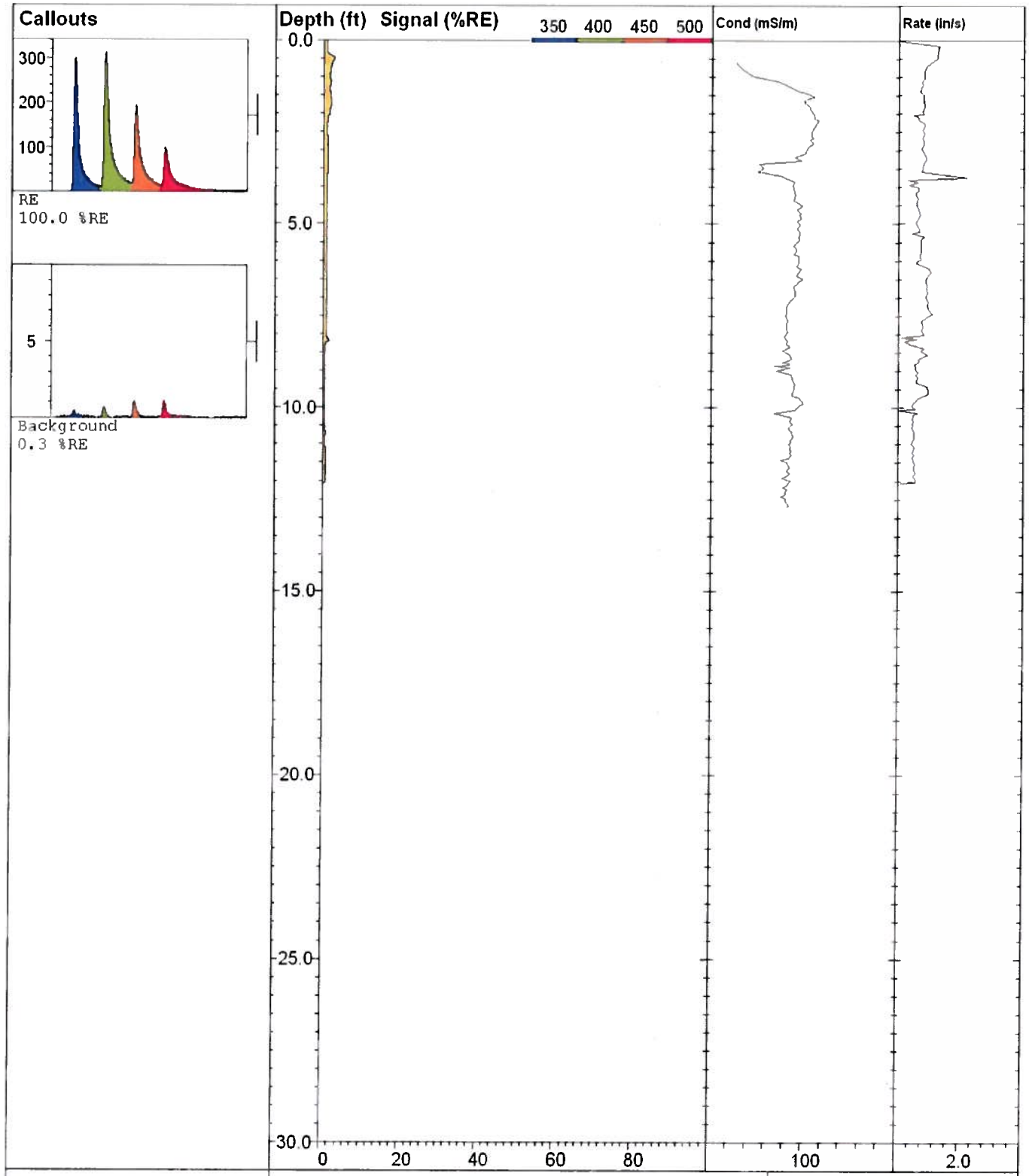
LIF-74

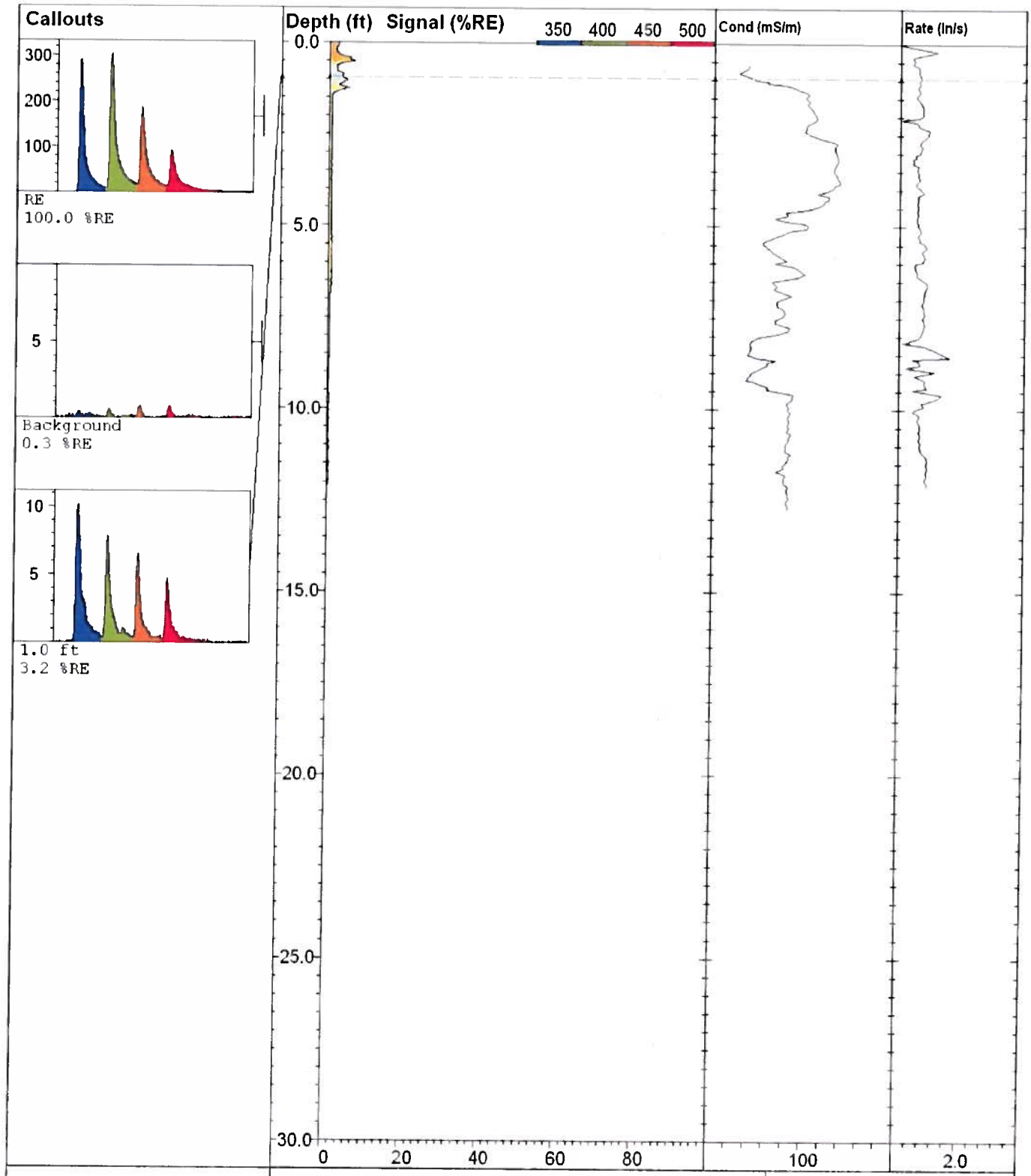
UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.16 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **7.9 % @ 0.44 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 14:07 PST**



LIF-73		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.07 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **2.8 % @ 0.49 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 13:53 PST**

MATRIX ENVIRONMENTAL LLC



LIF-72		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.09 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **6.5 % @ 0.53 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 13:41 PST**

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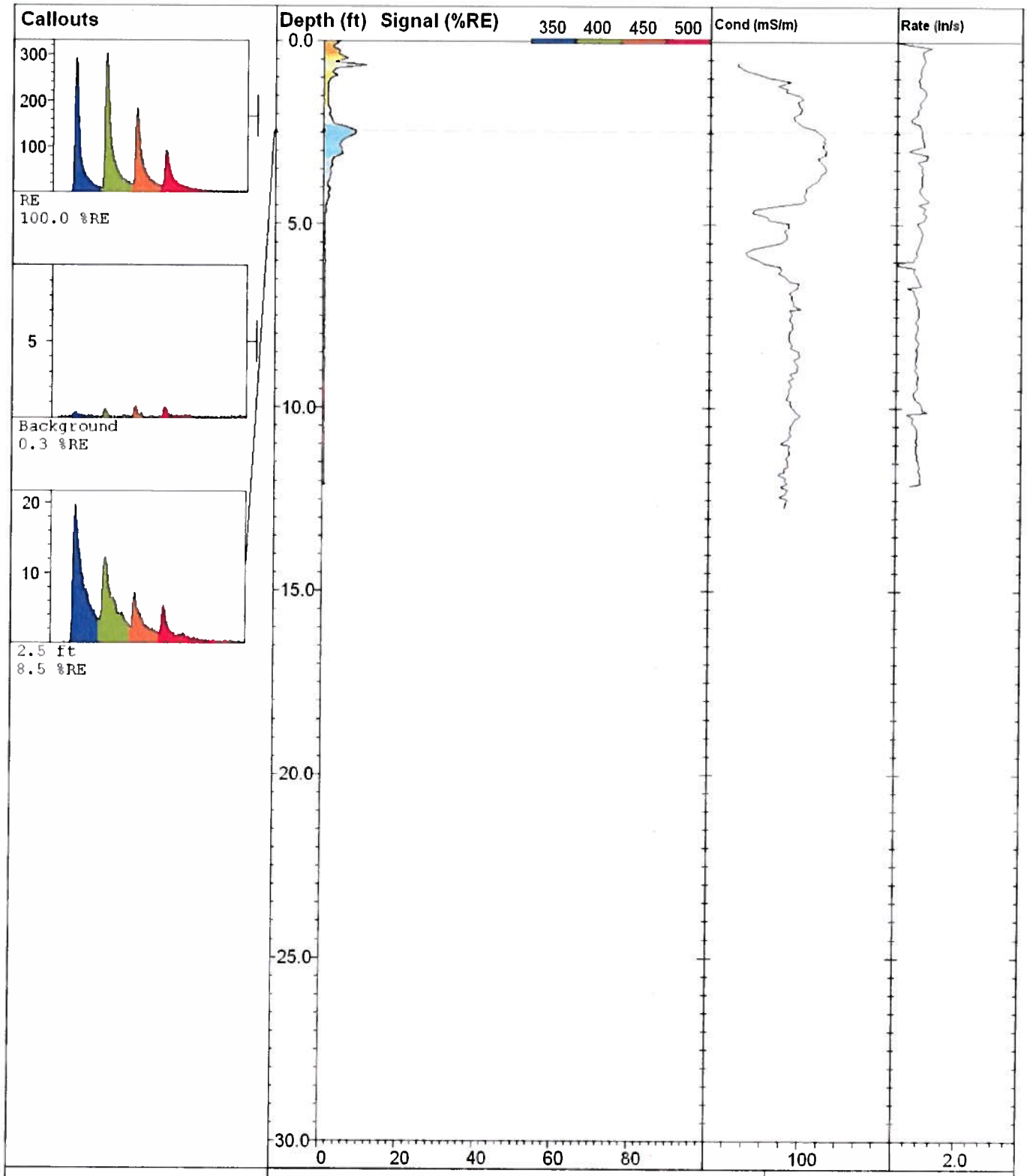

LIF-71		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.09 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **10.9 % @ 0.66 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 13:26 PST**

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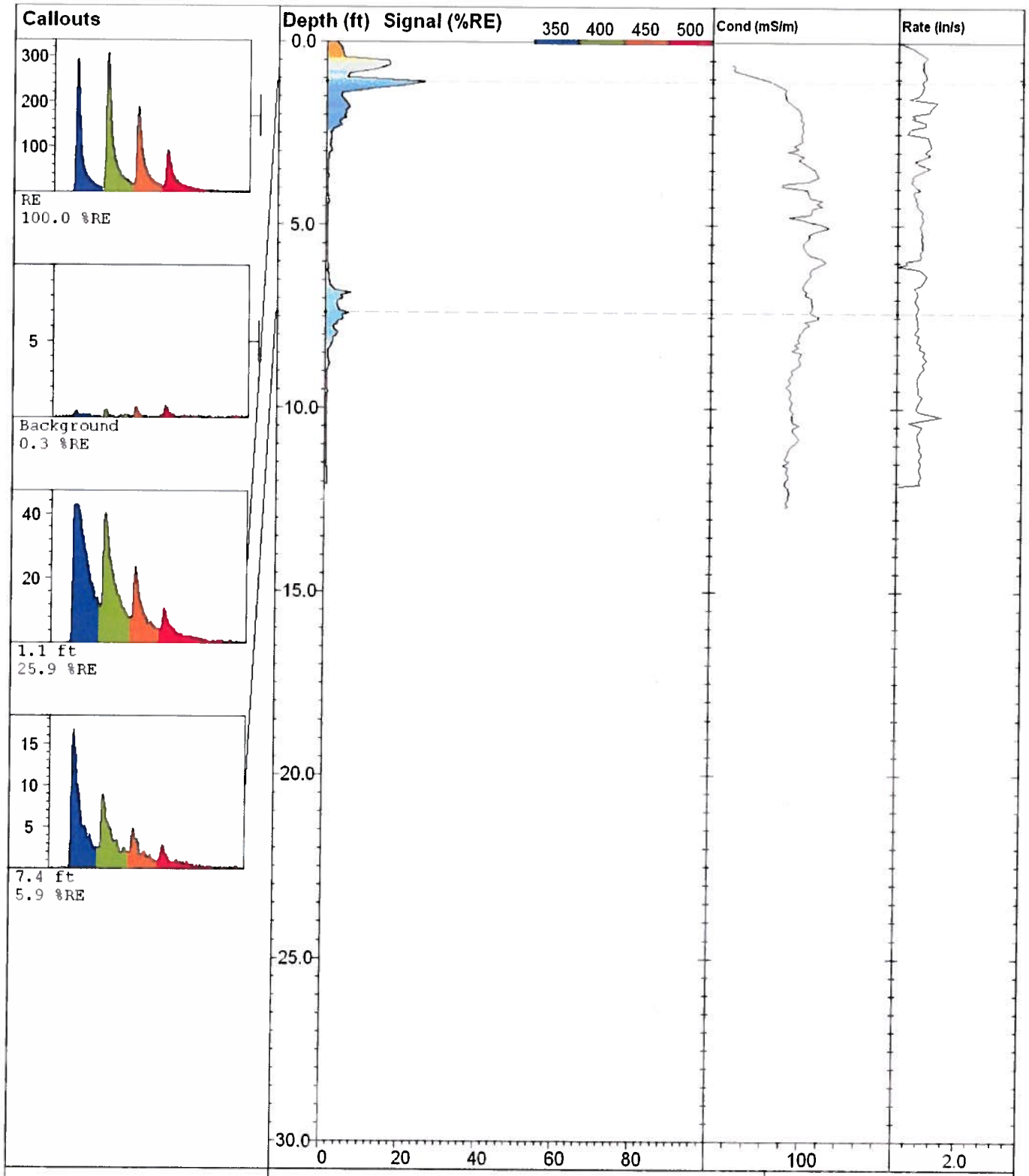

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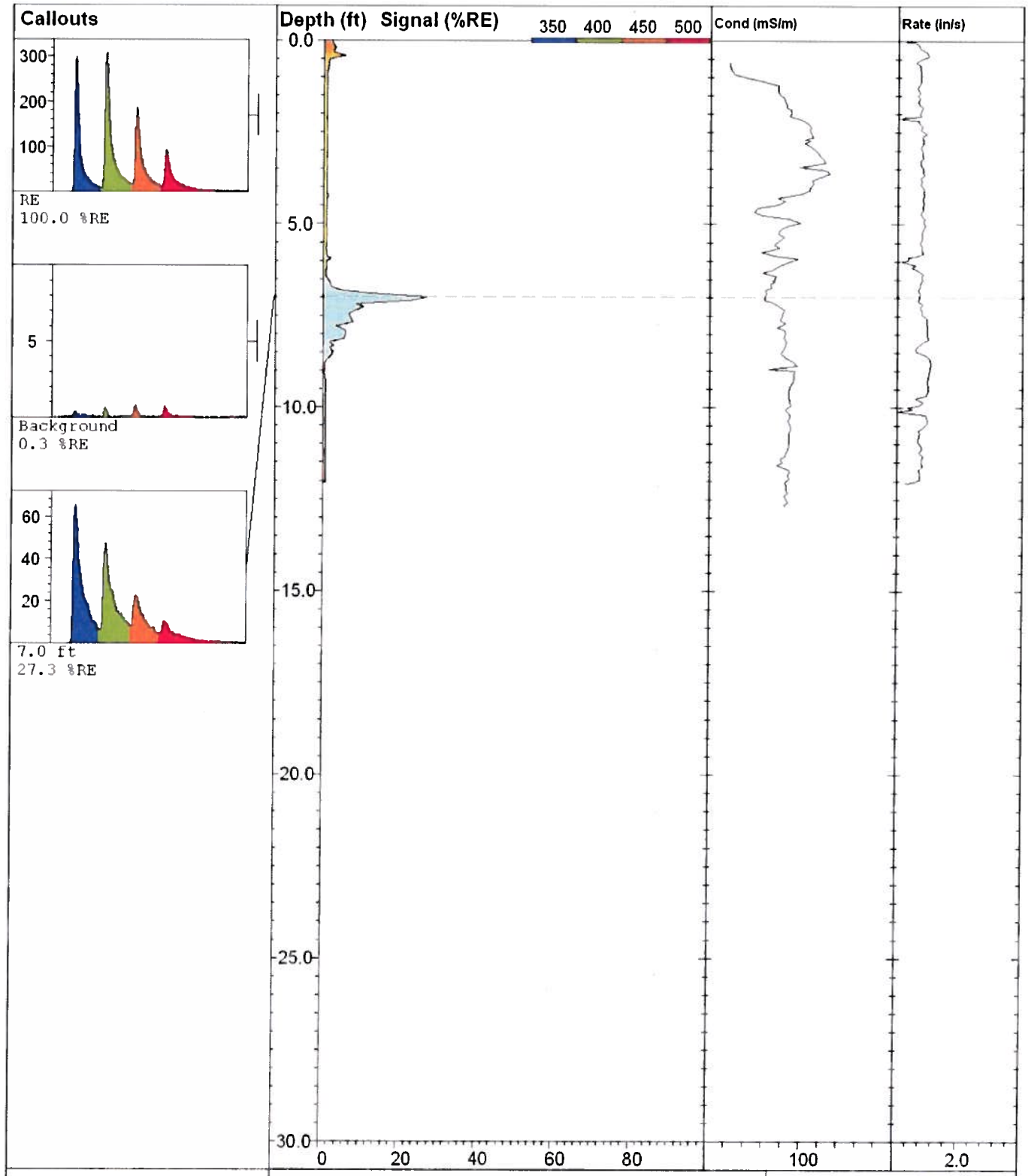
LIF-70

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.07 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **25.9 % @ 1.09 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 13:12 PST**



MATRIX ENVIRONMENTAL LLC
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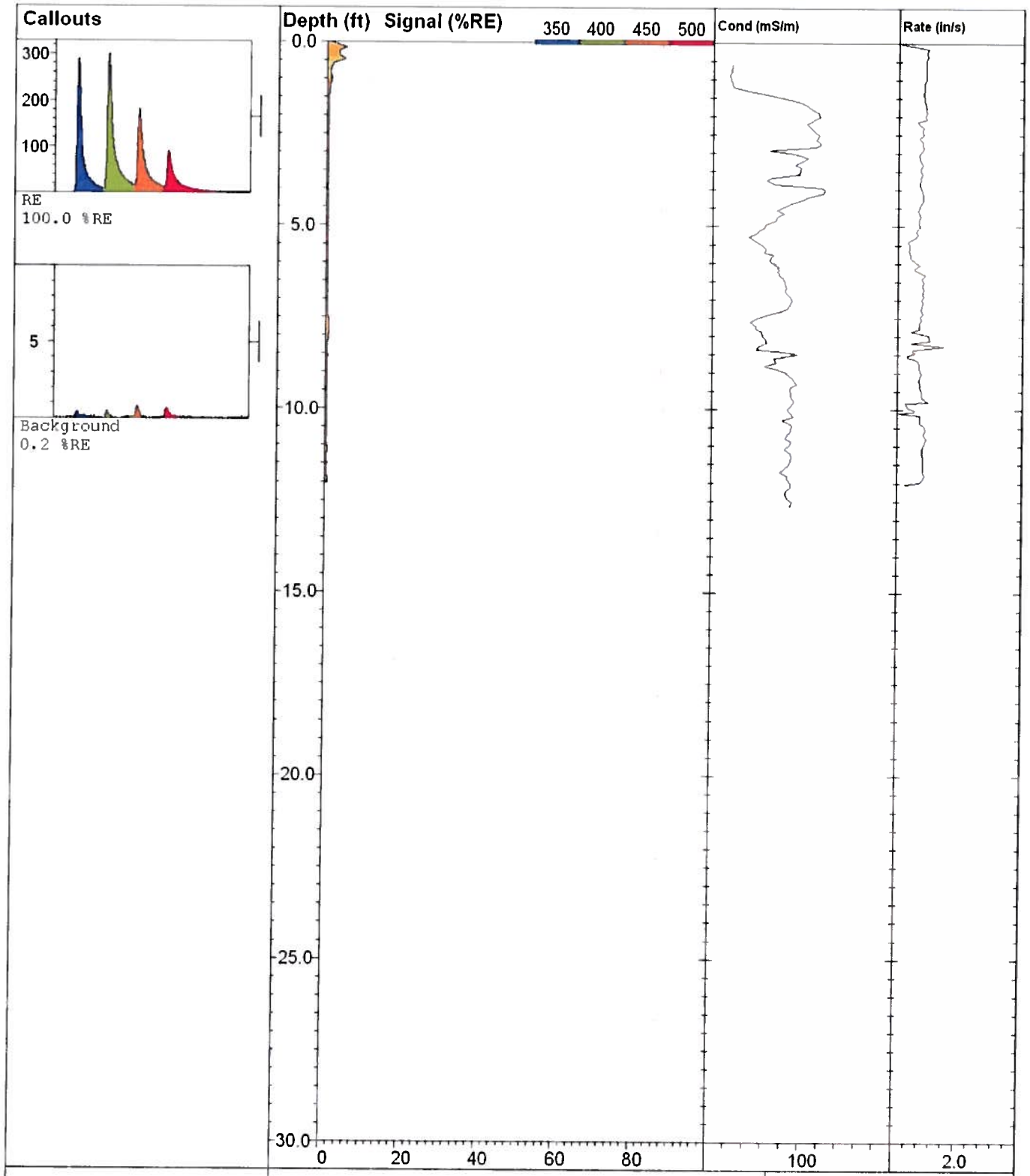
LIF-69

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.06 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **27.3 % @ 6.98 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 13:01 PST**



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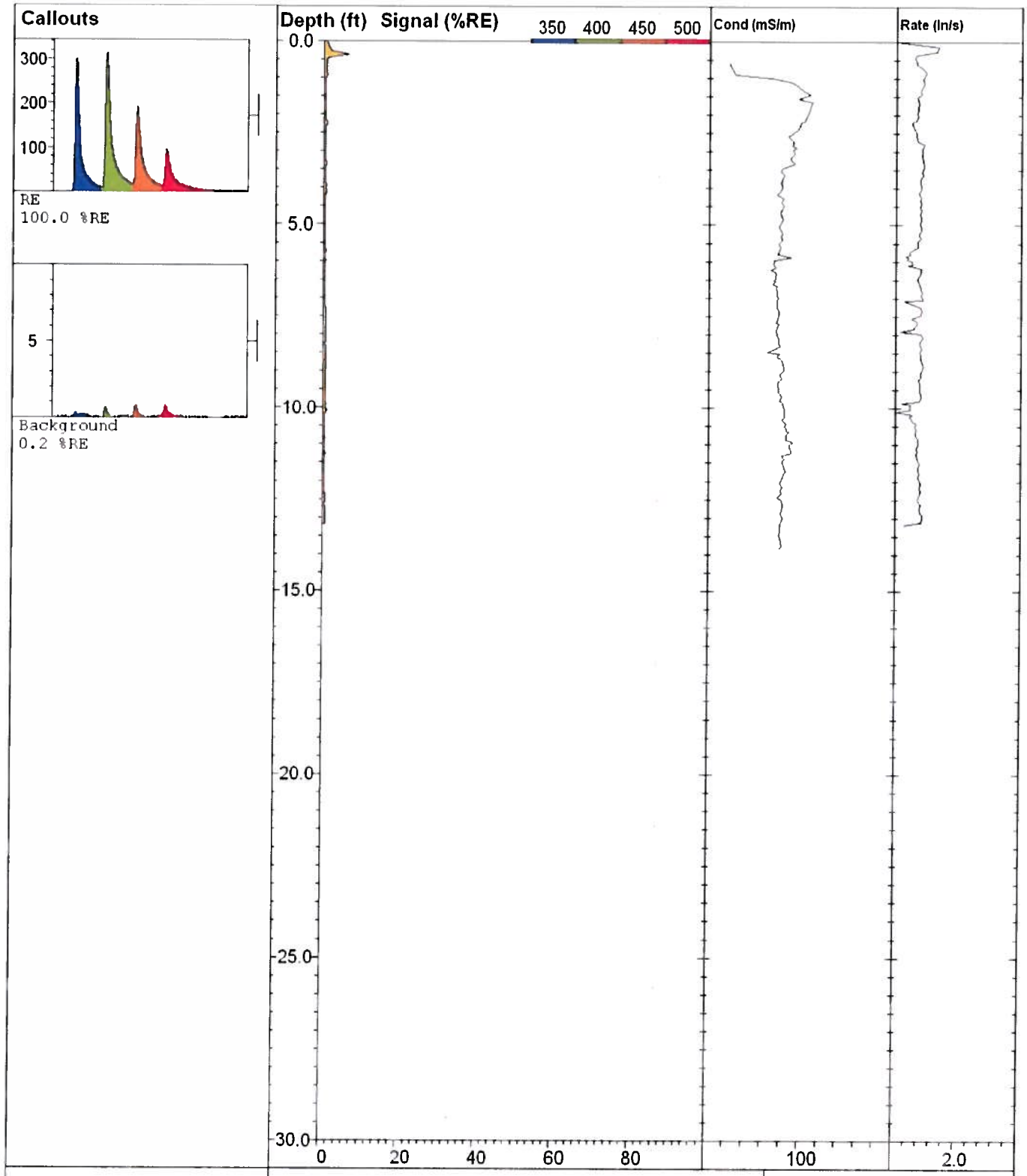
LIF-68

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.03 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **4.9 % @ 0.16 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 12:51 PST**



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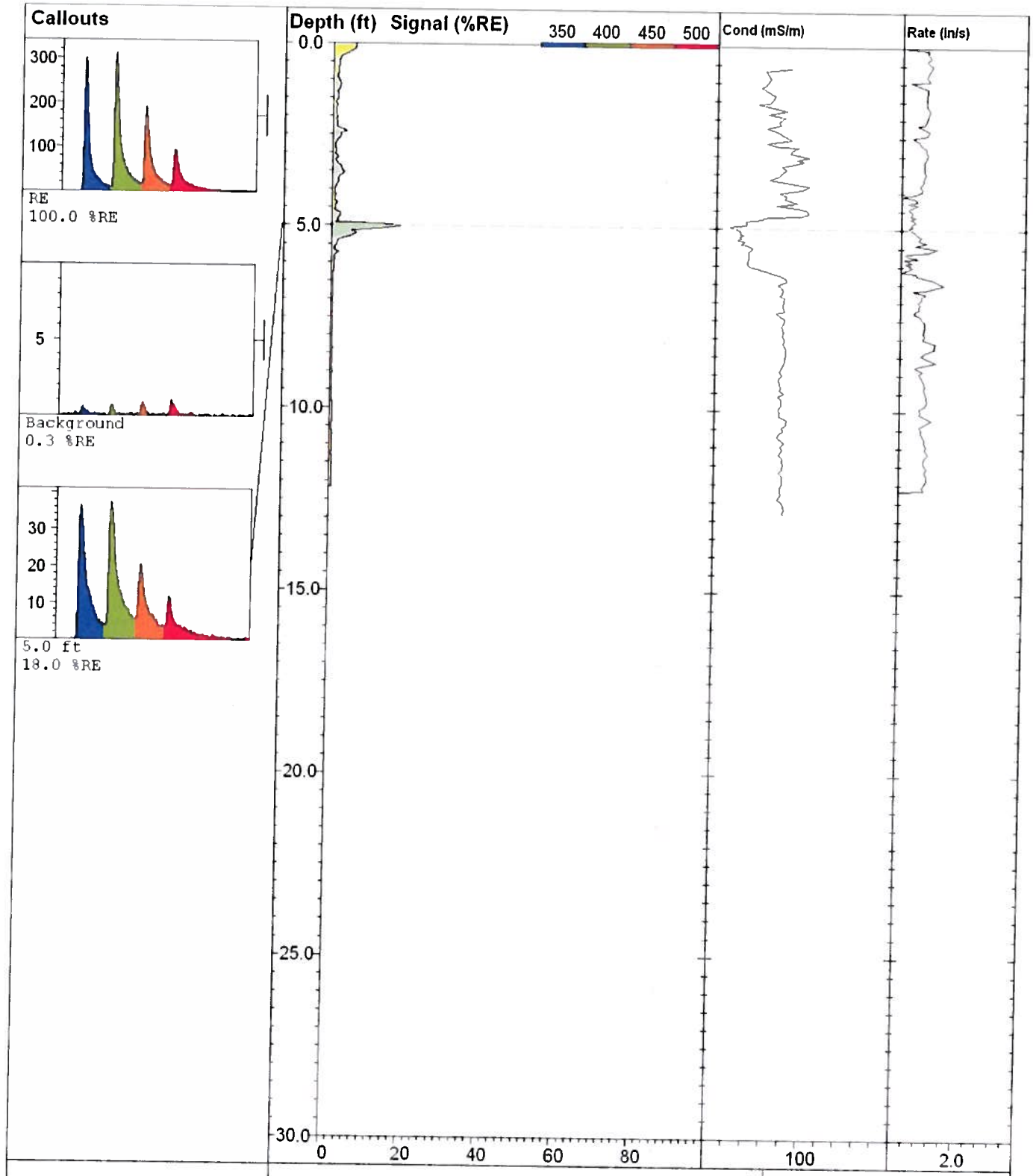
LIF-67

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **13.18 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **6.4 % @ 0.38 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 12:35 PST**



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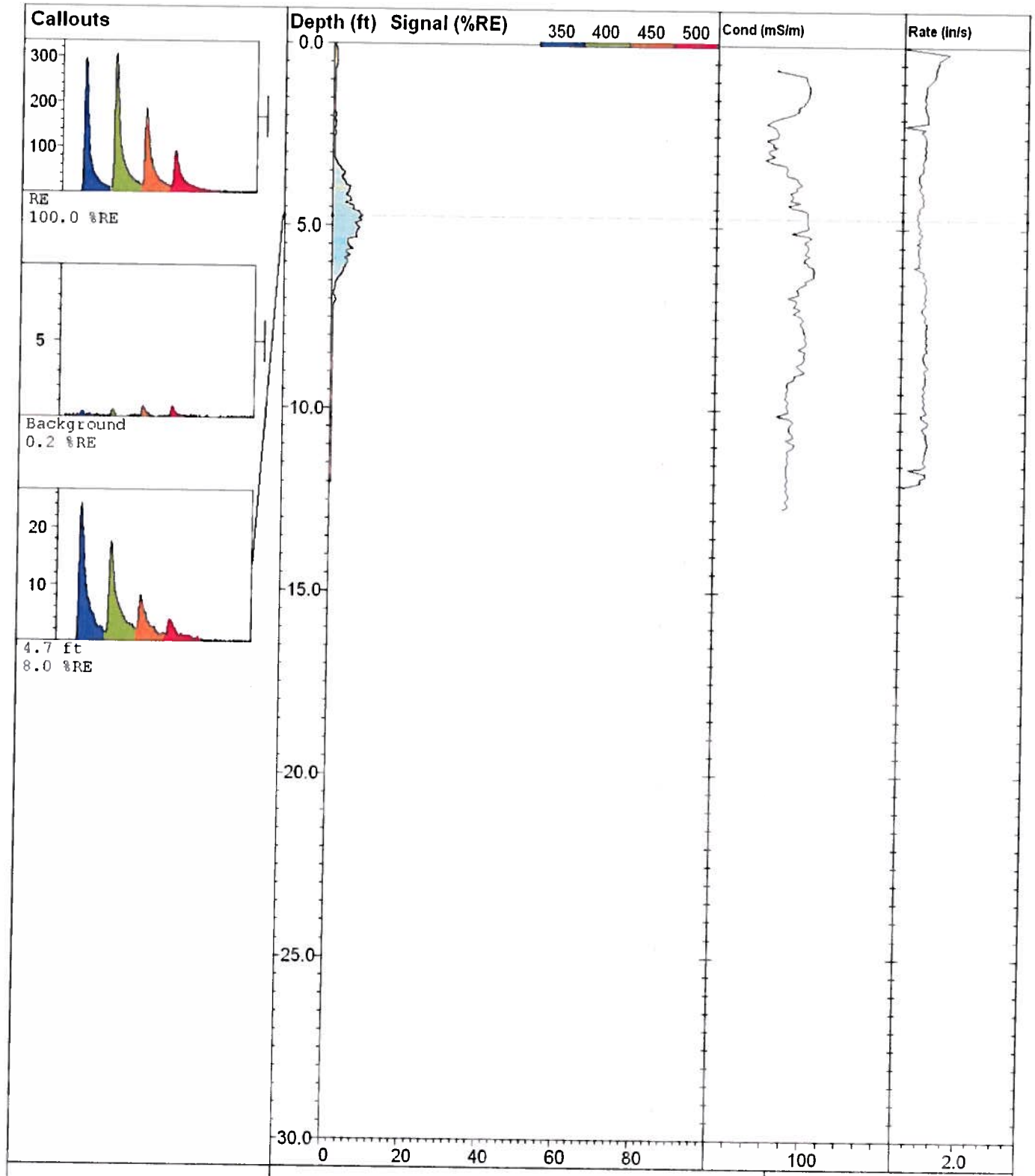
LIF-66

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.17 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **18.0 % @ 5.00 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 12:19 PST**



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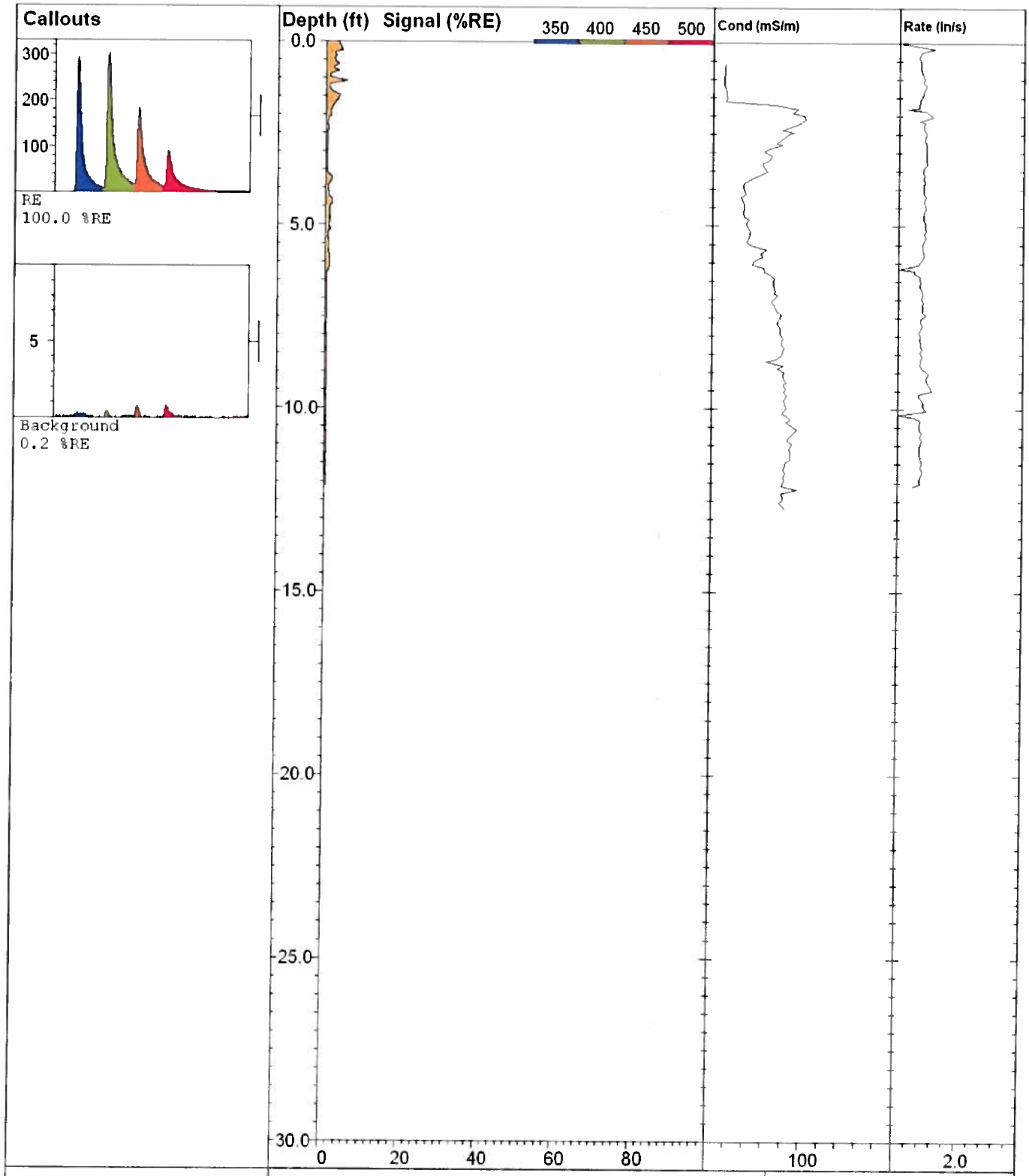
LIF-65

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.04 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **8.0 % @ 4.74 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 11:58 PST**



LIF-64		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.10 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **5.4 % @ 1.09 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 11:43 PST**

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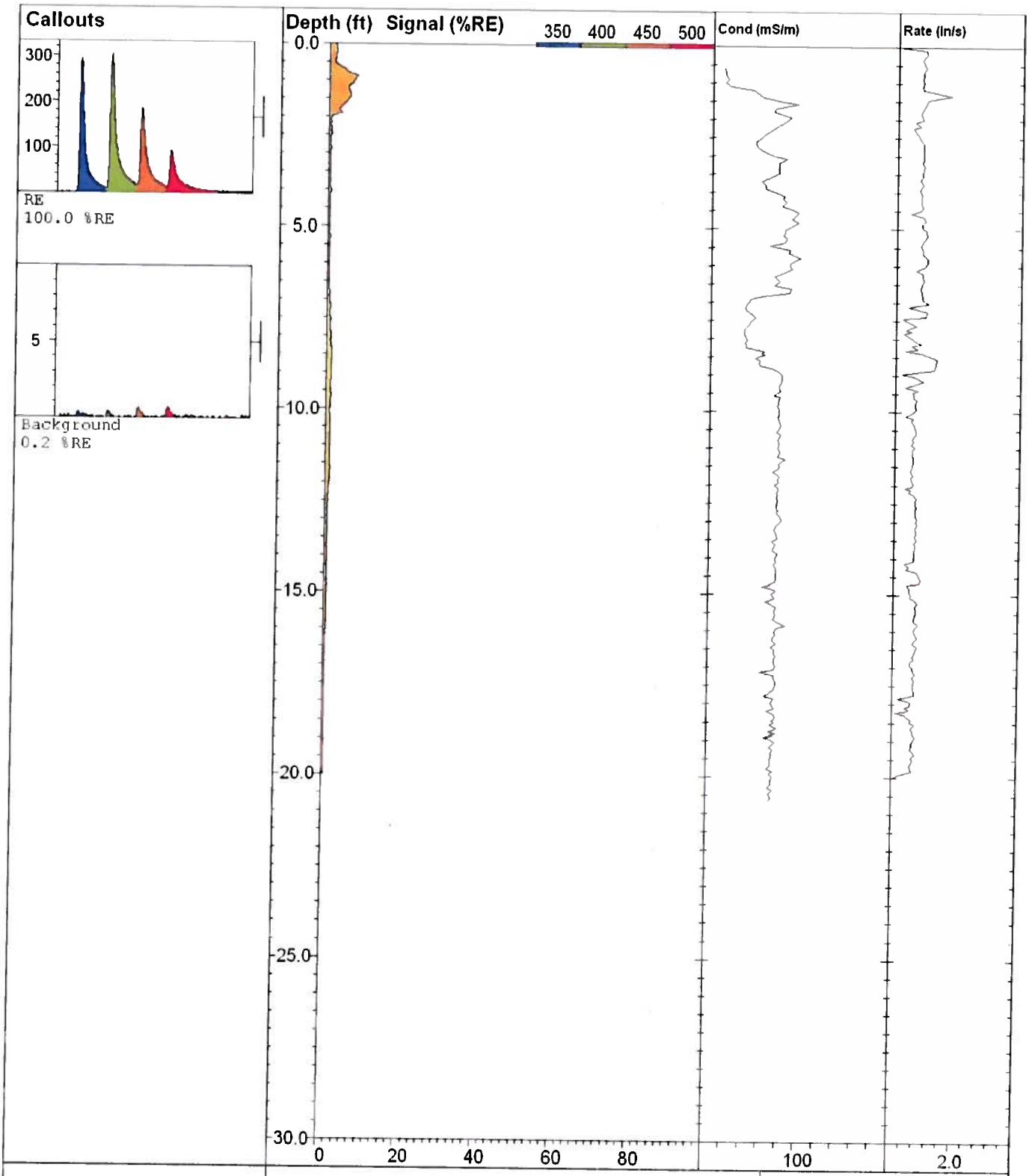

LIF-63		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **20.00 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **7.4 % @ 0.89 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 11:22 PST**

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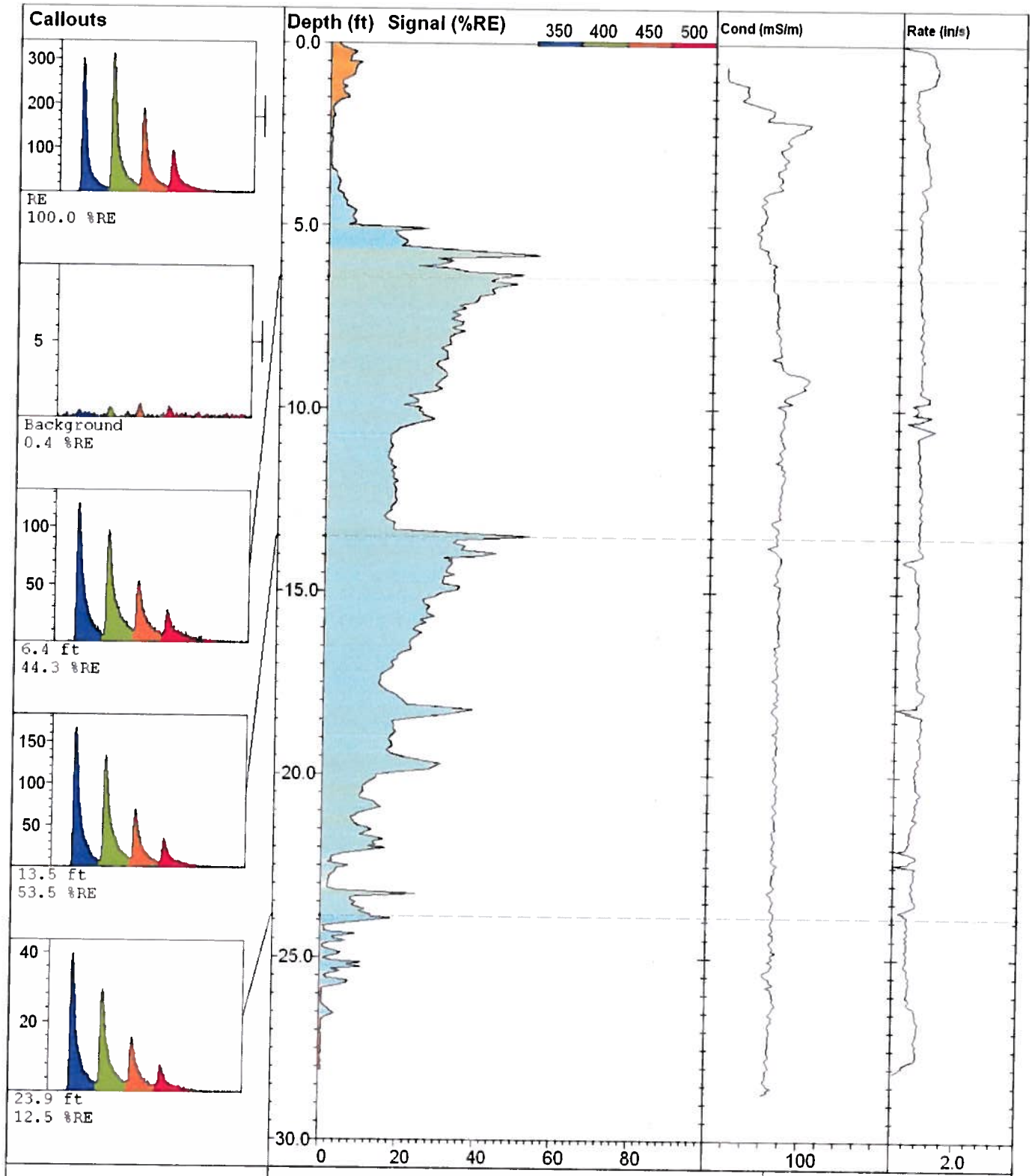

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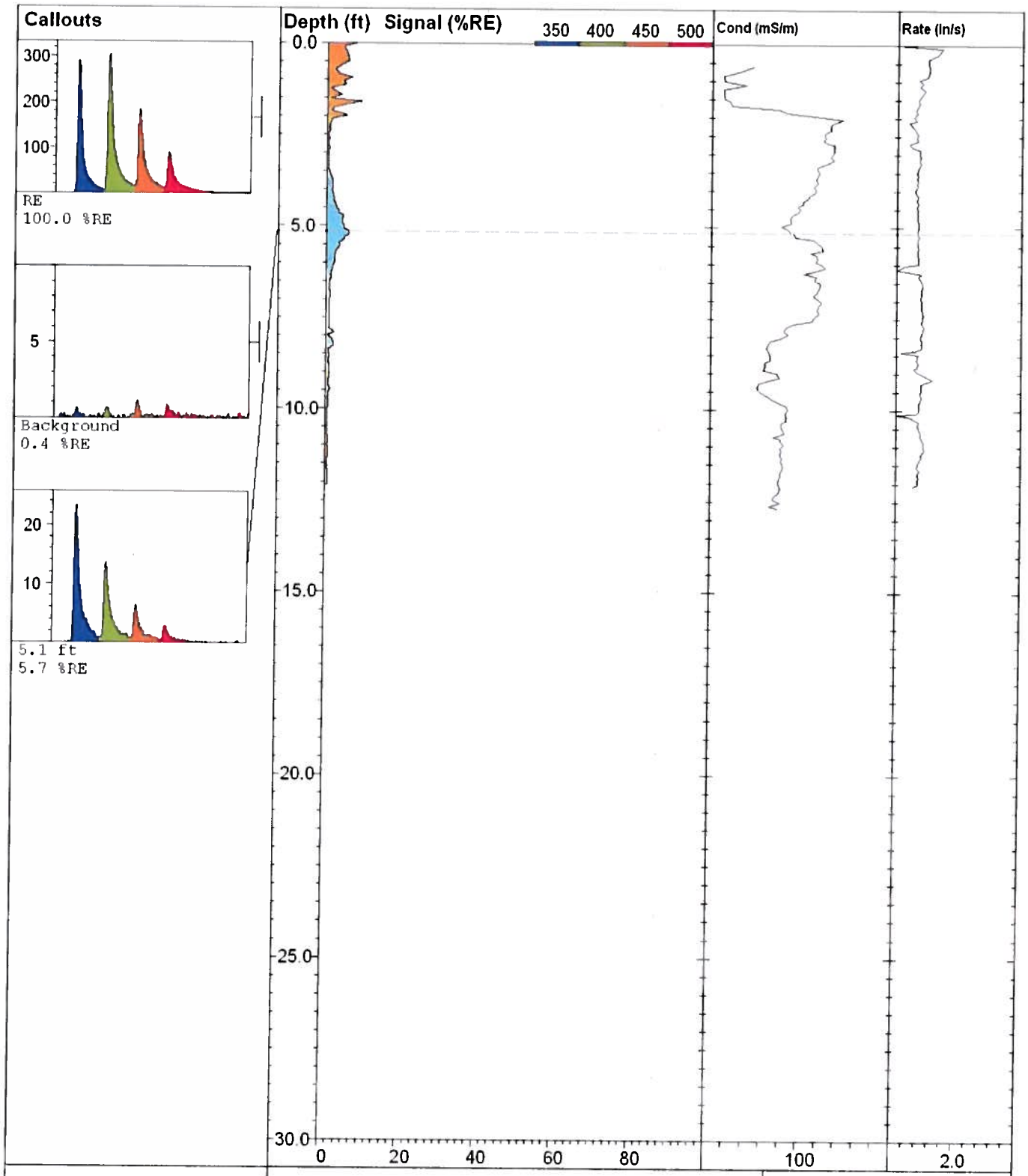
LIF-62

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **28.09 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **55.0 % @ 5.80 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 09:30 PST**



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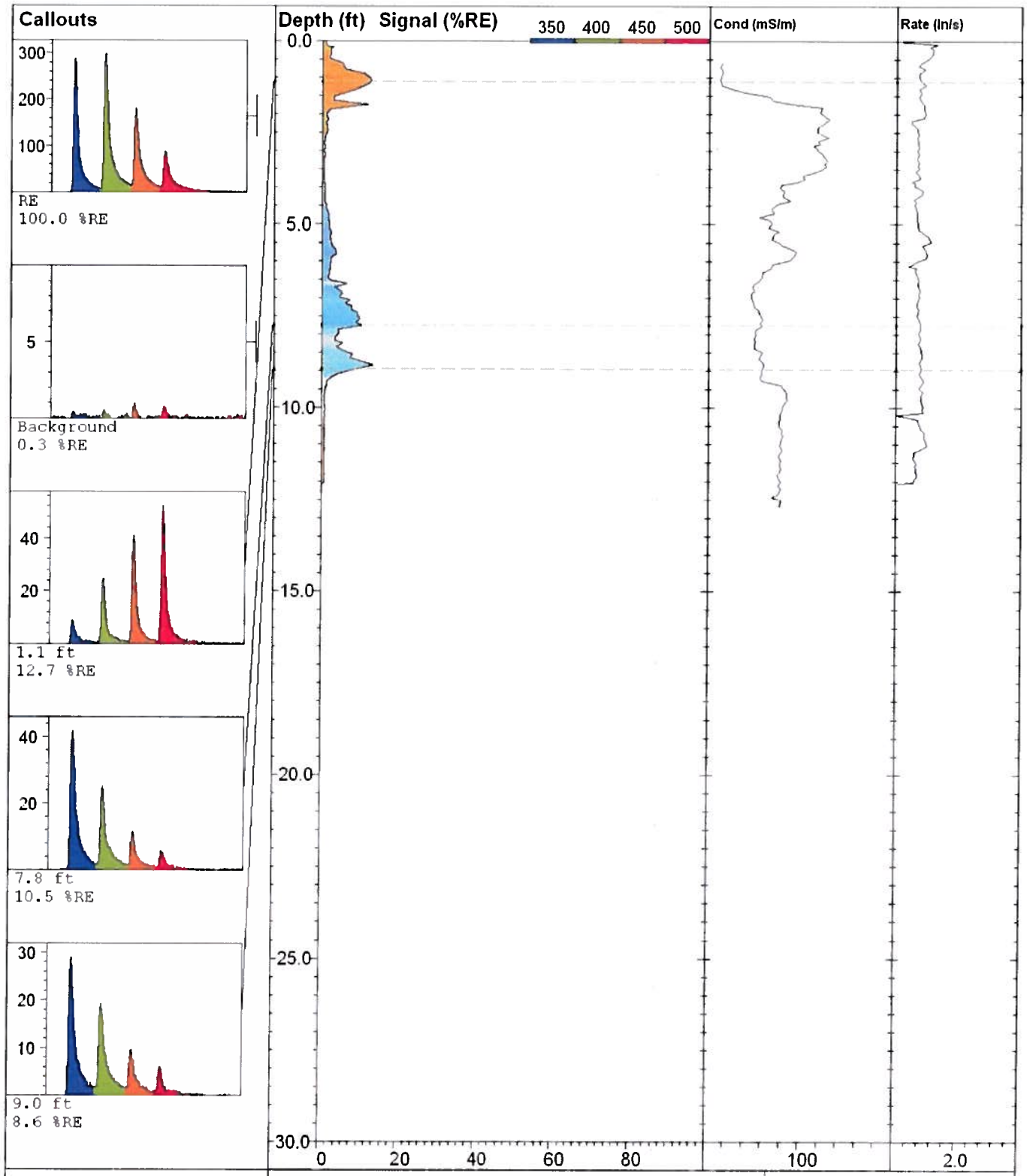
LIF-61		UVOST By Dakota www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.08 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **8.9 % @ 1.60 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 09:16 PST**

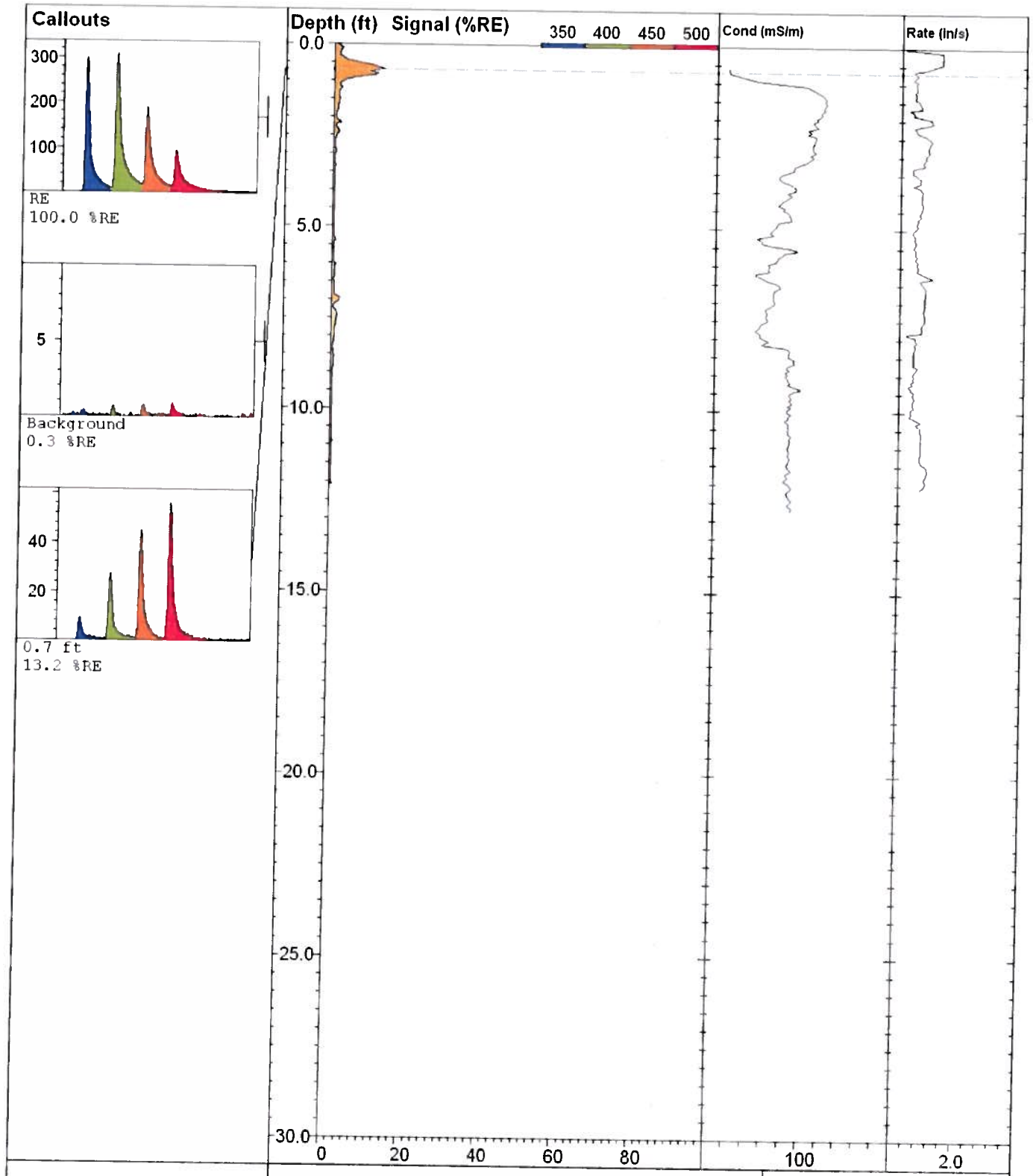


MATRIX ENVIRONMENTAL LLC

LIF-60

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.07 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **13.4 % @ 8.85 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 09:02 PST**



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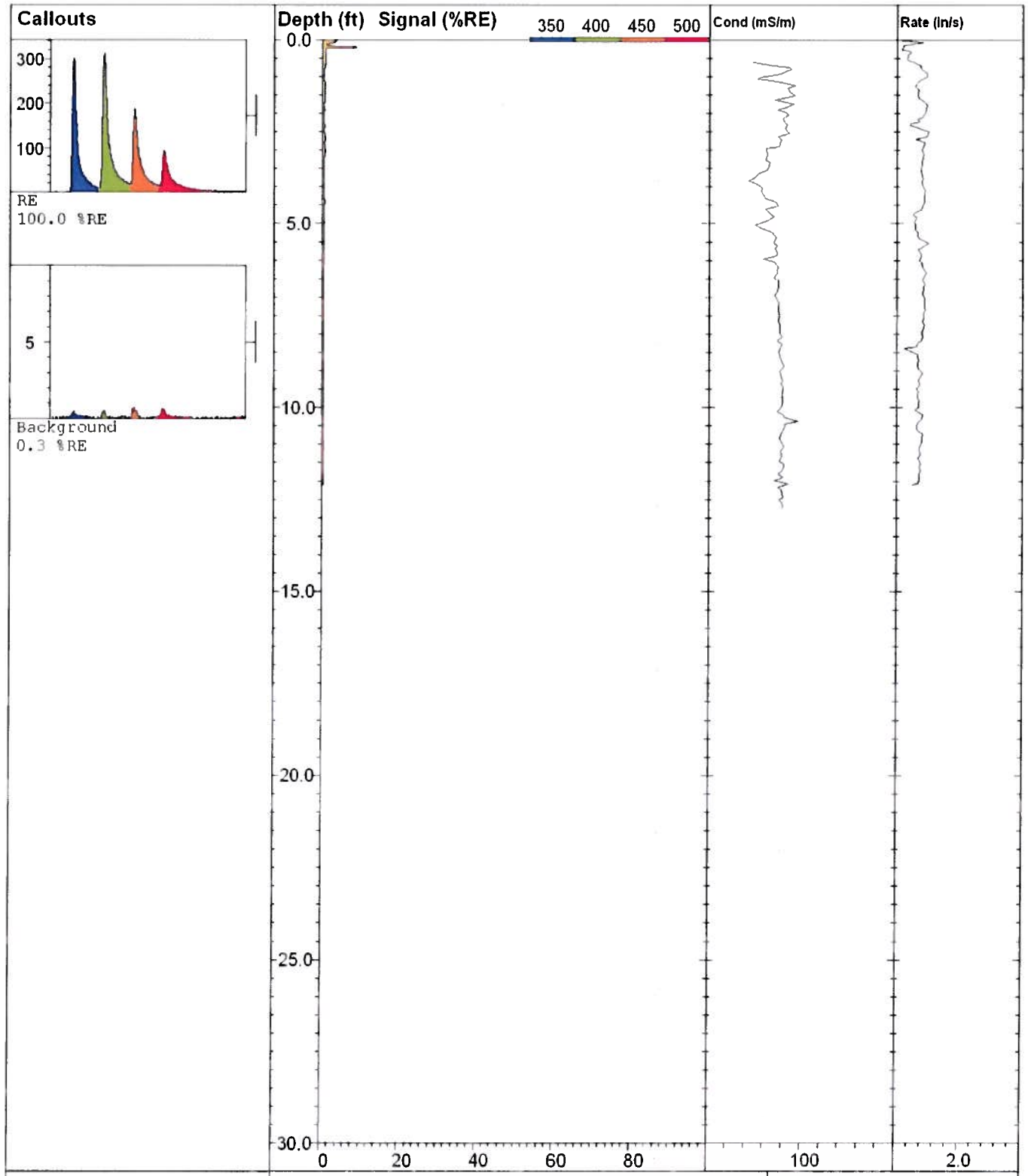
LIF-59

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.08 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **13.2 % @ 0.70 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 08:46 PST**



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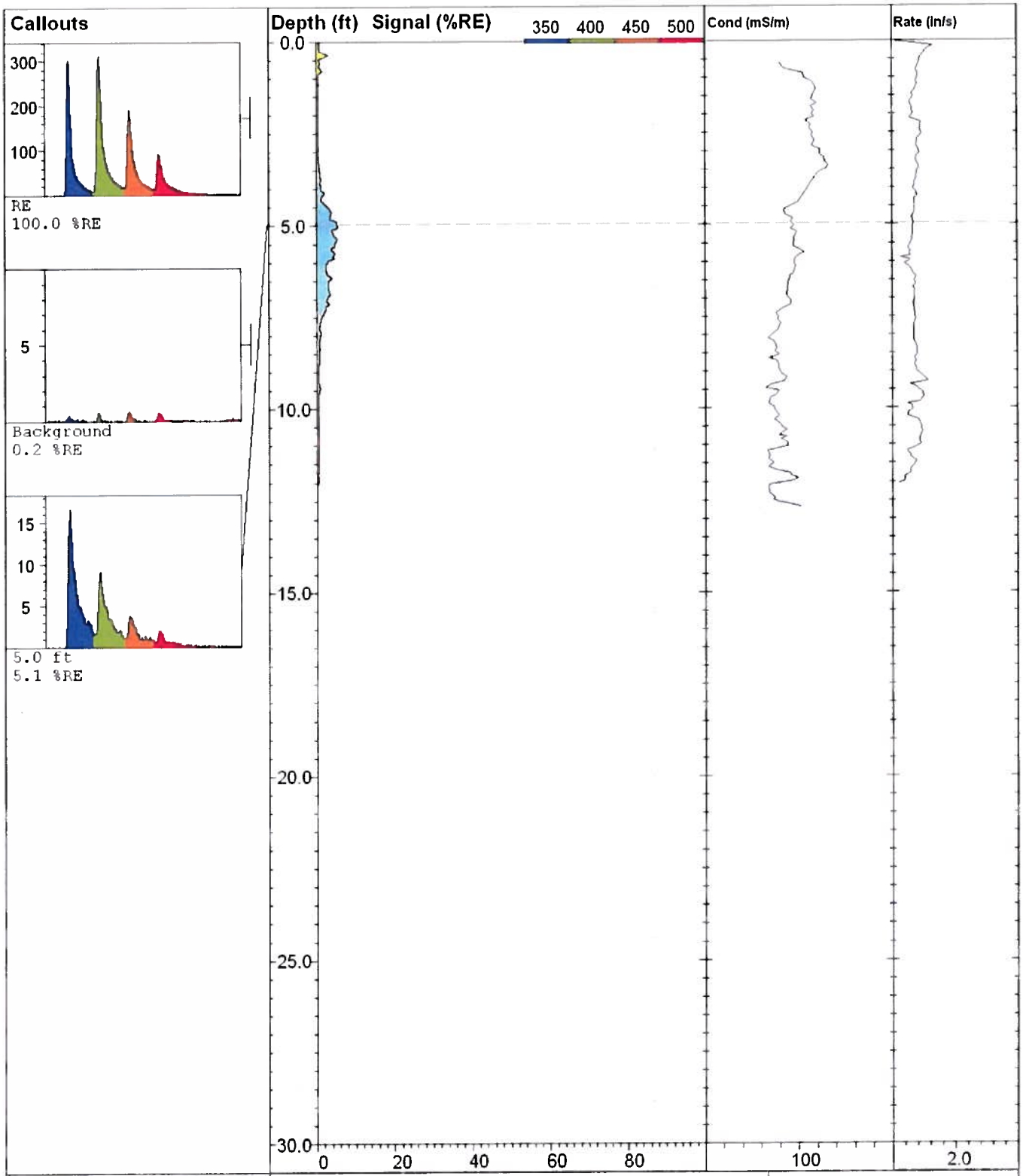
LIF-58

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.10 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **8.7 % @ 0.22 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 08:30 PST**



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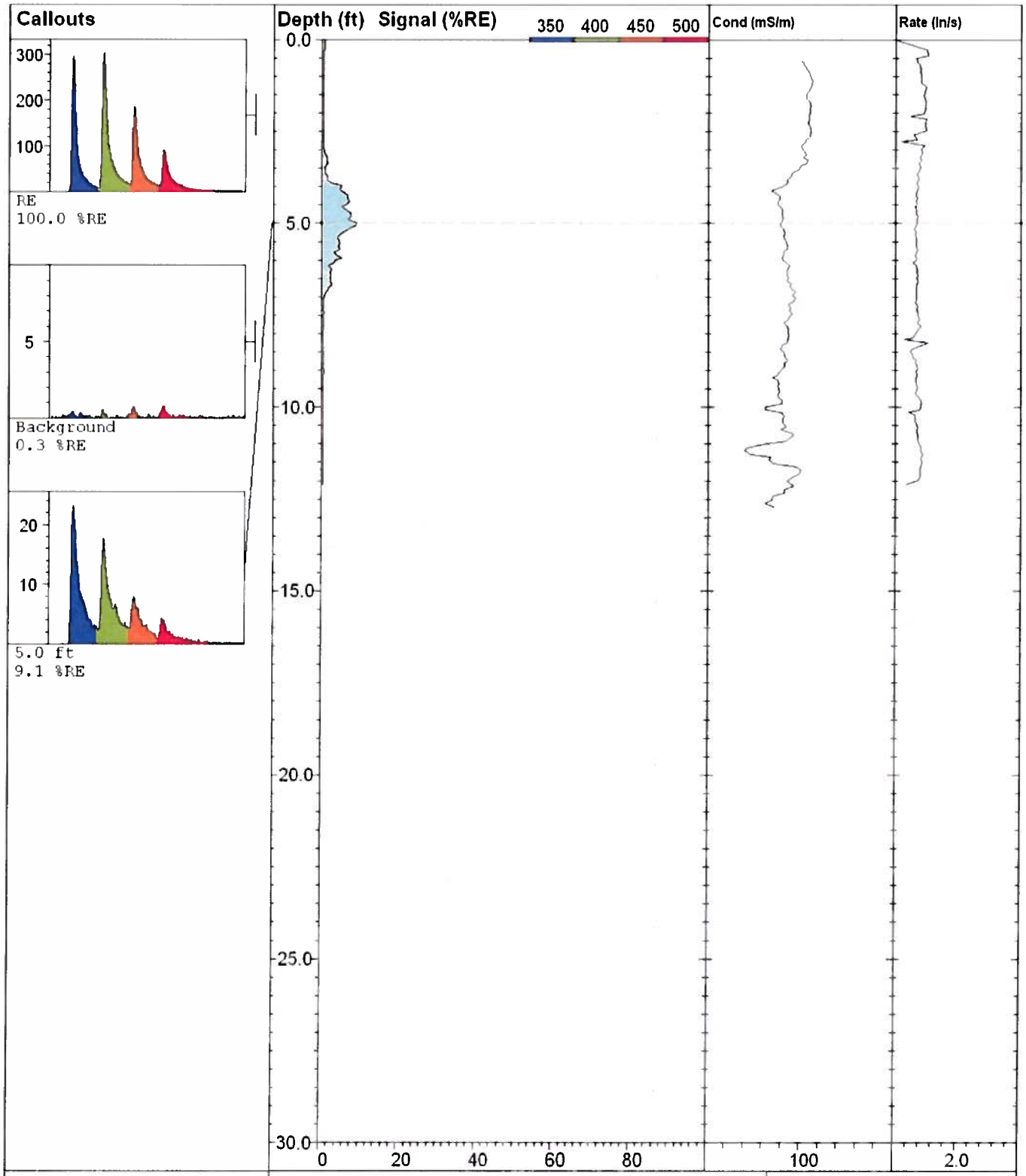
LIF-57

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.05 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **5.4 % @ 5.06 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 08:13 PST**



LIF-56

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.09 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **9.1 % @ 4.99 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 07:57 PST**

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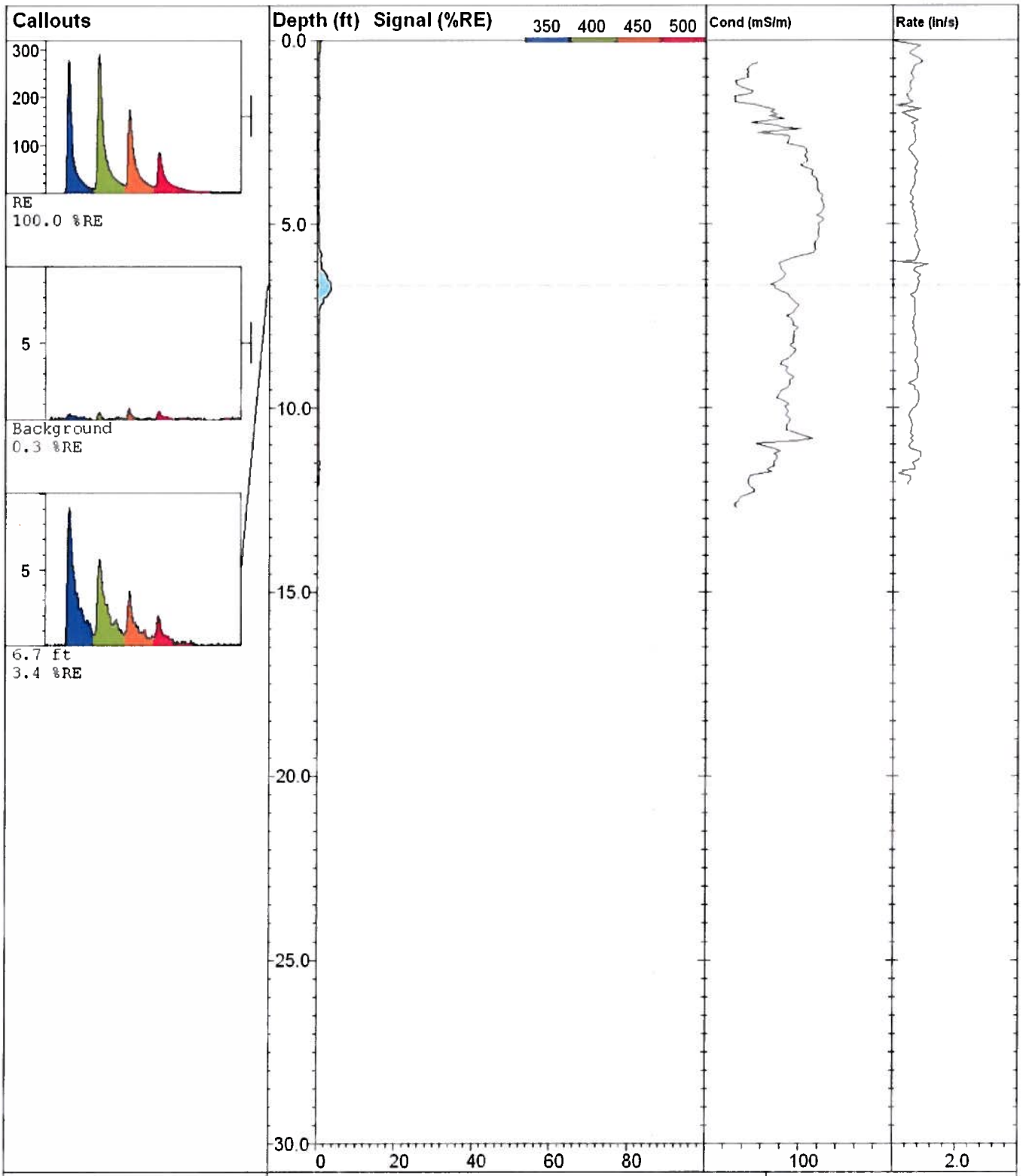

LIF-55		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.10 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **3.6 % @ 6.76 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 07:39 PST**

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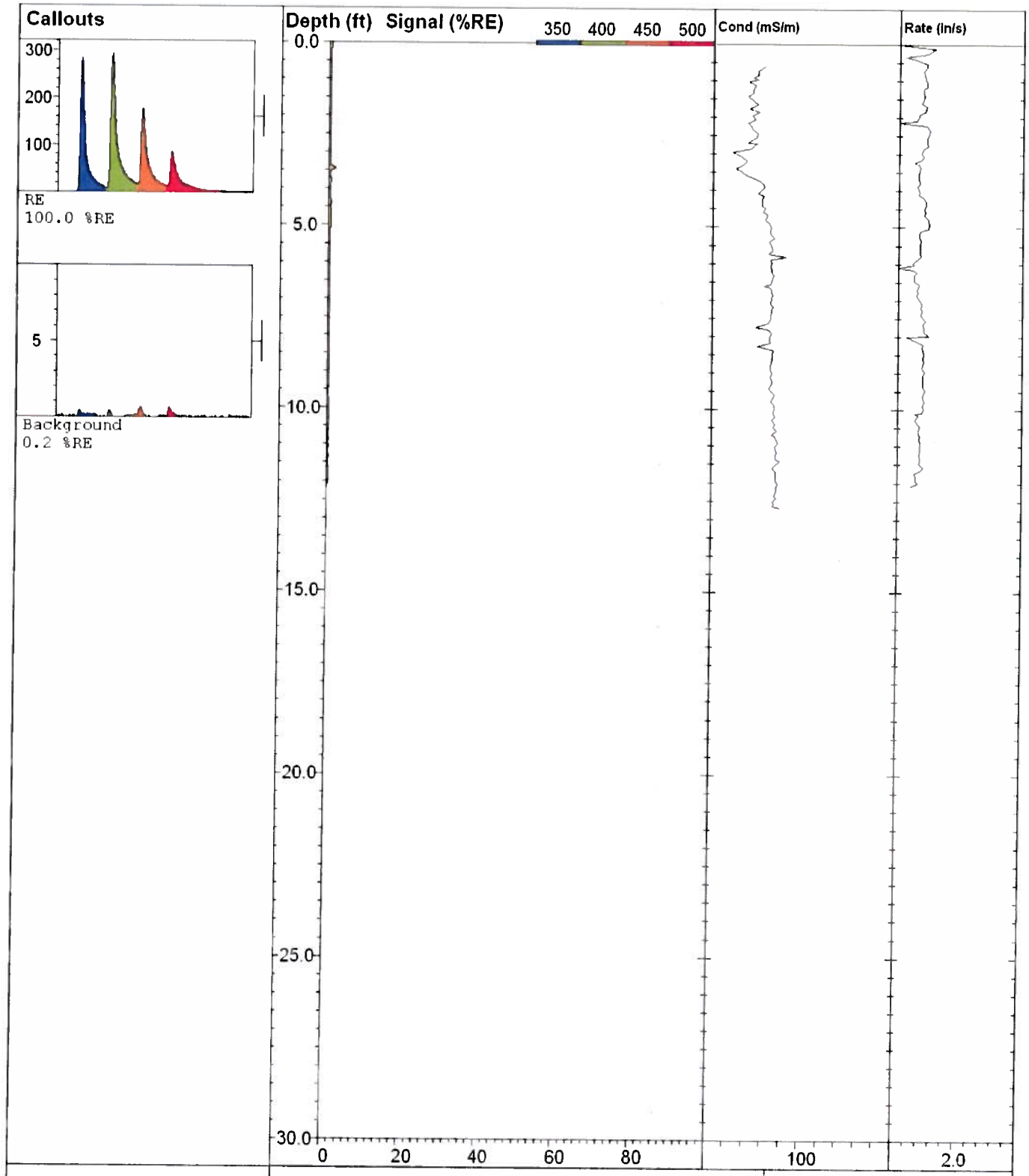

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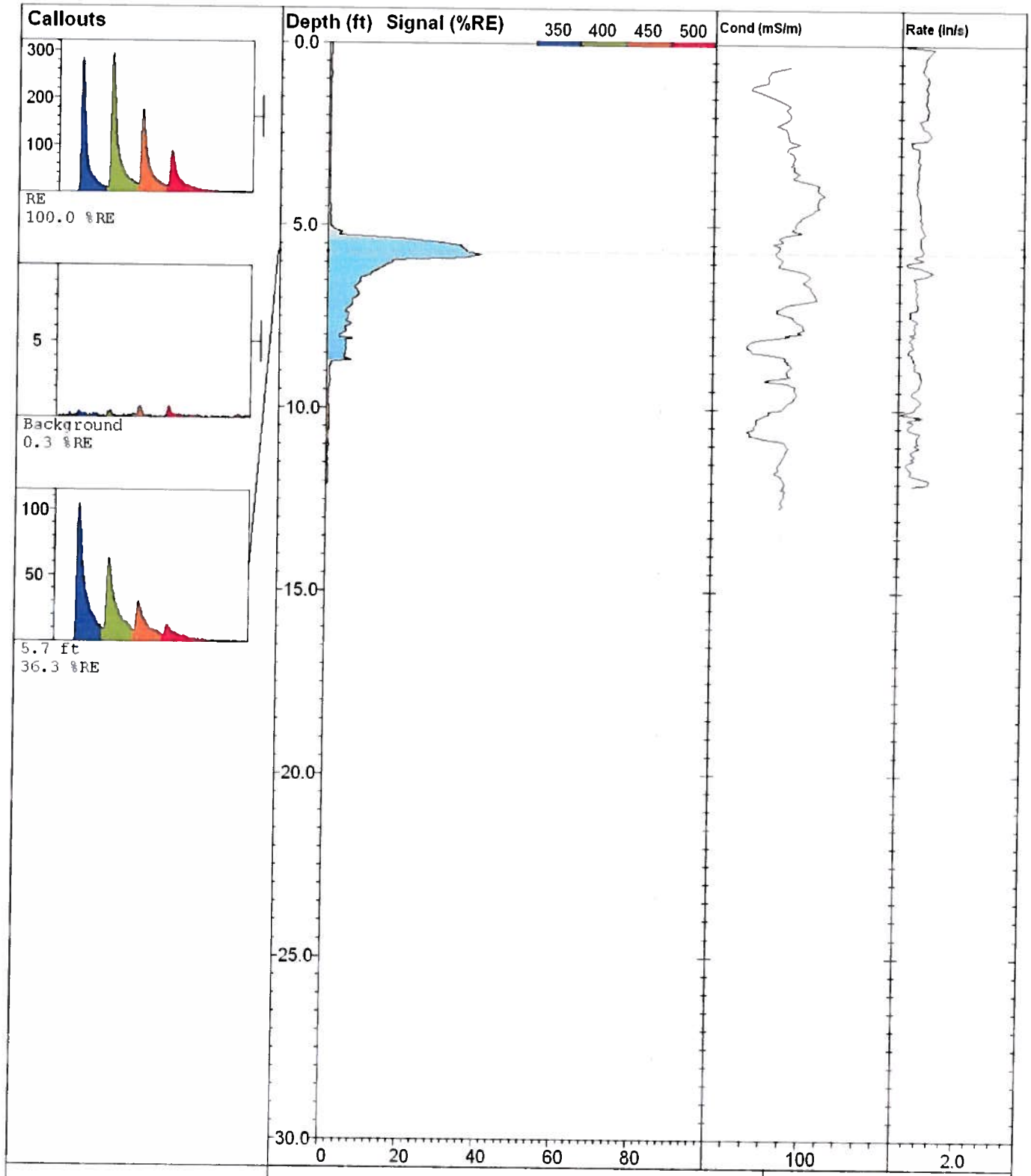
LIF-54

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.08 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **1.9 % @ 3.45 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 07:25 PST**



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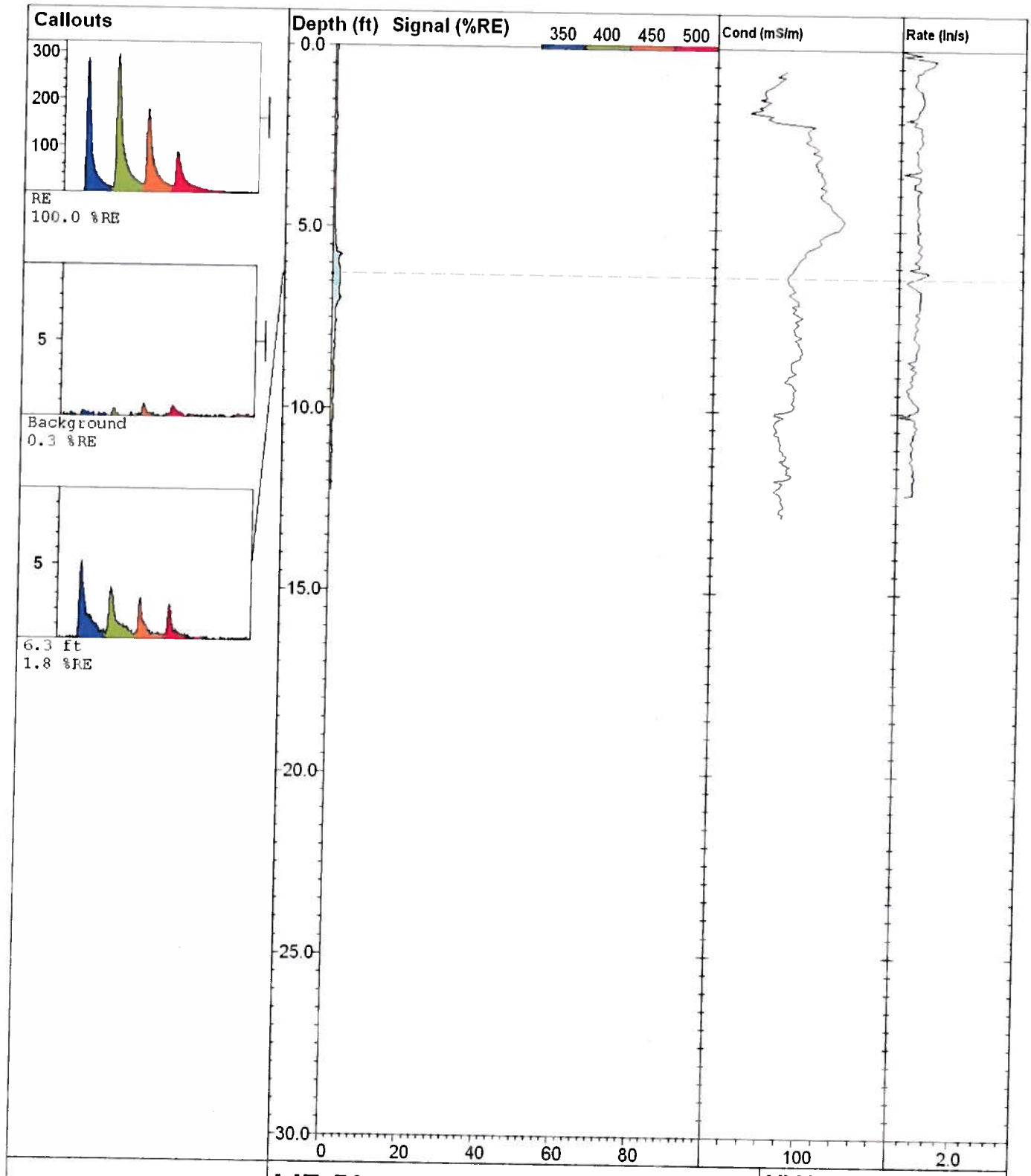
LIF-53		UVOST By Dakota www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.07 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **39.8 % @ 5.79 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 07:11 PST**



LIF-52		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.27 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **2.3 % @ 5.77 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 06:52 PST**

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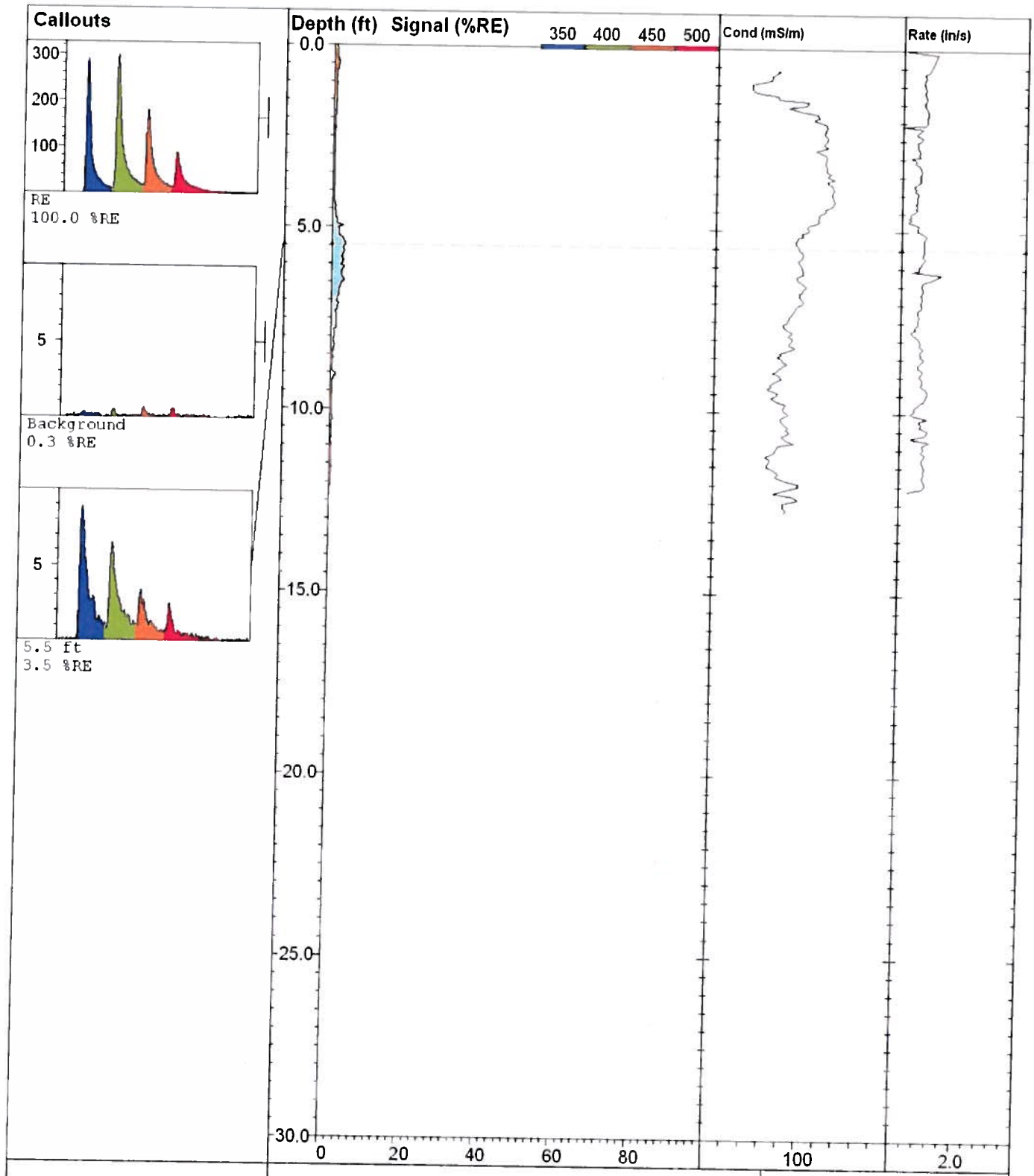

LIF-51		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.12 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **3.5 % @ 5.49 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 06:34 PST**

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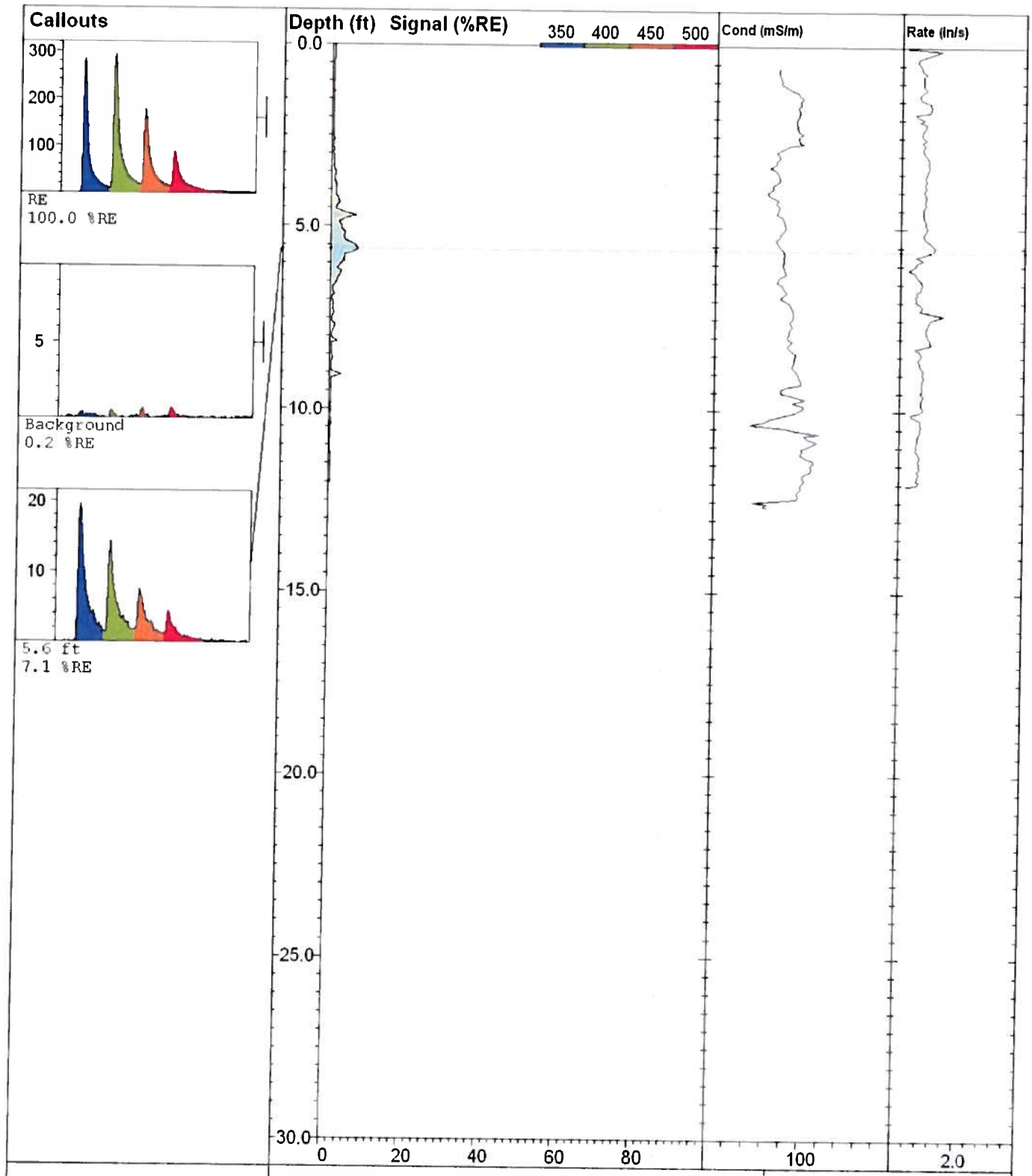

LIF-50		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.03 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **7.1 % @ 5.63 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 06:20 PST**

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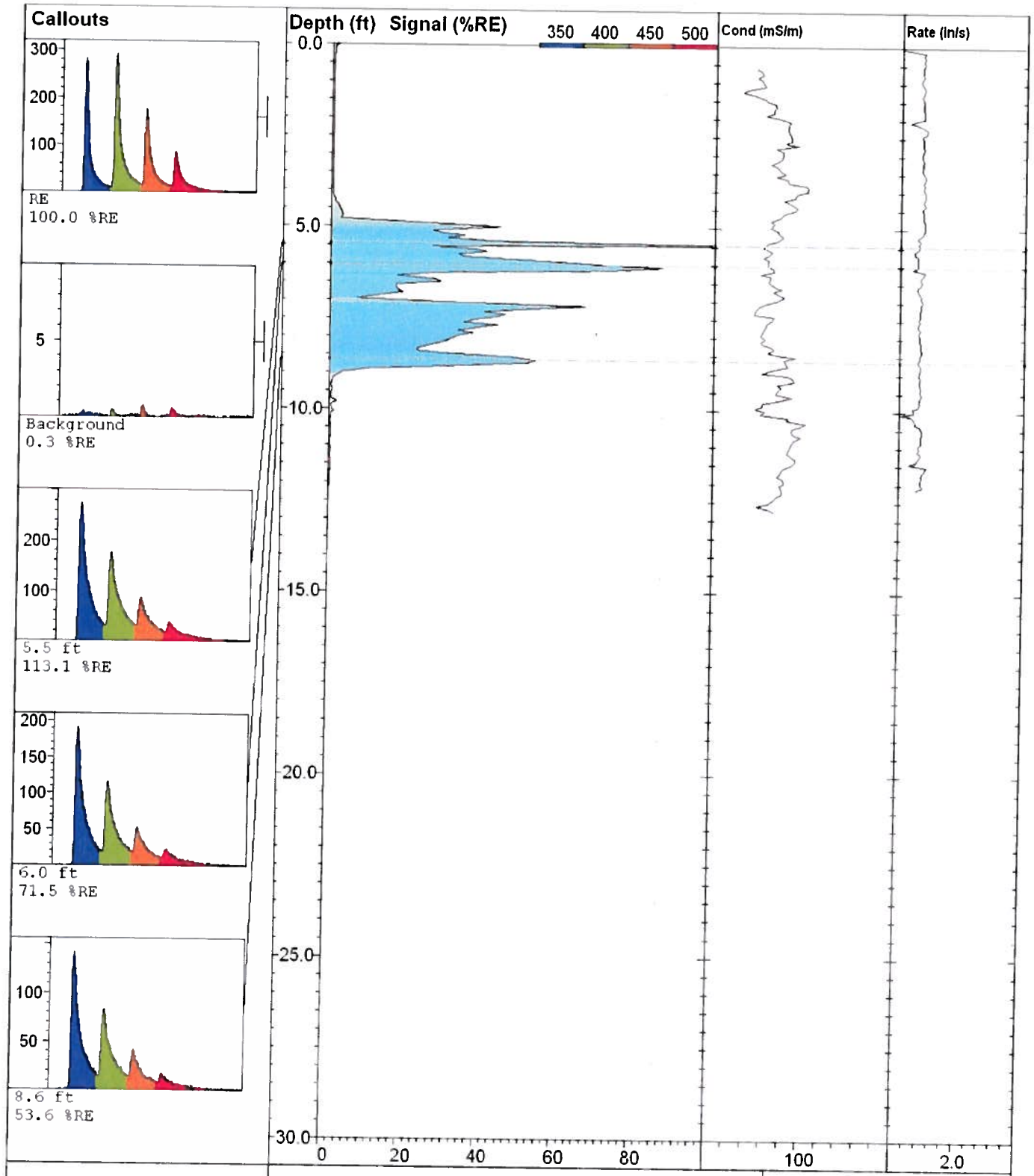

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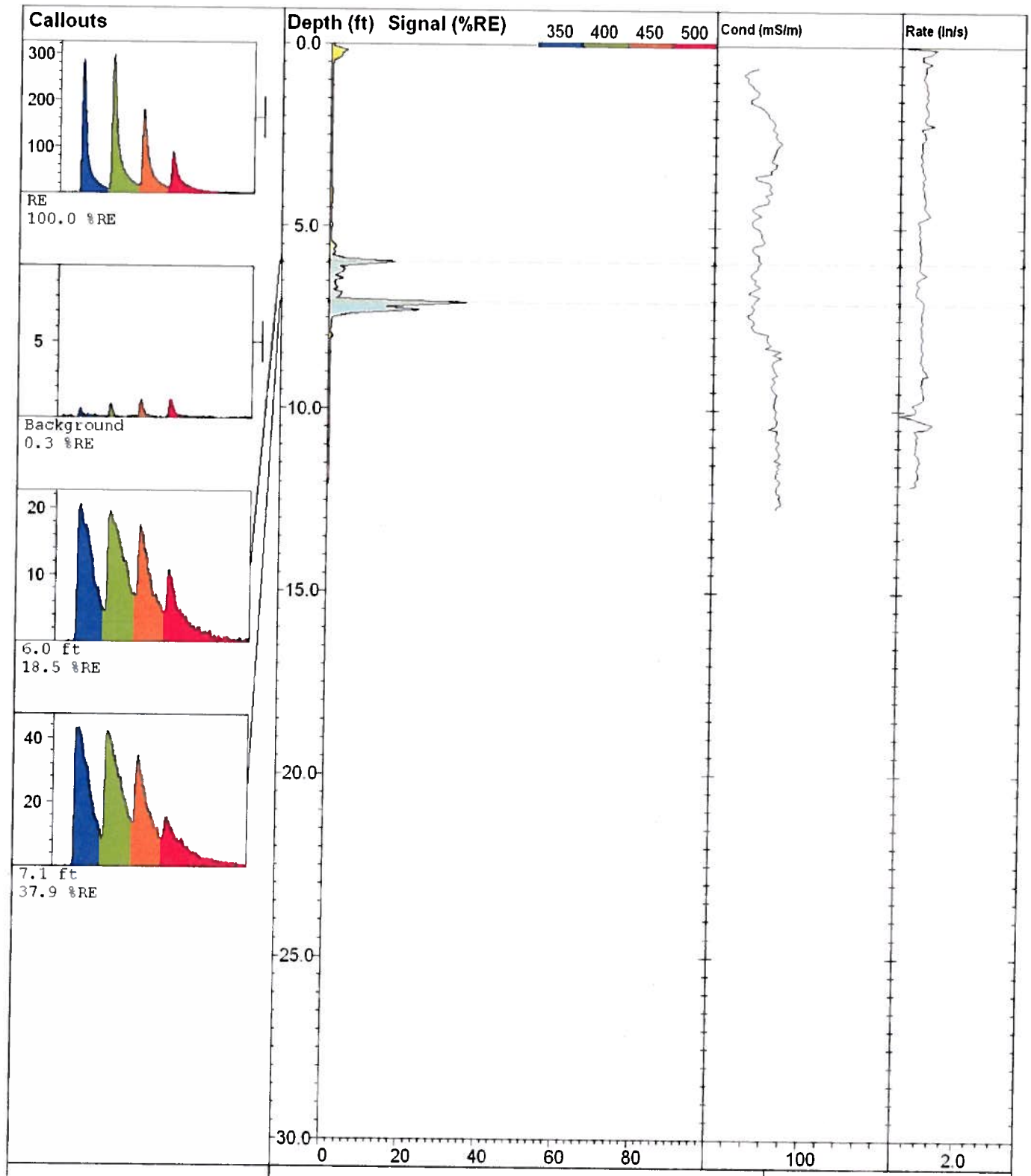
LIF-49

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.13 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **113.1 % @ 5.47 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 05:59 PST**



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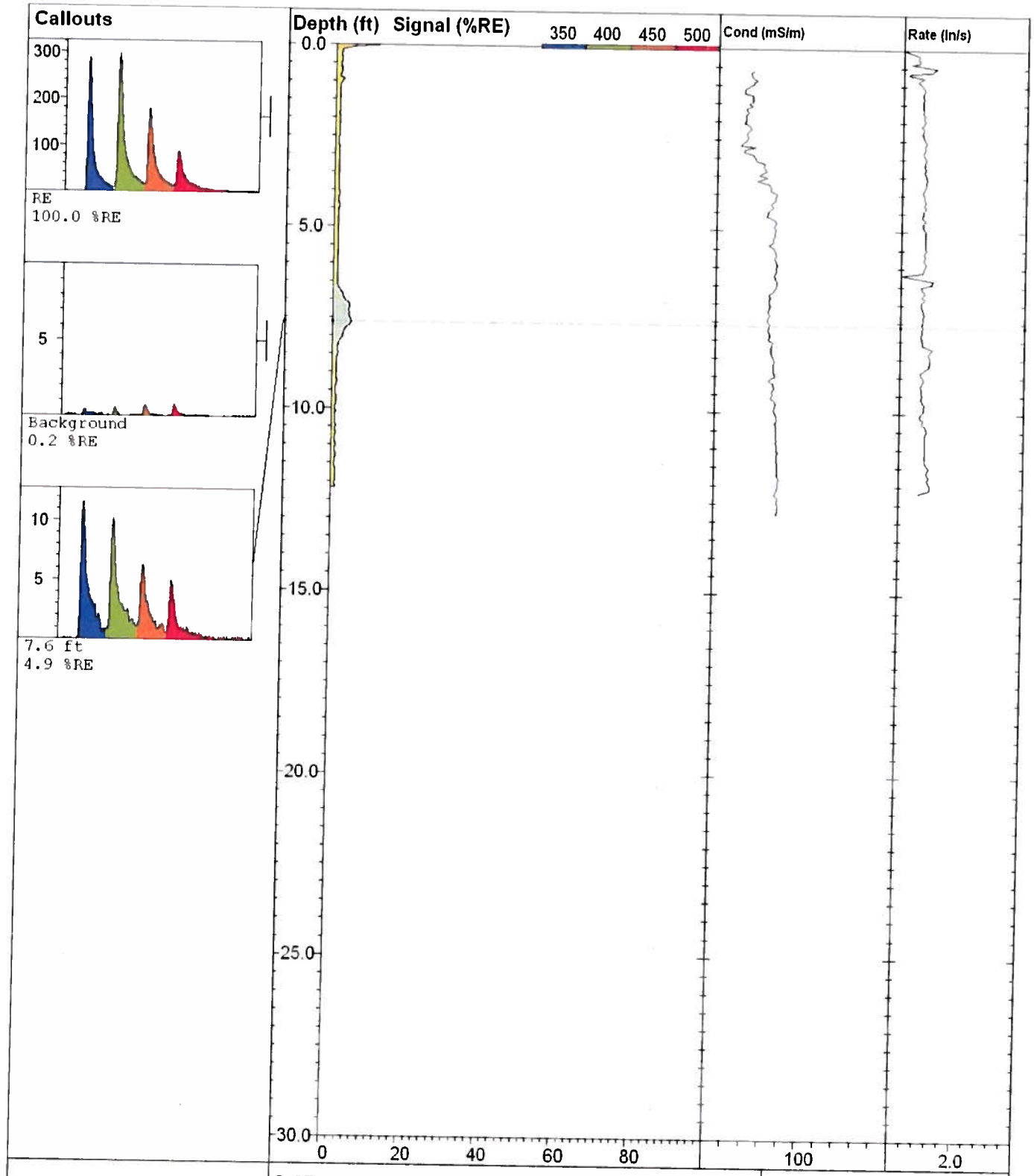
LIF-48

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.06 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **37.9 % @ 7.07 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 05:47 PST**

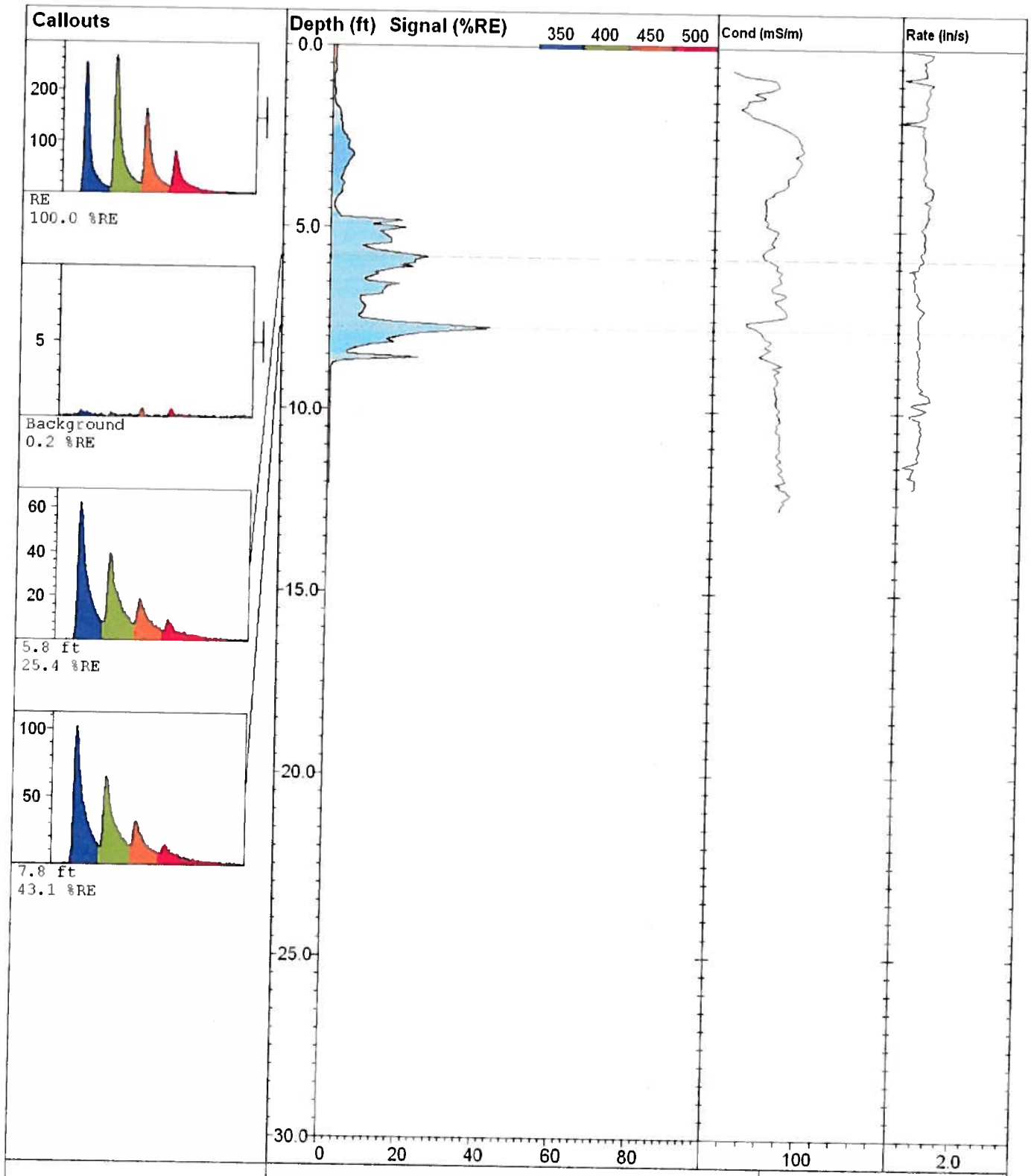


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-47

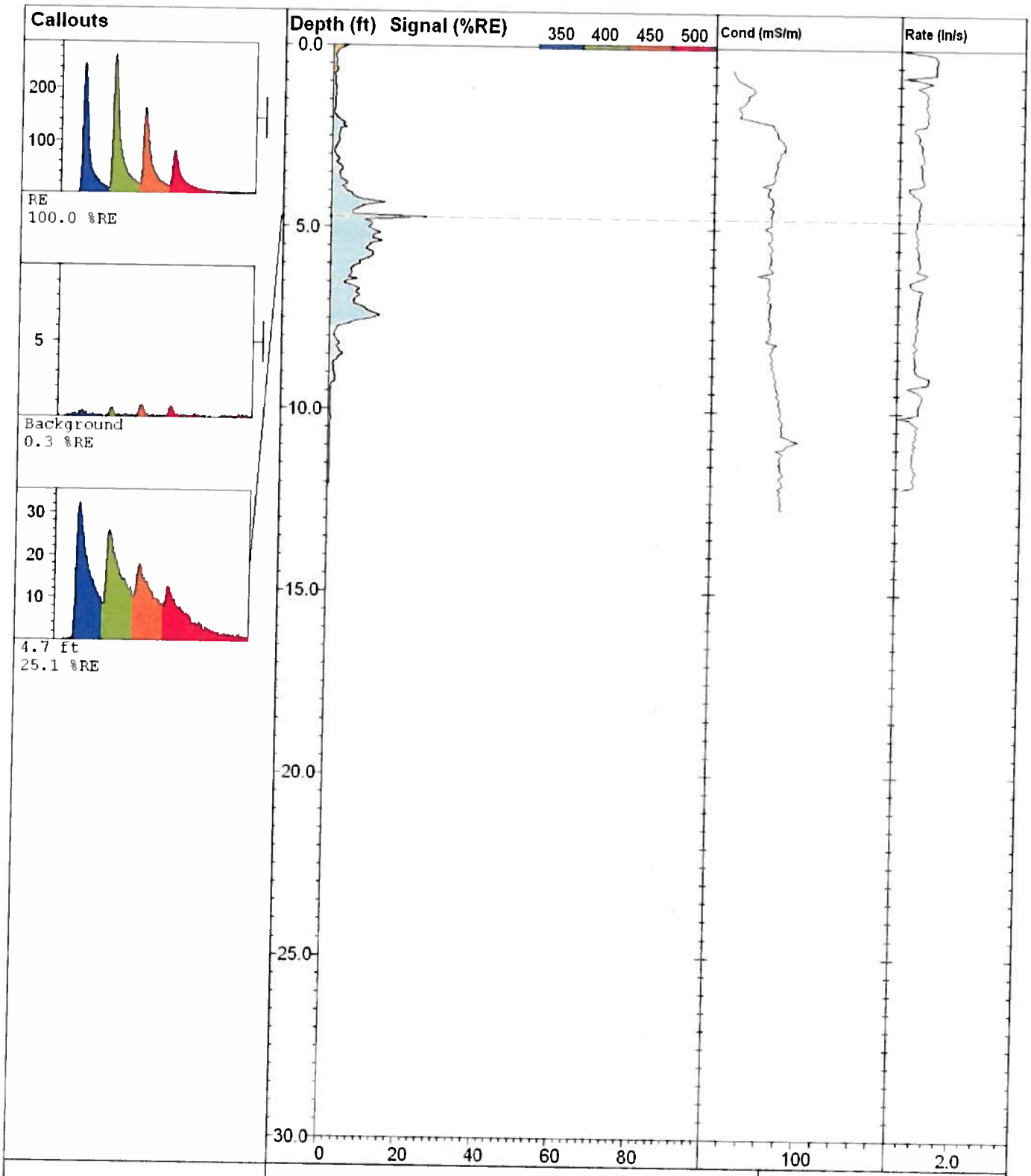
UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.18 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **13.7 % @ 0.00 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-15 05:33 PST**



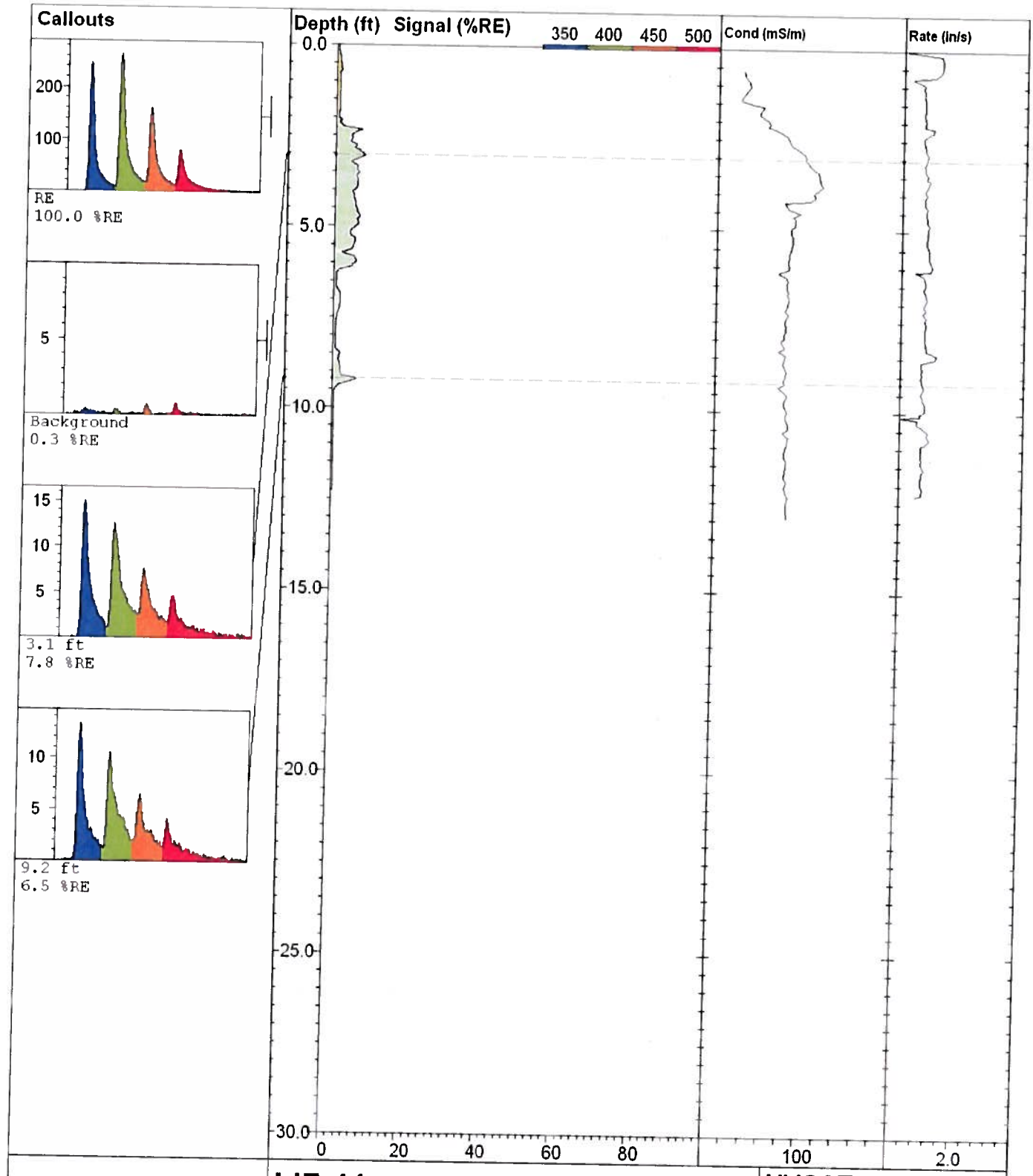
LIF-46		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.06 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **43.1 % @ 7.75 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 13:25 PST**

MATRIX ENVIRONMENTAL LLC



LIF-45		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.05 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **25.1 % @ 4.71 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 13:09 PST**

MATRIX ENVIRONMENTAL LLC

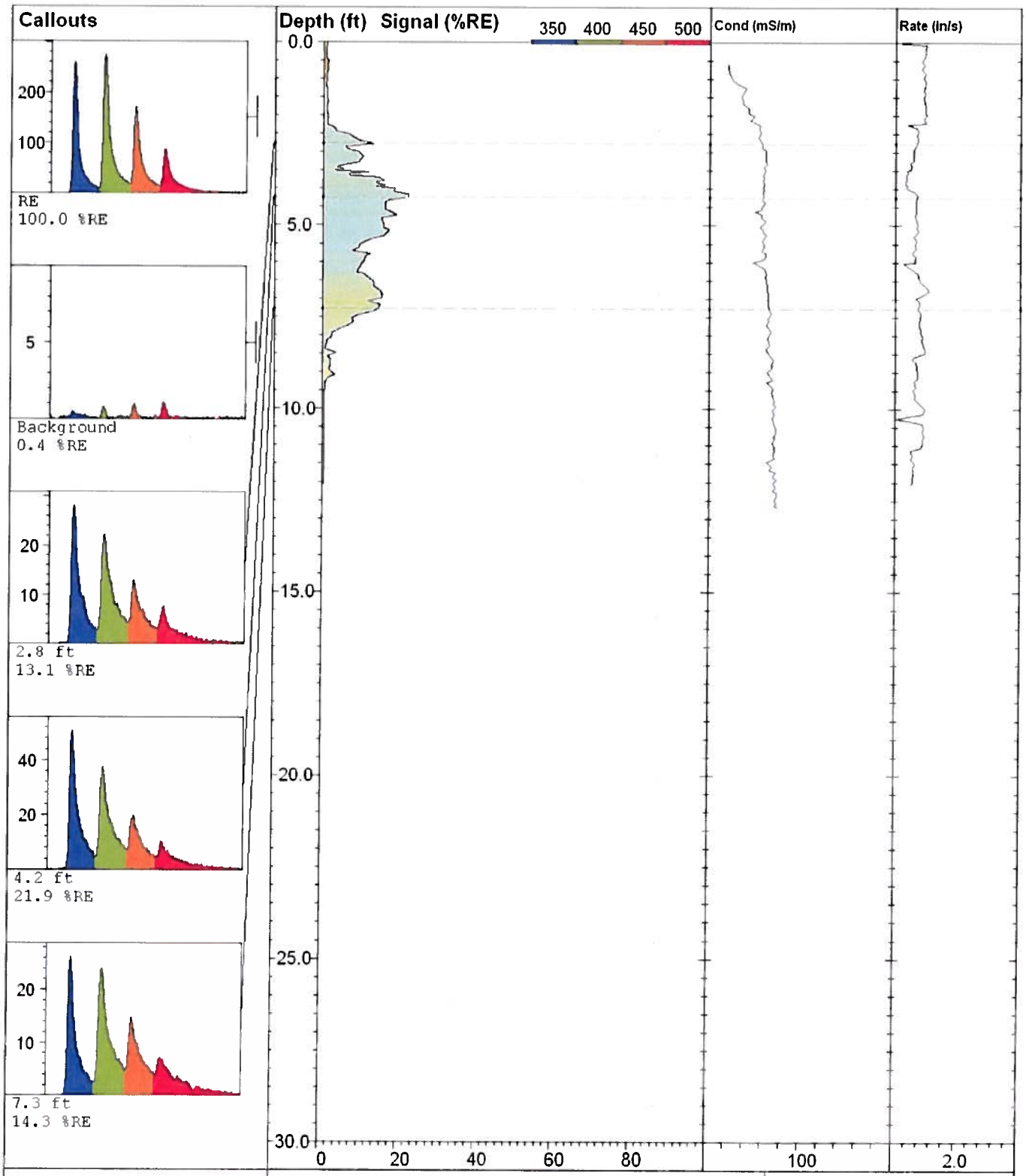


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-44

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.29 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **7.8 % @ 3.05 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 12:55 PST**

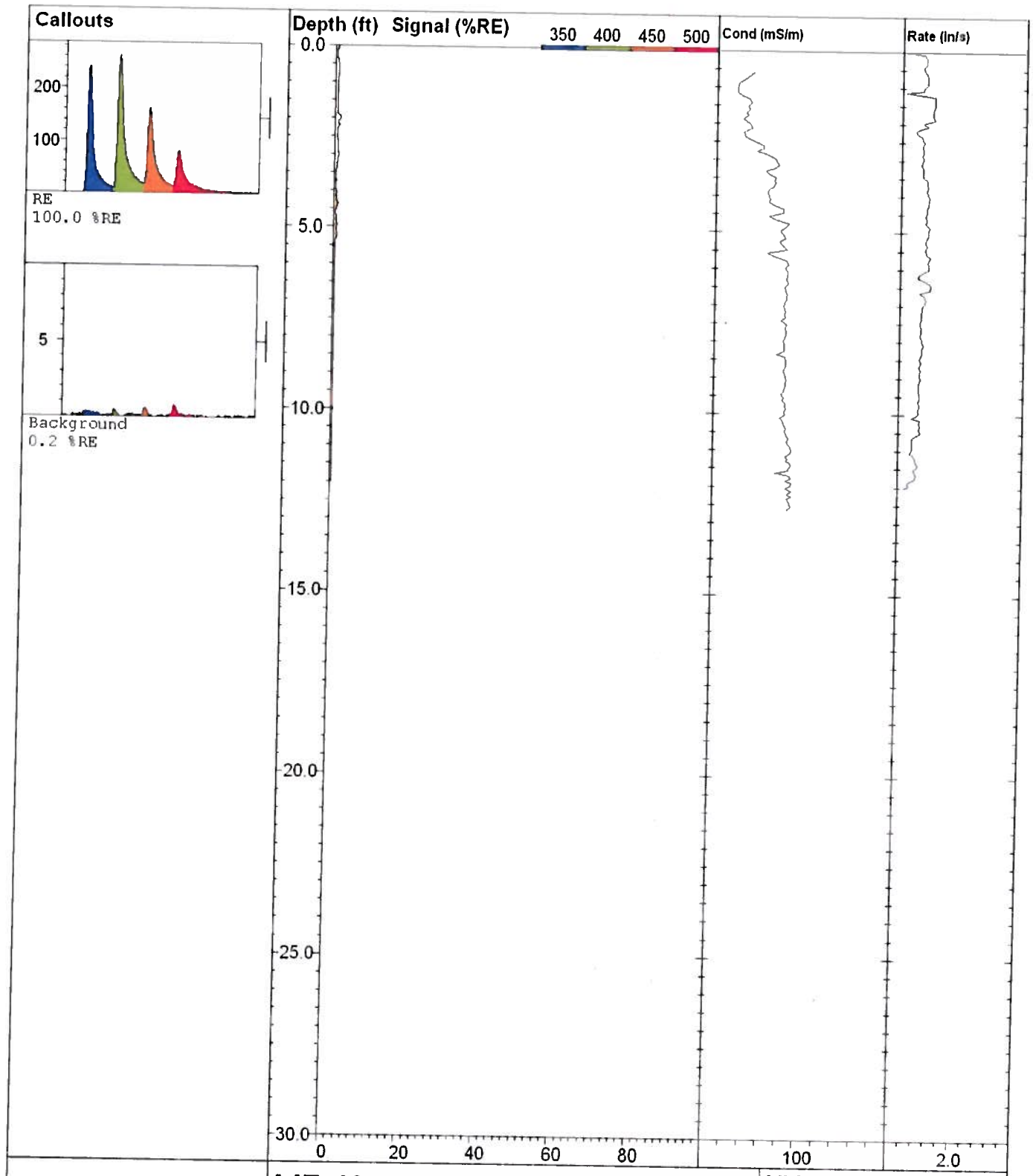


MATRIX ENVIRONMENTAL LLC

LIF-43

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.06 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **21.9 % @ 4.24 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 12:38 PST**



MATRIX ENVIRONMENTAL LLC
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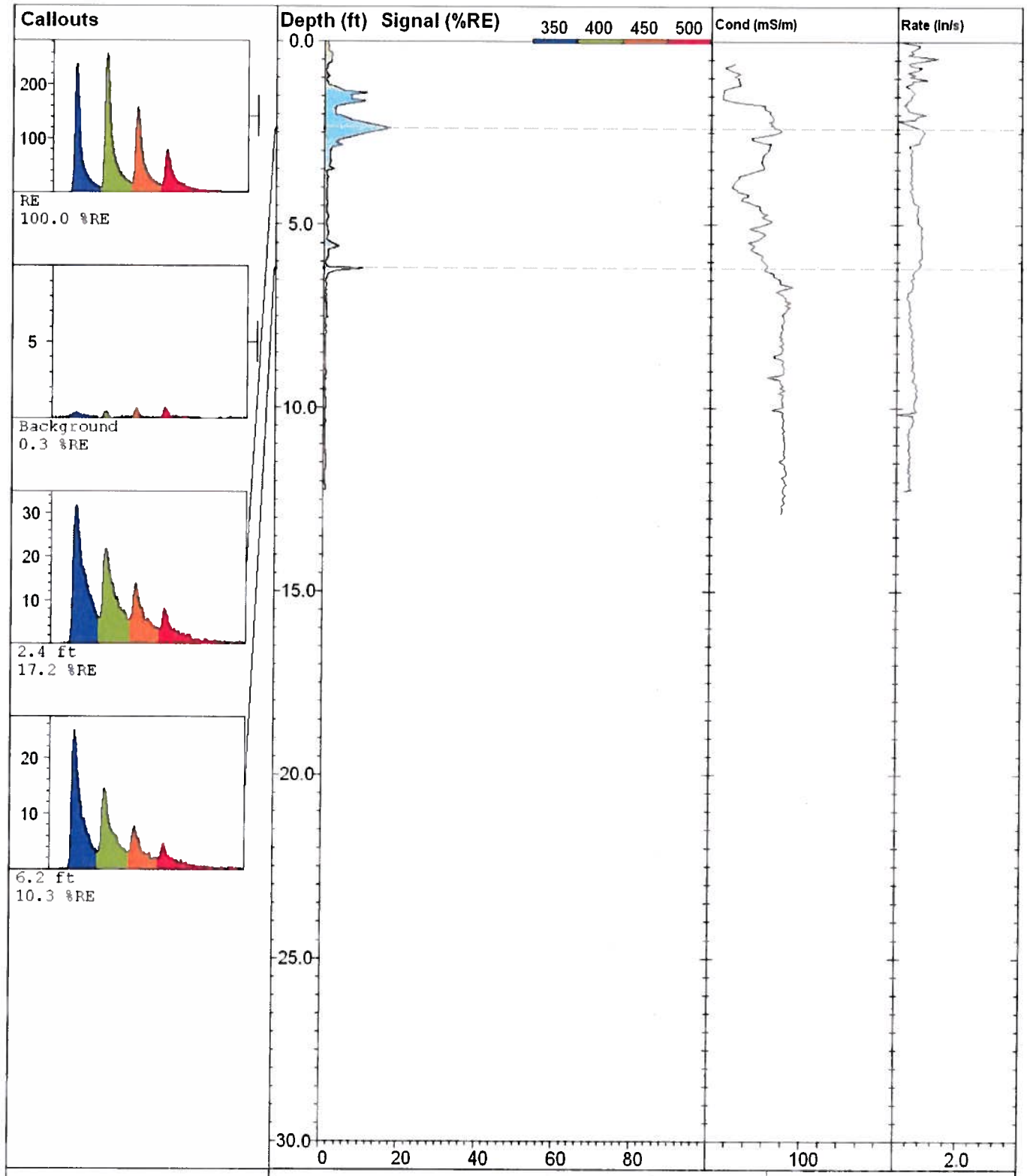
LIF-42

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.02 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **1.6 % @ 1.98 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 12:21 PST**

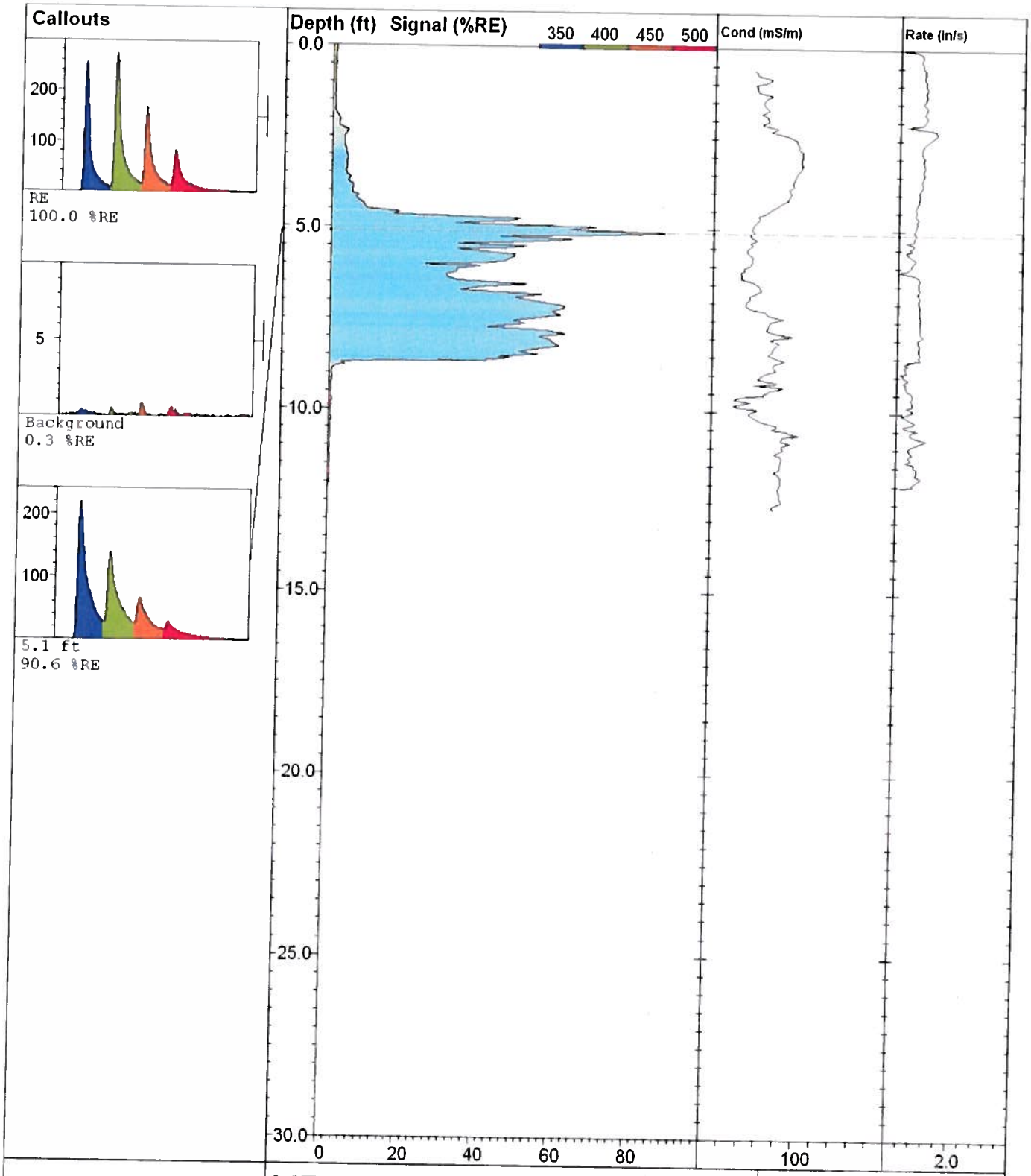


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-41

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.24 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **17.2 % @ 2.38 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 11:56 PST**

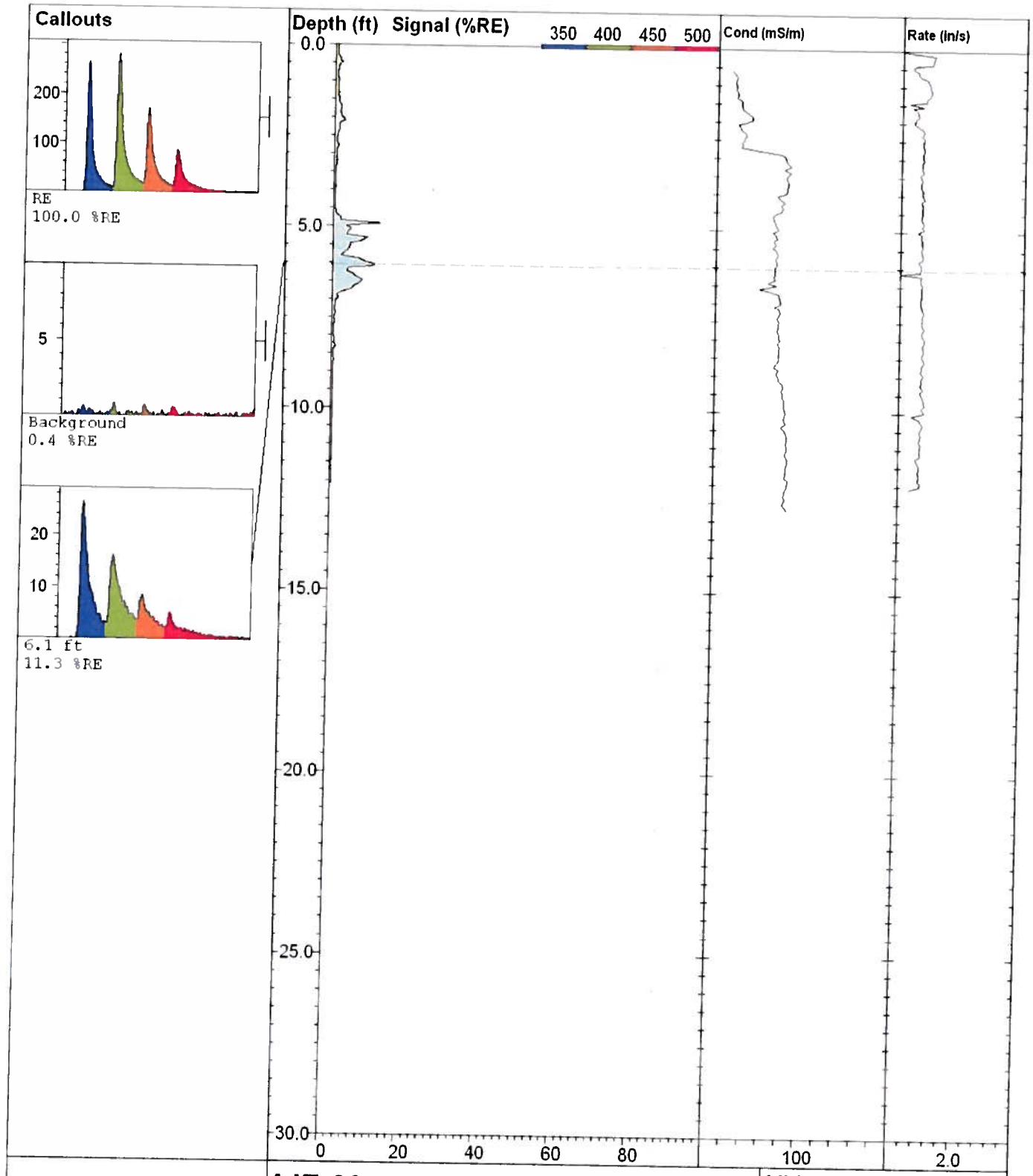


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-40

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.05 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **90.6 % @ 5.10 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 10:27 PST**



MATRIX ENVIRONMENTAL LLC
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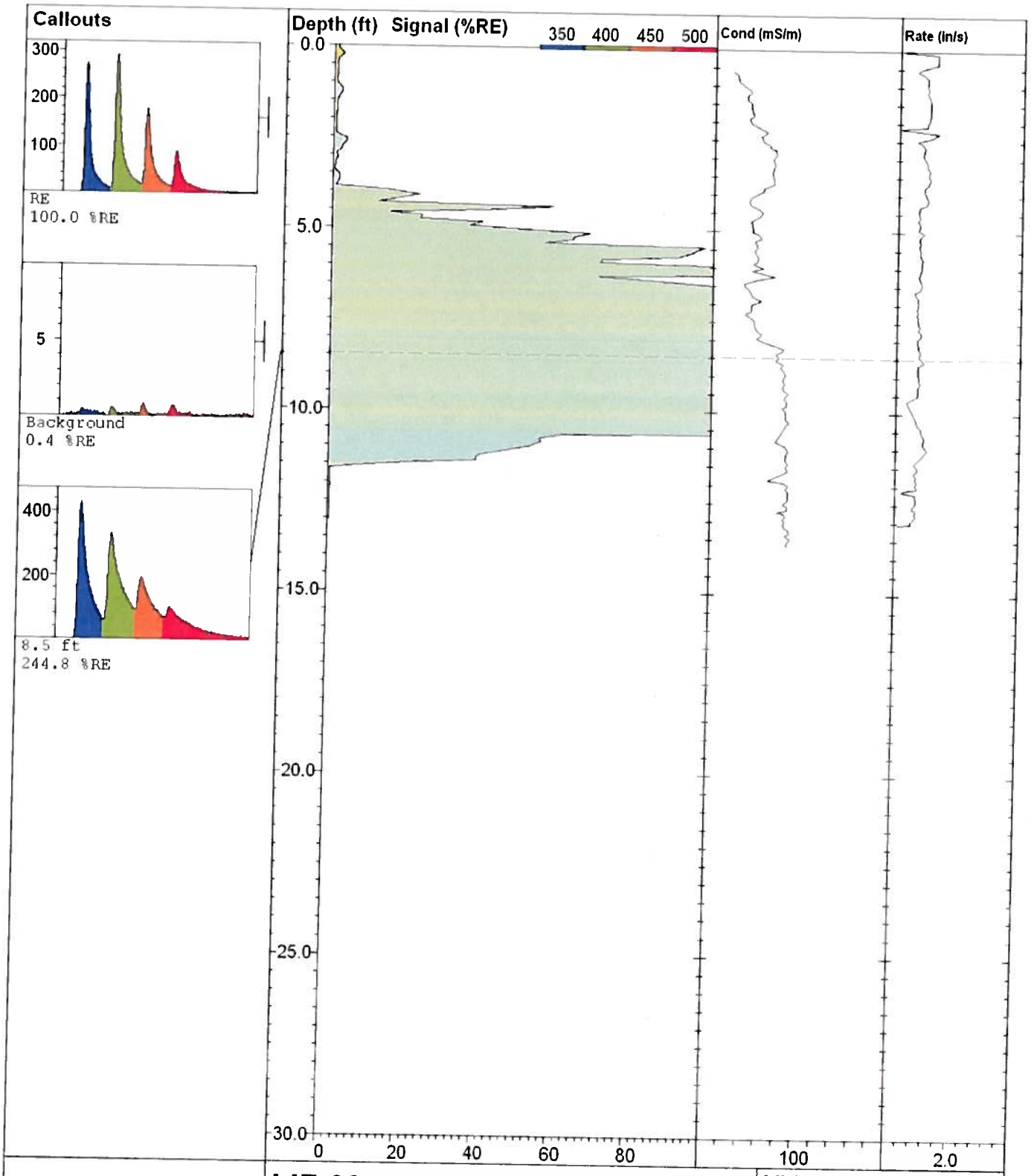
LIF-39

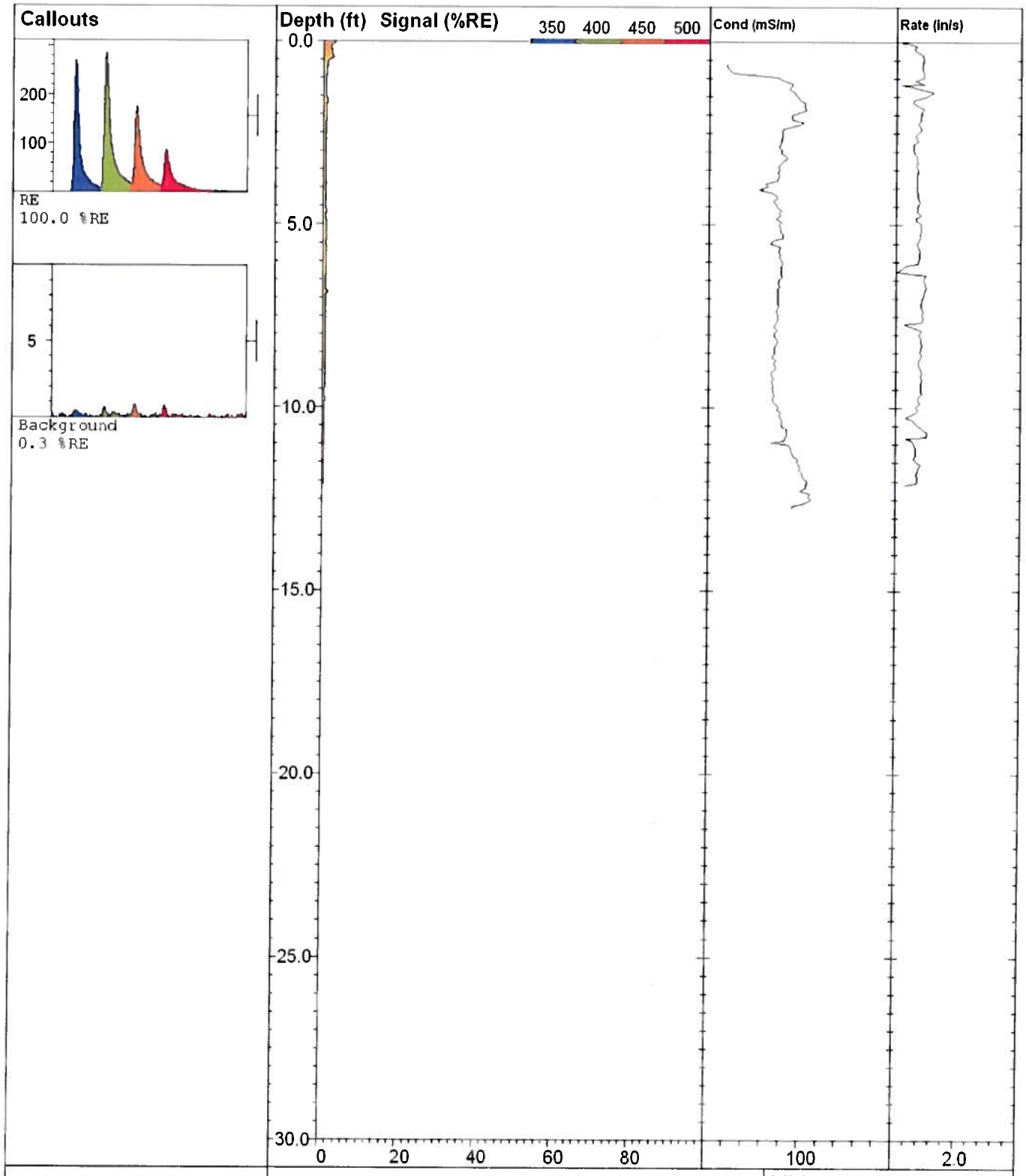
UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.07 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **12.1 % @ 4.91 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 10:06 PST**



MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-38		UVOST By Dakota www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **13.05 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **307.1 % @ 7.76 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 09:42 PST**

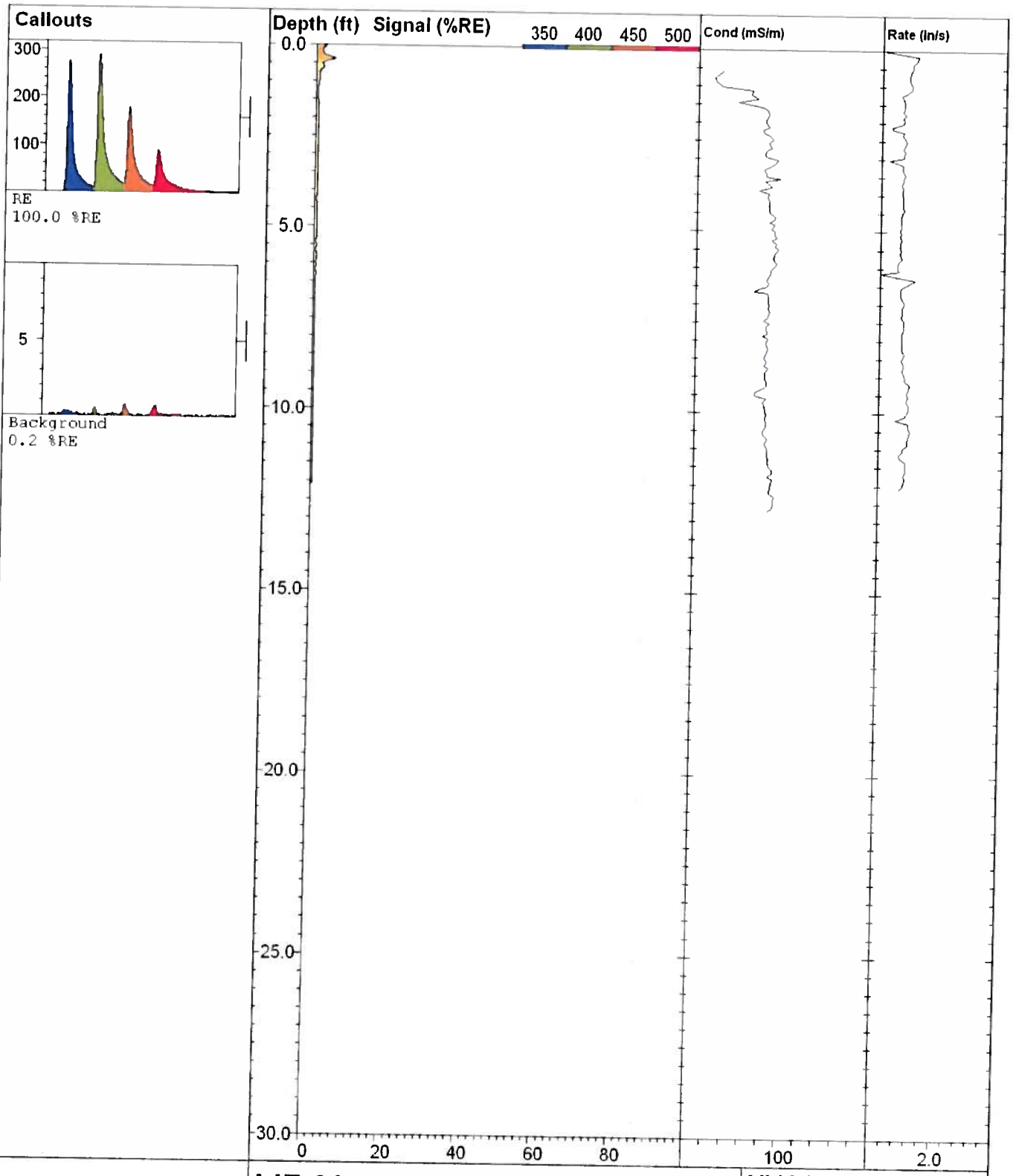


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-37

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.10 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **3.3 % @ 0.03 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 09:29 PST**



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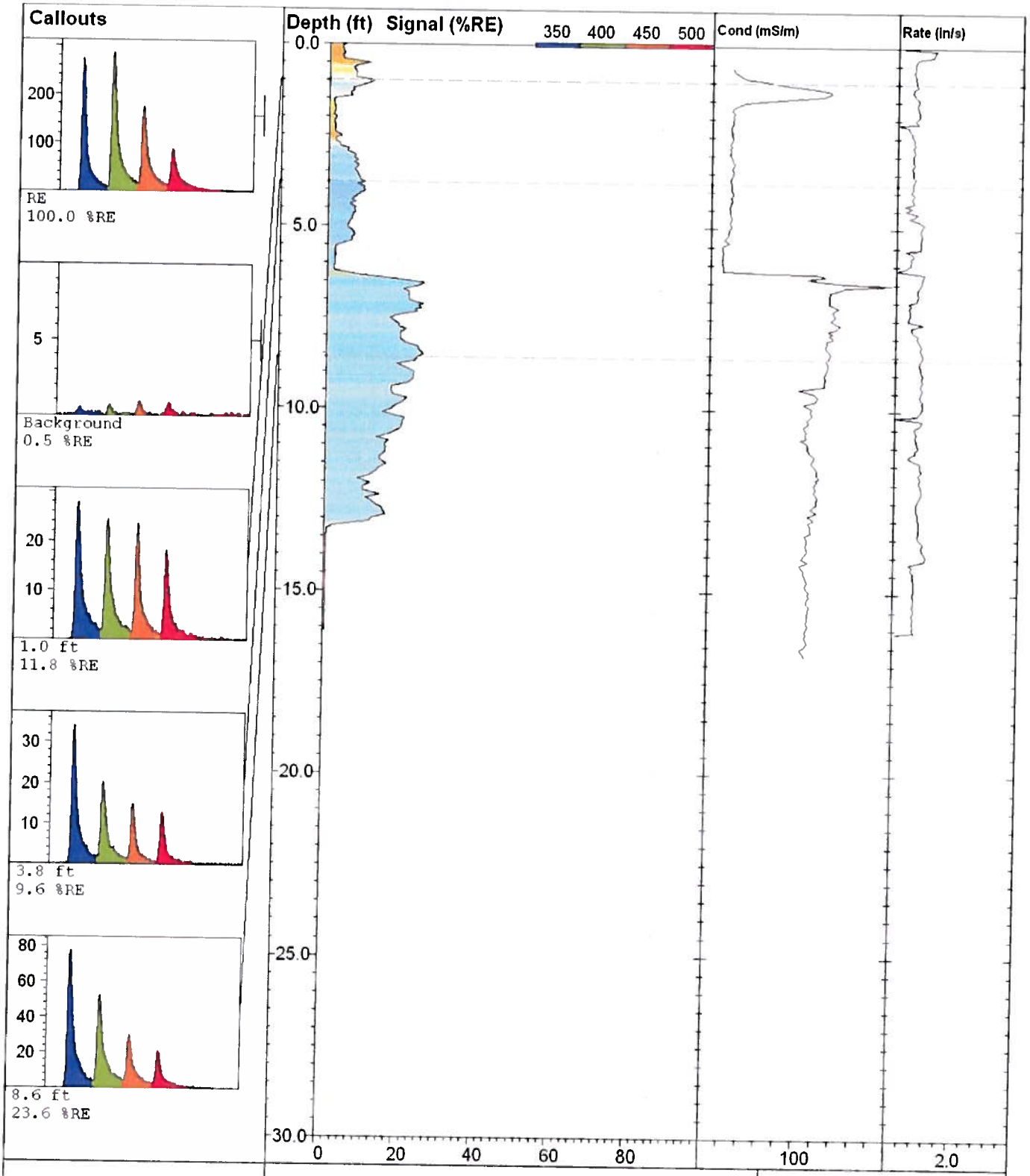
LIF-36

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.08 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **4.9 % @ 0.39 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 09:15 PST**

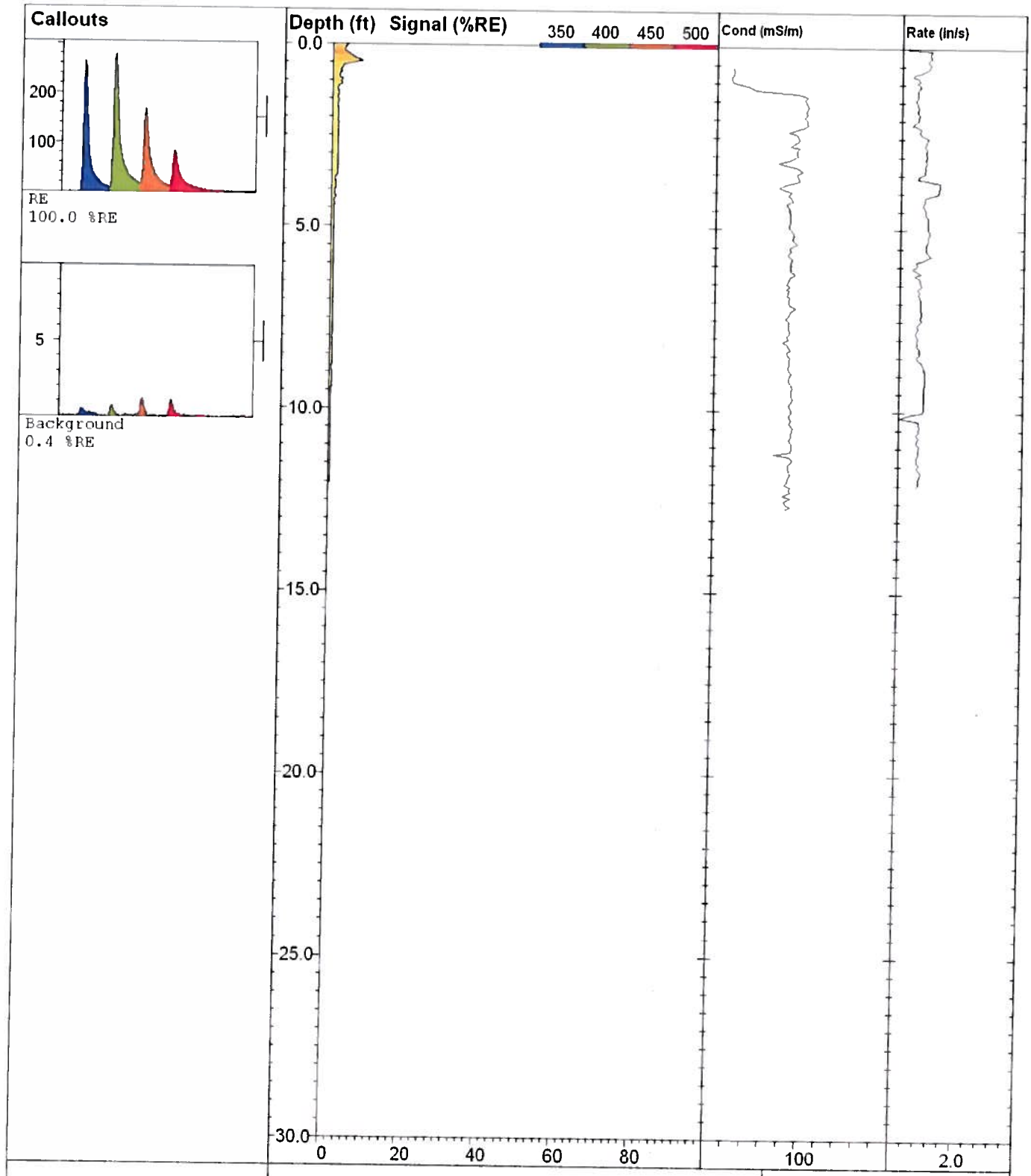


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-35

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **16.10 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **25.4 % @ 6.54 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 08:44 PST**



LIF-34		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.04 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **7.7 % @ 0.47 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 08:30 PST**

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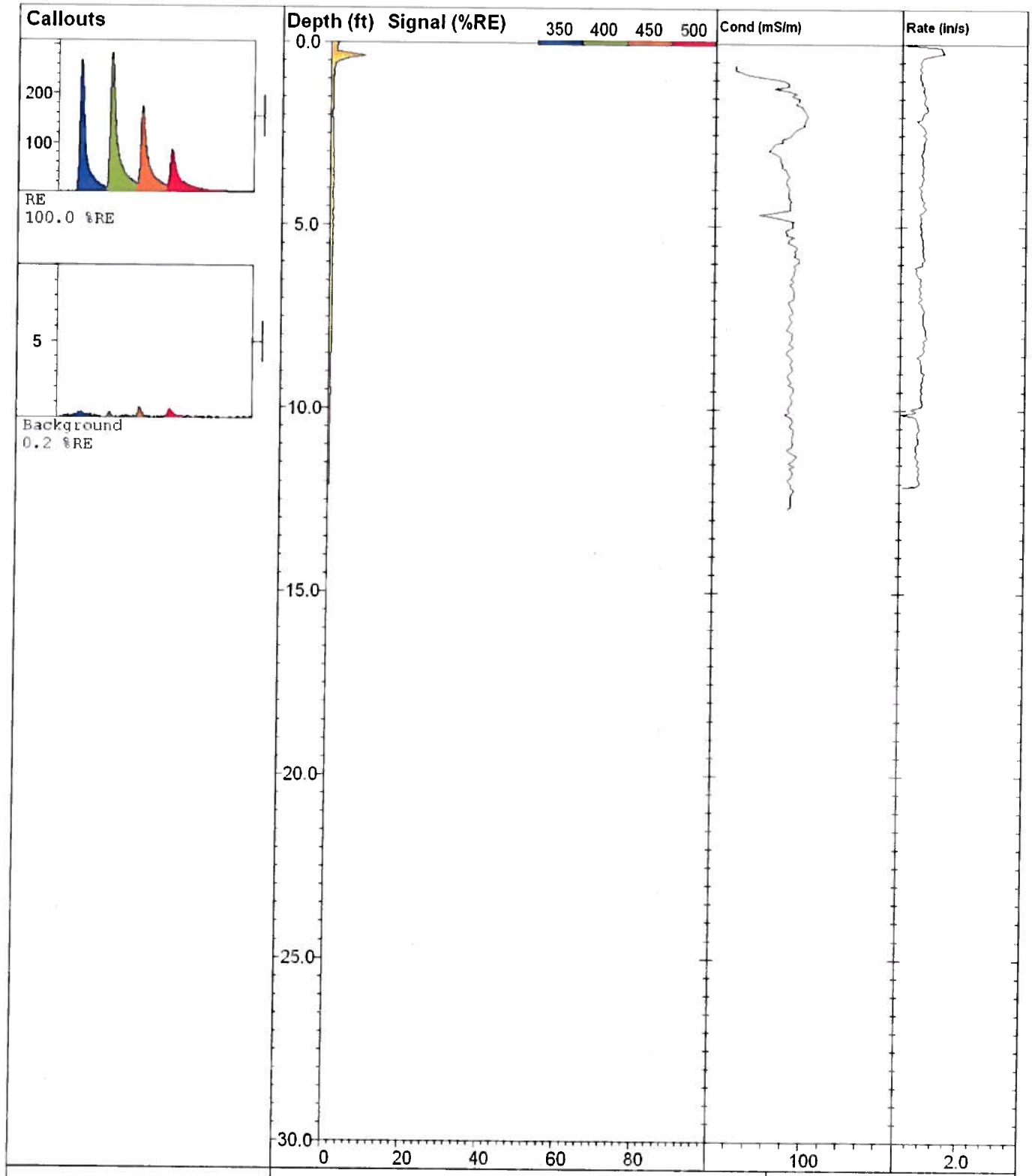
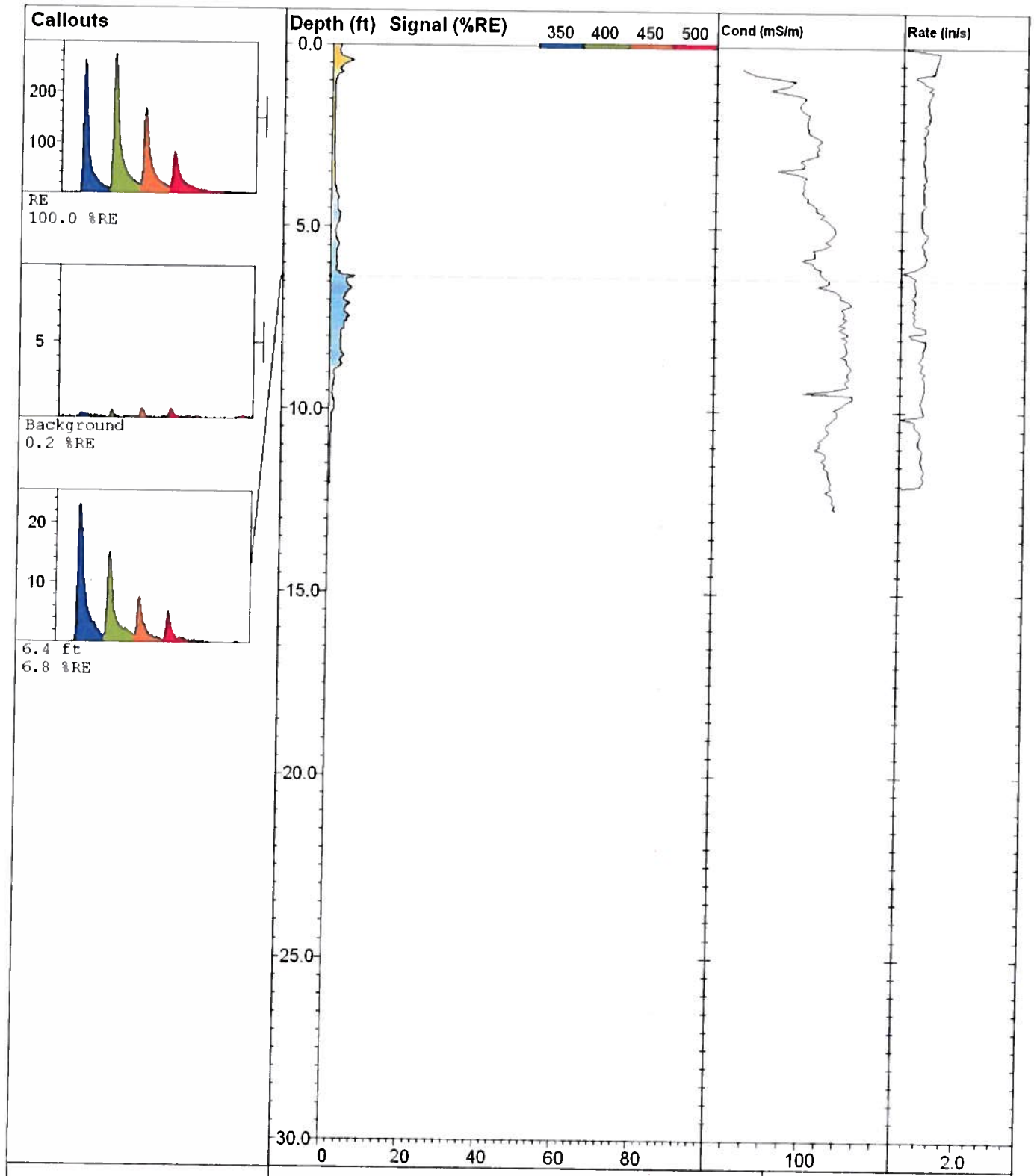


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-33

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.11 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **8.8 % @ 0.38 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 08:17 PST**

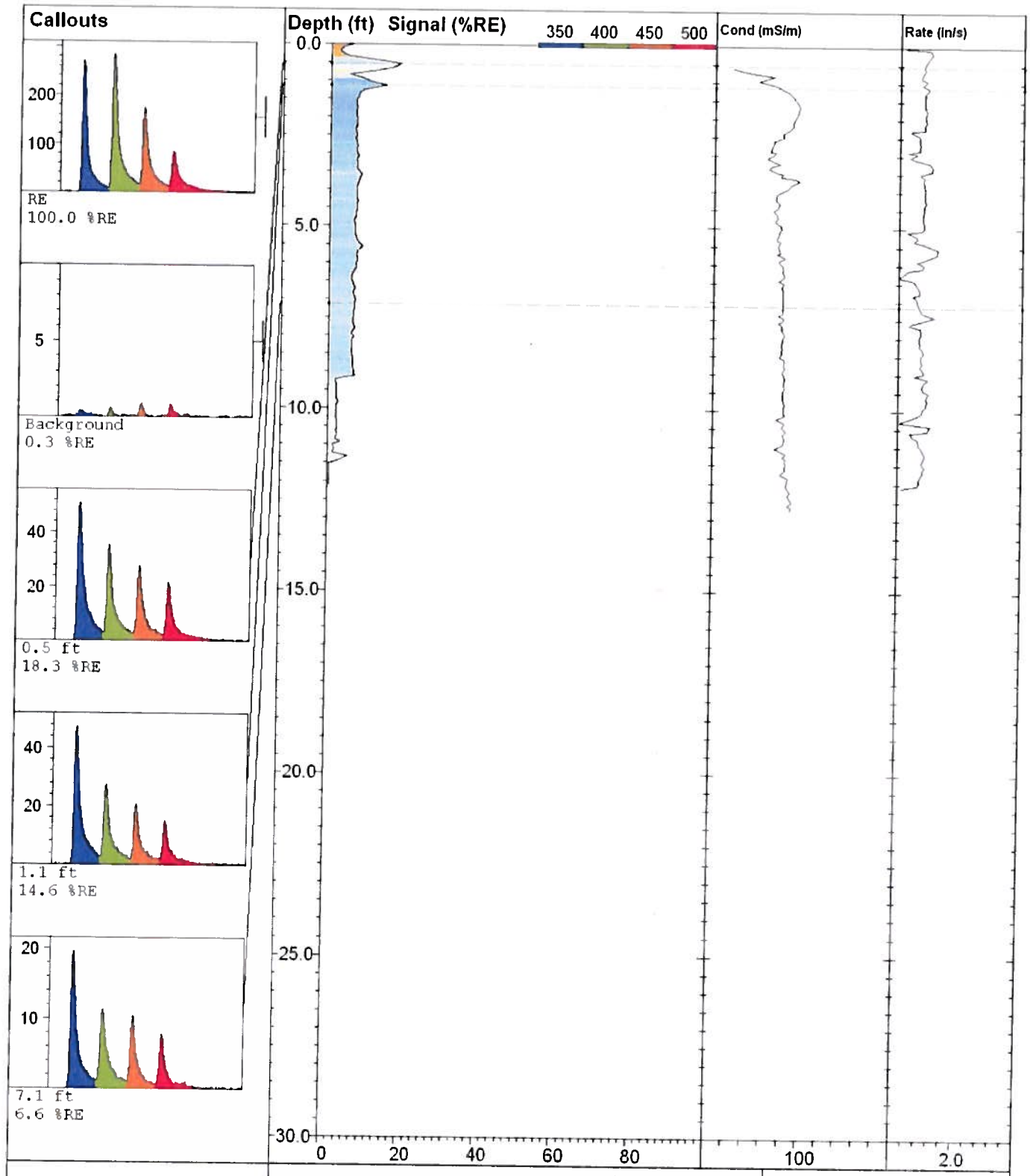


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-32

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.06 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **6.8 % @ 6.37 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 08:02 PST**



MATRIX ENVIRONMENTAL LLC
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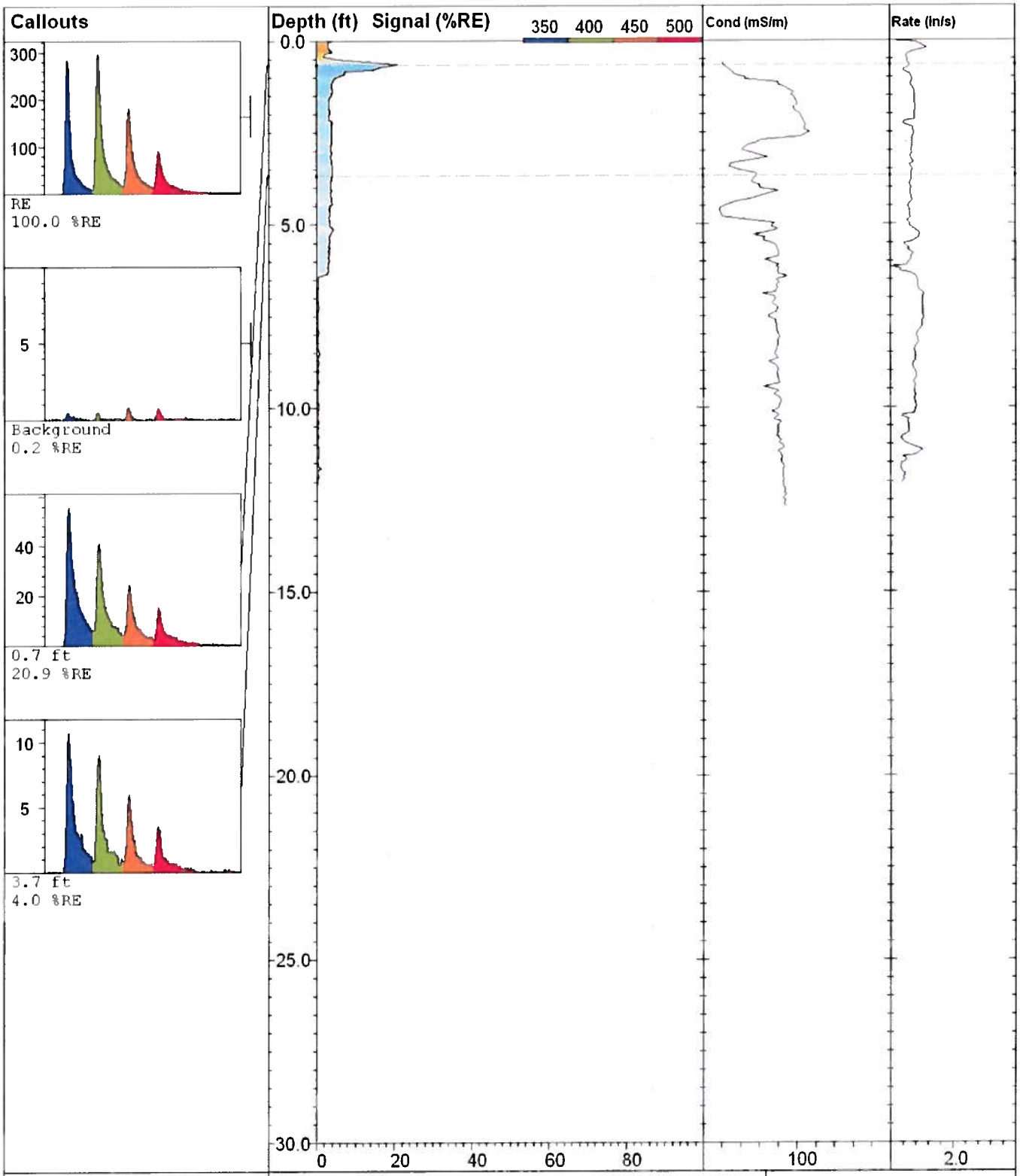
LIF-31

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.11 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **18.3 % @ 0.54 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 07:42 PST**

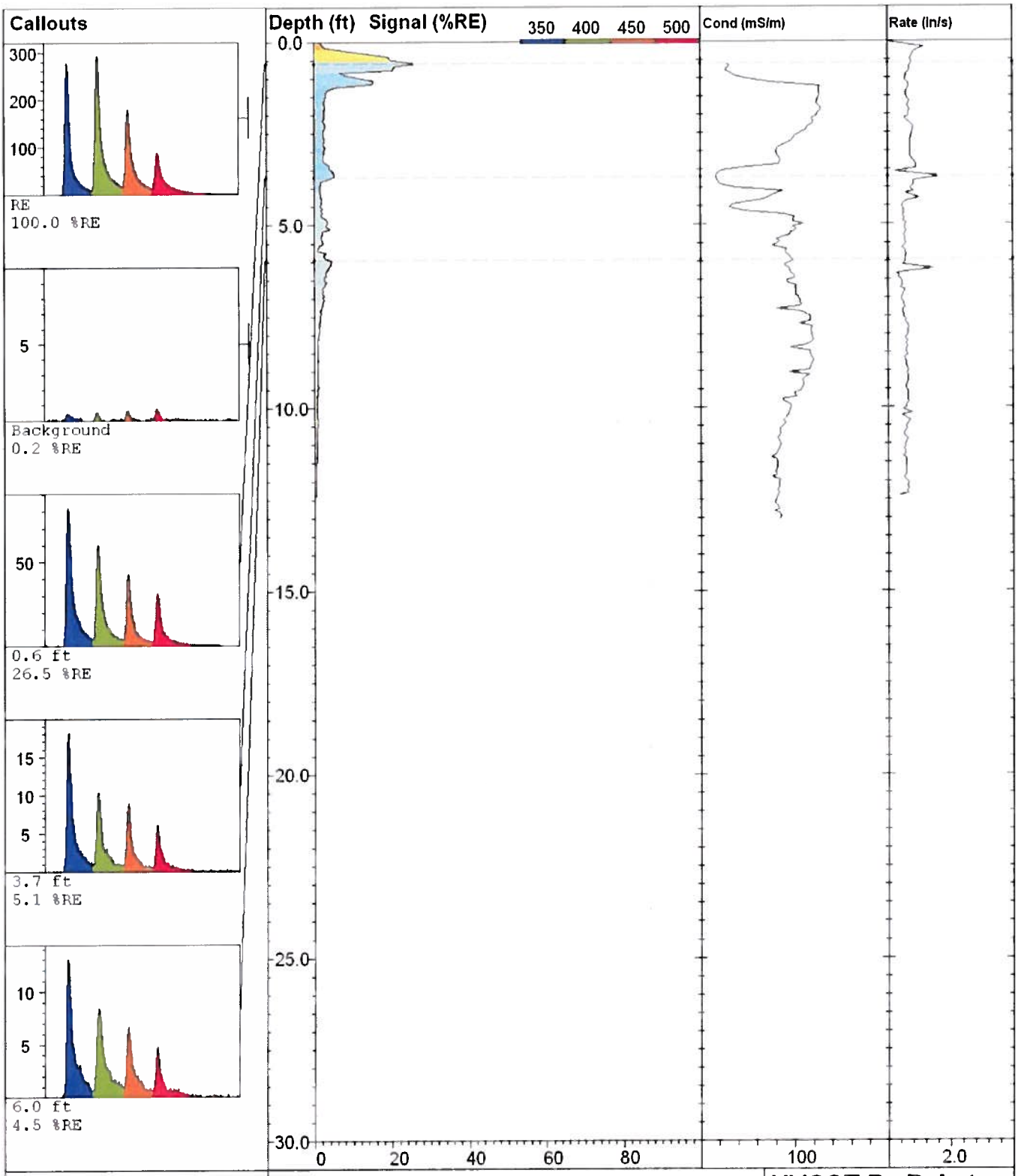


MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-30

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.06 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **20.9 % @ 0.65 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 07:26 PST**

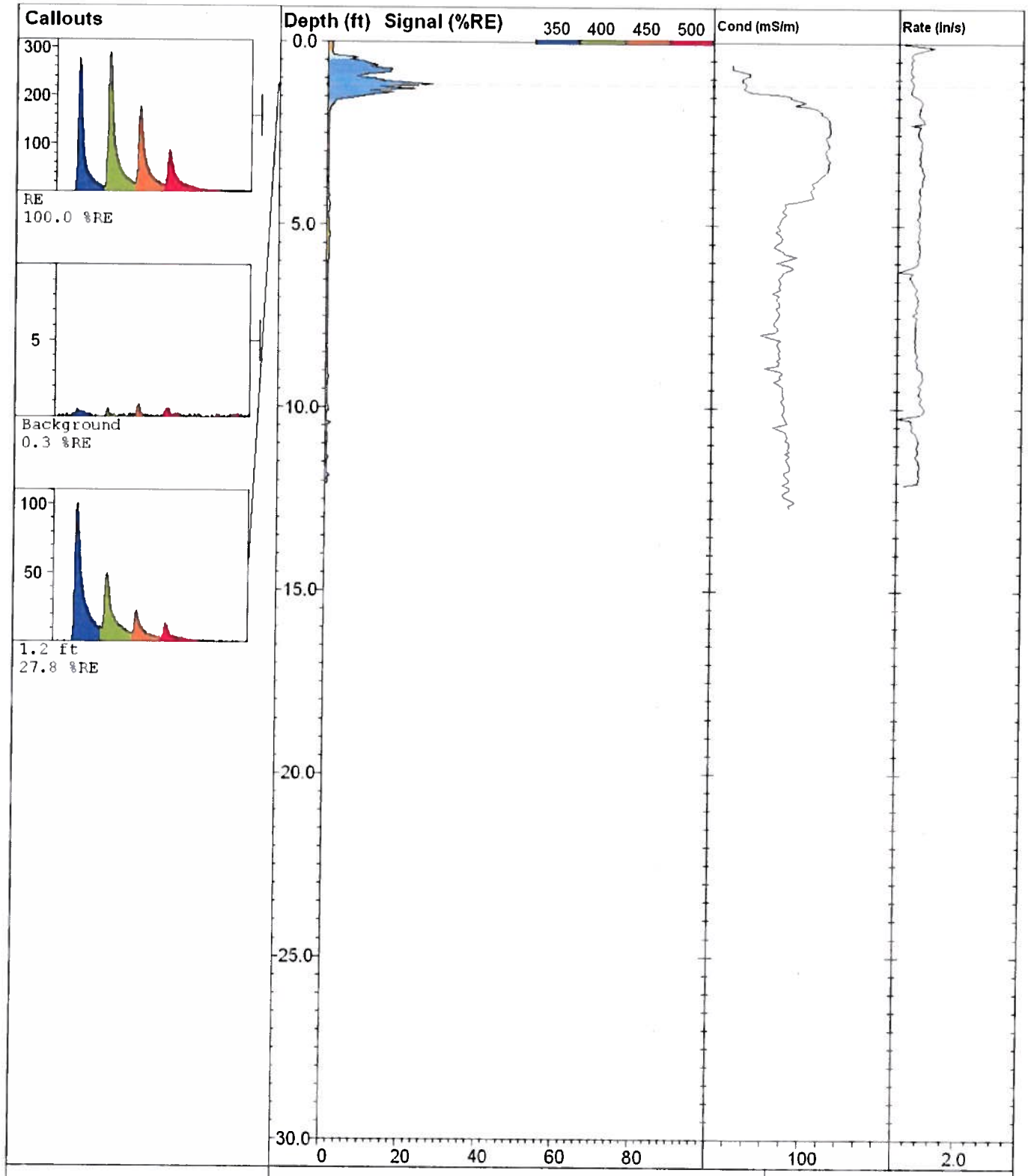


MATRIX ENVIRONMENTAL LLC

LIF-29

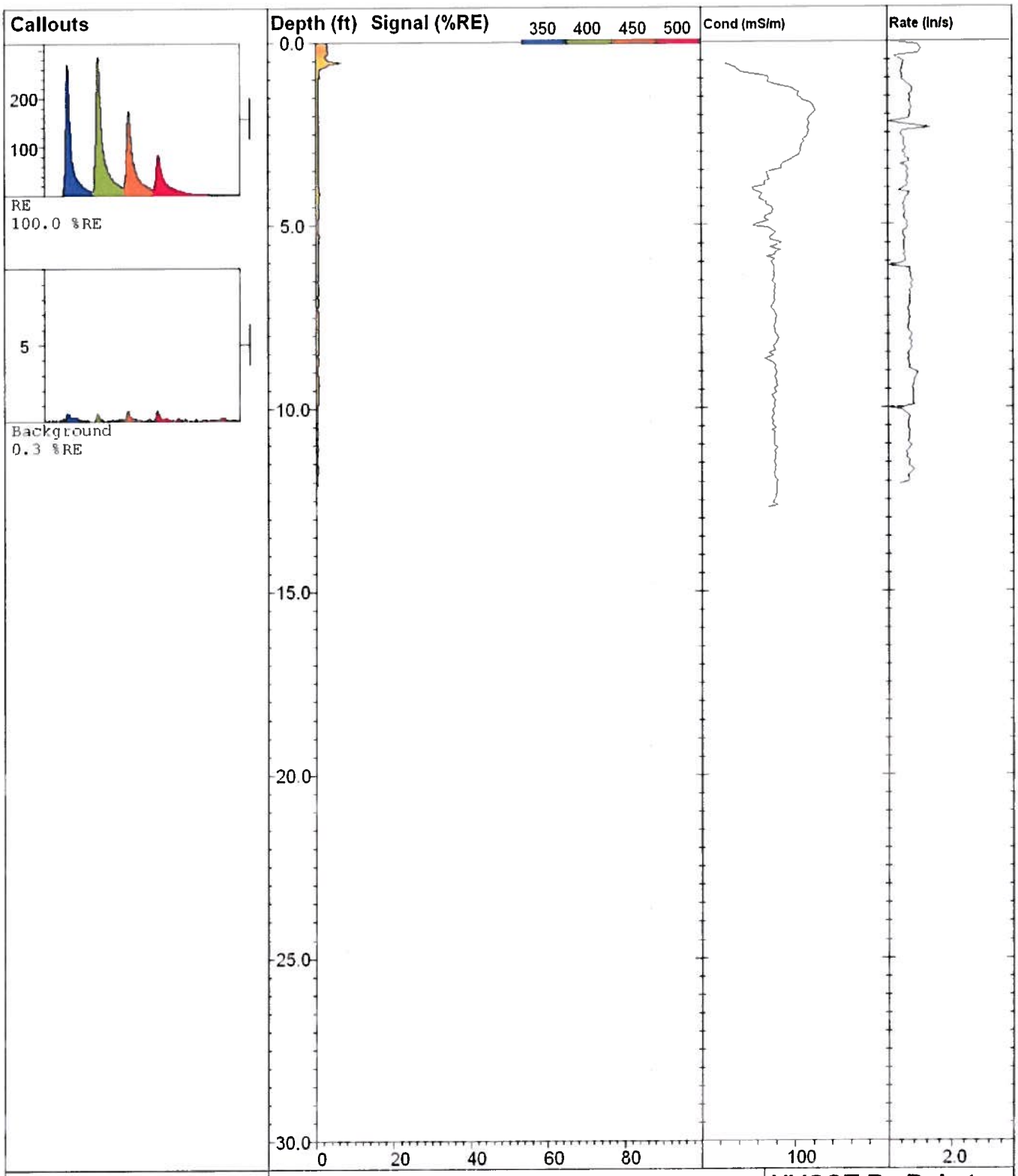
UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.40 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **26.5 % @ 0.60 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 07:09 PST**



LIF-28		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.08 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **27.8 % @ 1.18 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 06:42 PST**

MATRIX ENVIRONMENTAL LLC
www.matrixenv.com



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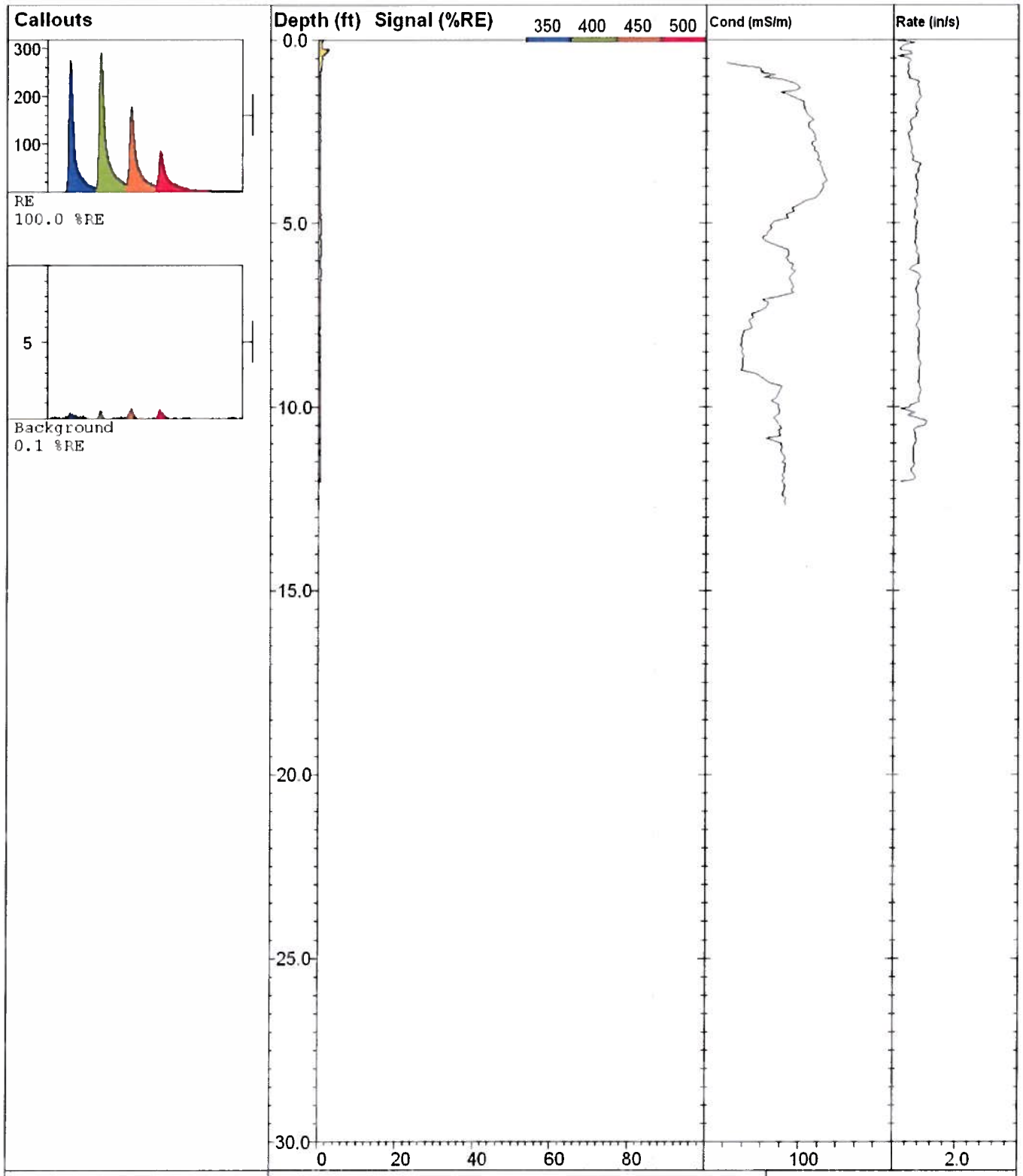
www.matrixenv.com

LIF-27

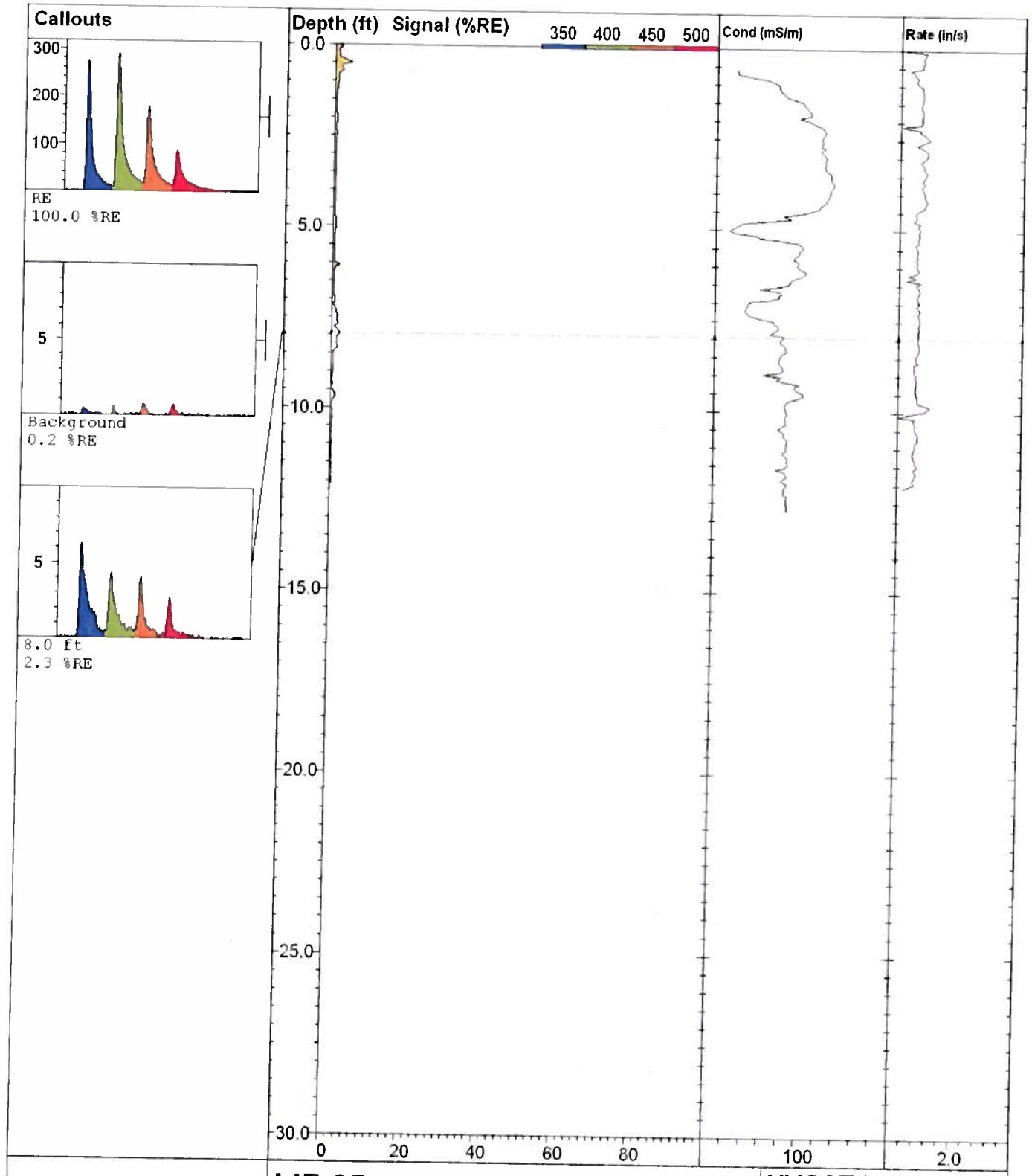
UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.08 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **6.7 % @ 0.56 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 06:27 PST**



LIF-26		**UVOST By Dakota** www.DakotaTechnologies.com
Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.04 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **2.6 % @ 0.27 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 06:11 PST**

MATRIX ENVIRONMENTAL LLC



MATRIX ENVIRONMENTAL LLC
www.matrixenv.com

LIF-25

UVOST By Dakota
www.DakotaTechnologies.com

Site: **Electrolux**	*Latitude / Datum:* **Unavailable / NA**	*Final depth:* **12.08 ft**
Client: **Golder**	*Longitude / Fix:* **Unavailable / NA**	*Max signal:* **4.3 % @ 0.51 ft**
Job: **131-MNDS-12UV**	*Operator/Unit:* **MJ/DT/UVOST1003**	*Date & Time:* **2012-11-14 05:51 PST**

APPENDIX D

BORING AND MONITORING WELL LOGS

BOREHOLE LOG: GP-01

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 30
DEPTH OF SOIL DRILL: 30
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473727.34 E: 4685895.89
GROUND SURFACE ELEV.: 1052.82
DATUM: N/A
START DATE/TIME: 11/20/2010 7:40:00 AM
END DATE/TIME: 11/20/2010 9:45:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	GRAVEL FILL Soft, light olive to dark gray, CLAY with trace Sand.		S1	DPT	0.0	40 / 60	0.0-0.25 ft-bgs: GRAVEL FILL. 0.25-4.0 ft-bgs: Soft, dark gray (N3), CLAY, trace fine Sand, damp [CL]. 4.0-5.0 ft-bgs: Soft, light olive gray (5Y 6/1), CLAY, trace fine to coarse Sand, damp [CL].		Well Not Installed
1045.0	Stiff to soft, light olive to dark gray, SANDY CLAY. SAND LENS Stiff to soft, light olive to dark gray, SANDY CLAY.		S2	DPT	0.0	44 / 60	5.0-5.75 ft-bgs: Loose, light olive gray (5Y 6/1), CLAYEY SAND, fine to coarse Sand, wet [SP]. 5.75-8.0 ft-bgs: Soft, light olive gray (5Y 6/1), SANDY CLAY with trace iron staining, moist-wet [CL]. 7.0 ft-bgs - Sample is damp (less moisture than above and below). 8.0-8.1 ft-bgs: fine to coarse SAND. 8.1-10.0 ft-bgs: Soft, light olive gray (5Y 6/1), SANDY CLAY with trace iron staining, moist-wet [CL].		
1040.0			S3	DPT	0.0	30 / 60	10.0-11.0 ft-bgs: Loose, light olive gray (5Y 6/1), CLAYEY SAND, fine to coarse Sand, wet [SP]. 11.0-15.0 ft-bgs: Stiff, olive gray (5Y 4/1) SANDY CLAY, trace silt and trace carbon staining, wet [CL].		
1035.0			S4	DPT	0.0	41 / 60	15.0-18.0 ft-bgs: Stiff, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand and trace fine Gravel, wet [CL]. 18.0-20.0 ft-bgs: Soft, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand and trace fine Gravel, wet [CL].		
1030.0			S5	DPT	0.0	365 / 60	20.0-25.0 ft-bgs: Soft, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand and trace fine Gravel, wet [CL].		

LITHOLOGY LEGEND

Fill (made ground)
USCS Poorly-graded Sand (SP)
USCS Low Plasticity Clay (CL)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: GP-01

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 30
DEPTH OF SOIL DRILL: 30
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473727.34 E: 4685895.89
GROUND SURFACE ELEV.: 1052.82
DATUM: N/A
START DATE/TIME: 11/20/2010 7:40:00 AM
END DATE/TIME: 11/20/2010 9:45:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Stiff to soft, light olive to dark gray, SANDY CLAY.		S6	DPT	0.0	40 / 60	25.0-30.0 ft-bgs: Soft, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand and trace fine Gravel, wet [CL].		
1020.0									
1015.0									
1010.0									
1005.0									

LITHOLOGY LEGEND

Fill (made ground)
USCS Poorly-graded Sand (SP)
USCS Low Plasticity Clay (CL)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-01/GP-02

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 10
DEPTH OF SOIL DRILL: 10
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473727.53 E: 4685877.23
GROUND SURFACE ELEV.: 1052.8
DATUM: N/A
START DATE/TIME: 11/20/2010 10:00:00 AM
END DATE/TIME: 11/20/2010 10:25:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	GRAVEL FILL Soft, dusky yellow to dark gray, CLAY with trace Sand.		S1	DPT	0.0	40 / 60	0.0-0.25 ft-bgs: GRAVEL FILL. 0.25-3.5 ft-bgs: Soft, dark gray (N3), CLAY, trace fine Sand, damp [CL]. 3.5-5.0 ft-bgs: Soft, yellow (5Y 5/4) with mottling, CLAY and fine to medium SAND, moist [SC/CL].		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Cement seal. 0.75-4.0 ft-bgs: Bentonite chips. 4.0-10.0 ft-bgs: Filter sand pack (20/40 sand). 5.0-10.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1045.0	Stiff to soft, light olive gray, SANDY CLAY with iron and organic staining. Loose CLAYEY SAND LENS Stiff to soft, light olive gray, SANDY CLAY with iron and organic staining.		S2	DPT	0.0	50 / 60	5.0-6.25 ft-bgs: Soft, light olive gray (5Y 6/1), fine SANDY CLAY with trace iron and organic staining, moist [CL]. 6.25-6.35 ft-bgs: Loose, light olive gray (5Y 6/1), fine to coarse CLAYEY SAND, wet [SP]. 6.35-10.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine SANDY CLAY with trace iron and organic staining, moist [CL].		
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

Fill (made ground)
USCS Poorly-graded Sand (SP)
USCS Low Plasticity Clay (CL)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-02/GP-03

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 35
DEPTH OF SOIL DRILL: 35
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473471.97 E: 4685903.39
GROUND SURFACE ELEV.: 1050.81
DATUM: N/A
START DATE/TIME: 11/20/2010 10:45:00 AM
END DATE/TIME: 11/20/2010 12:15:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	GRAVEL FILL Soft, dark gray, CLAY with trace Sand.		S1	DPT	0.0	38 / 60	0.0-0.25 ft-bgs: GRAVEL FILL. 0.25-4.0 ft-bgs: Soft, dark gray (N3), CLAY, trace fine Sand, damp [CL]. 4.0-5.0 ft-bgs: Very soft, light olive gray (5Y 6/1), SANDY CLAY with some Silt and trace iron and organic staining, moist [CL].		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Cement seal. 0.75-4.0 ft-bgs: Bentonite chips. 4.0-10.0 ft-bgs: Filter sand pack (20/40 sand). 5.0-10.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
	Very soft to stiff, light olive gray to medium dark gray, SANDY CLAY with iron and organic staining.								
1045.0			S2	DPT	0.0	32 / 60	5.0-6.0 ft-bgs: Very soft, light olive gray (5Y 6/1), SANDY CLAY with some Silt and trace iron and organic staining, moist [CL]. 6.0-10.0 ft-bgs: Very soft, light olive gray (5Y 6/1), SANDY CLAY with some Silt and some iron staining, moist [CL].		
1040.0			S3	DPT	0.0	16 / 60	10.0-11.0 ft-bgs: Very soft, light olive gray (5Y 6/1), SANDY CLAY with some Silt and some iron staining, moist [CL]. 11.0-15.0 ft-bgs: Very soft, olive gray (5Y 5/4), SANDY CLAY with trace iron staining, damp [CL].		
1035.0			S4	DPT	0.0	12 / 60	15.0-20.0 ft-bgs: Stiff, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand and trace iron staining, moist [CL].		
1030.0			S5	DPT	0.0	24 / 60	20.0-22.0 ft-bgs: Stiff, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand and trace iron staining, moist [CL]. 22.0-25.0 ft-bgs: Stiff, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand, trace Gravel, and trace iron staining, moist [CL].		

LITHOLOGY LEGEND

Fill (made ground)
USCS Poorly-graded Sand (SP)
USCS Low Plasticity Clay (CL)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-02/GP-03

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 35
DEPTH OF SOIL DRILL: 35
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473471.97 E: 4685903.39
GROUND SURFACE ELEV.: 1050.81
DATUM: N/A
START DATE/TIME: 11/20/2010 10:45:00 AM
END DATE/TIME: 11/20/2010 12:15:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Very soft to stiff, light olive gray to medium dark gray, SANDY CLAY with iron and organic staining.		S6	DPT	0.0	55 / 60	25.0-29.0 ft-bgs: Stiff, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand, trace Gravel, and trace iron staining, moist [CL]. 29.0-29.5 ft-bgs: Very soft, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand, trace Gravel, and trace iron staining, moist [CL]. 29.5-30.0 ft-bgs: Stiff, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand, trace Gravel, and trace iron staining, moist [CL].		
1020.0			S7	DPT	0.0	36 / 60	30.0-34.7 ft-bgs: Hard, medium to dark gray (N4), SANDY CLAY with little fine to coarse Sand, trace Gravel, and trace iron staining, dry [CL]. 34.7-34.9 ft-bgs: loose, light olive gray (5Y 5/6), medium SAND, dry [SP]. 34.9-35.0 ft-bgs: Hard, dark greenish gray (5GY 4/1), CLAY and SILT with little fine to coarse Sand, trace fine Gravel, dry [CL].		
	Loose SAND LENS								
1015.0	Very soft to stiff, light olive gray to medium dark gray, SANDY CLAY with iron and organic staining.								
1010.0									
1005.0									

LITHOLOGY LEGEND

Fill (made ground)
USCS Poorly-graded Sand (SP)
USCS Low Plasticity Clay (CL)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

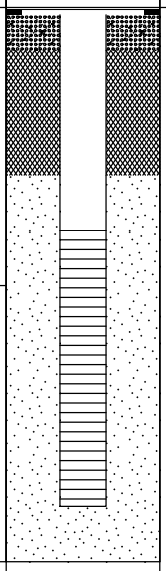
Golder Associates

BOREHOLE LOG: MW-03/GP-04

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 10
DEPTH OF SOIL DRILL: 10
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473712.19 E: 4685345.59
GROUND SURFACE ELEV.: 1050.94
DATUM: N/A
START DATE/TIME: 11/20/2010 1:35:00 PM
END DATE/TIME: 11/20/2010 1:45:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Soft, dark to olive gray, CLAY with trace Sand.		S1	DPT	0.0	42 / 60	0.0-2.5 ft-bgs: Soft, dark gray (N3), CLAY, trace fine Sand, damp [CL]. 2.5-4.0 ft-bgs: Soft, light olive gray (5Y 6/1), CLAY, trace fine Sand, damp [CL]. 4.0-5.0 ft-bgs: Soft, light olive gray (5Y 6/1), SANDY CLAY with some Silt, trace iron and organic staining, moist [CL].		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Cement seal. 0.75-3.0 ft-bgs: Bentonite chips. 3.0-10.0 ft-bgs: Filter sand pack (20/40 sand). 4.0-9.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
	Soft to stiff, light olive gray, SANDY CLAY with iron and organic staining.								
1045.0			S2	DPT	0.0	50 / 60	5.0-7.0 ft-bgs: Soft, light olive gray (5Y 6/1), SANDY CLAY with some Silt, trace iron and organic staining, moist-wet [CL]. 7.0-8.0 ft-bgs: Firm, light olive gray (5Y 6/1), SANDY CLAY with some fine to coarse Sand, trace Gravel, trace iron and organic staining, moist [CL]. 8.0-10.0 ft-bgs: Striff, light olive gray (5Y 6/1), SANDY CLAY with some fine to coarse Sand, trace Gravel, trace iron and organic staining, moist [CL].		
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

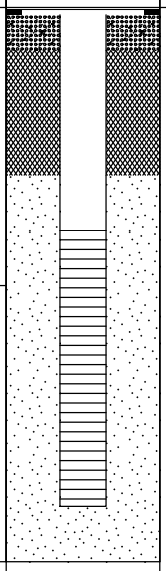
Golder Associates

BOREHOLE LOG: MW-04/GP-05

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 10
DEPTH OF SOIL DRILL: 10
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473471.13 E: 4685362.38
GROUND SURFACE ELEV.: 1049.9
DATUM: N/A
START DATE/TIME: 11/20/2010 2:05:00 PM
END DATE/TIME: 11/20/2010 2:15:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Soft, dark to olive gray, CLAY with trace Sand.		S1	DPT	0.0	45 / 60	0.0-3.5 ft-bgs: Soft, dark gray (N3), CLAY, trace fine Sand, damp [CL]. 3.5-4.0 ft-bgs: Very soft, light olive gray (5Y 6/1), CLAY, trace fine Sand, moist [CL]. 4.0-5.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine to medium SANDY CLAY with some Silt, trace iron and organic staining, moist [CL].		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Cement seal. 0.75-3.0 ft-bgs: Bentonite chips. 3.0-10.0 ft-bgs: Filter sand pack (20/40 sand). 4.0-9.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
	Soft, light olive gray, SANDY CLAY with iron and organic staining.								
1045.0	SAND LENS								
	Soft, light olive gray, SANDY CLAY with iron and organic staining.		S2	DPT	0.0	55 / 60	5.0-10.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine to medium SANDY CLAY with some Silt, trace iron and organic staining, moist [CL].		
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)

USCS Low Plasticity Sandy Clay (CLS)

USCS Poorly-graded Sand (SP)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

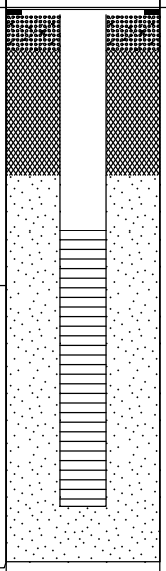
Golder Associates

BOREHOLE LOG: MW-05/GP-06

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 10
DEPTH OF SOIL DRILL: 10
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473144.28 E: 4685429.86
GROUND SURFACE ELEV.: 1051.53
DATUM: N/A
START DATE/TIME: 11/20/2010 2:35:00 PM
END DATE/TIME: 11/20/2010 2:45:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Soft, dark to olive gray, CLAY with trace Sand. Soft to firm, light olive gray, SANDY CLAY with iron and organic staining.		S1	DPT	0.0	36 / 60	0.0-1.5 ft-bgs: Firm, dark gray (N3), CLAY, trace fine Sand, damp [CL]. 1.5-2.5 ft-bgs: Firm, light olive gray (5Y 6/1), fine to medium SANDY CLAY with some Silt, damp [CL]. 2.5-4.75 ft-bgs: Firm, light olive gray (5Y 6/1), fine to medium SANDY CLAY with some Silt, trace iron and organic staining, damp [CL]. 4.75-5.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine to medium SANDY CLAY with some Silt, trace iron and organic staining, moist [CL].		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Cement seal. 0.75-3.0 ft-bgs: Bentonite chips. 3.0-10.0 ft-bgs: Filter sand pack (20/40 sand). 4.0-9.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1045.0	SAND LENS Soft to firm, light olive gray, SANDY CLAY with iron and organic staining.		S2	DPT	0.0	44 / 60	5.0-5.5 ft-bgs: Loose, medium yellow brown (10 YR 4/2), fine to coarse SAND, trace Gravel, wet [SP]. 5.5-6.5 ft-bgs: Soft, light olive gray (5Y 6/1), fine to carse SANDY CLAY with some Silt, moist [CL]. 6.5-6.6 ft-bgs: Fine to coarse SAND lense. 6.6-8.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine to carse SANDY CLAY with some Silt, moist [CL]. 8.0-10.0 ft-bgs: Firm, light olive gray (5Y 6/1), fine to carse SANDY CLAY with some Silt, moist-damp [CL].		
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)

USCS Low Plasticity Sandy Clay (CLS)

USCS Poorly-graded Sand (SP)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-06/GP-07

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 10
DEPTH OF SOIL DRILL: 10
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473155.05 E: 4685603.48
GROUND SURFACE ELEV.: 1049.44
DATUM: N/A
START DATE/TIME: 11/20/2010 3:00:00 PM
END DATE/TIME: 11/20/2010 3:15:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	GRAVEL FILL						0.0-0.5 ft-bgs: GRAVEL FILL.		Steel flush mount with locking cap.
	Hard to soft, light olive gray, SANDY CLAY with iron and organic staining.		S1	DPT	0.0	55 / 60	0.5-1.0 ft-bgs: Hard, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, trace iron and organic staining, dry-damp [CL]. 1.0-4.75 ft-bgs: Soft, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, trace iron and organic staining, moist [CL]. 4.75-5.0 ft-bgs: Firm, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, trace iron and organic staining, moist [CL].		0.0-0.75 ft-bgs: Cement seal. 0.75-4.0 ft-bgs: Bentonite chips.
1045.0									4.0-10.0 ft-bgs: Filter sand pack (20/40 sand).
			S2	DPT	0.0	55 / 60	5.0-6.0 ft-bgs: Firm, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, trace iron and organic staining, moist [CL]. 6.0-7.5 ft-bgs: Soft, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, trace iron and organic staining, moist [CL]. 7.5-7.8 ft-bgs: Very soft, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, trace iron and organic staining, moist-wet [CL]. 7.8-8.5 ft-bgs: Soft, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, trace iron and organic staining, moist [CL]. 8.5-10.0 ft-bgs: Stiff, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, trace iron and organic staining, moist [CL].		5.0-10.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

Fill (made ground)

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-07/GP-08

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 15
DEPTH OF SOIL DRILL: 15
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473151.23 E: 4685908.05
GROUND SURFACE ELEV.: 1049.64
DATUM: N/A
START DATE/TIME: 11/20/2010 3:30:00 PM
END DATE/TIME: 11/20/2010 3:45:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Soil to firm, dark gray, CLAY with trace Sand.								Steel flush mount with locking cap.
	Soil to very stiff, light to medium olive gray, SANDY CLAY with iron and organic staining.		S1	DPT	0.0	36 / 60	0.0-1.5 ft-bgs: Soft, dark gray (N3), CLAY with trace fine Sand, damp [CL]. 1.5-4.5 ft-bgs: Stiff-very stiff, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, damp [CL]. 4.5-5.0 ft-bgs: Stiff-very stiff, medium light gray (N6), fine SANDY CLAY with some Silt, damp [CL].		0.0-0.75 ft-bgs: Cement seal. 0.75-9.0 ft-bgs: Bentonite chips.
1045.0									
			S2	DPT	0.0	55 / 60	5.0-5.25 ft-bgs: Stiff-very stiff, medium light gray (N6), fine SANDY CLAY with some Silt, damp [CL]. 5.25-8.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, little iron staining and trace organic staining, damp [CL]. 8.0-10.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt, little iron staining and trace organic staining, damp [CL].		9.0-15.0 ft-bgs: Filter sand pack (20/40 sand). 10.0-15.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0									
			S3	DPT	0.0	54 / 60	10.0-11.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt, little iron staining and trace organic staining, damp [CL]. 11.0-14.5 ft-bgs: Very stiff, medium gray (N5), fine to coarse SANDY CLAY with some Silt, little iron staining and trace organic staining, damp [CL]. 14.5-14.75 ft-bgs: Loose, medium yellow brown (10YR 5/4), fine to medium SAND, moist-wet [SP]. 14.75-15.0 ft-bgs: Very stiff, medium dark gray (N4), fine to coarse SANDY CLAY with some Silt, little iron staining and trace organic staining, damp [CL].		
1035.0	SAND LENS								
	Soft to very stiff, dark gray, SANDY CLAY with iron and organic staining.								
1030.0									
1025.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)

USCS Low Plasticity Sandy Clay (CLS)

USCS Poorly-graded Sand (SP)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-08/GP-09

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 10
DEPTH OF SOIL DRILL: 10
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473628.35 E: 4685640.81
GROUND SURFACE ELEV.: 1049.61
DATUM: N/A
START DATE/TIME: 11/21/2010 7:45:00 AM
END DATE/TIME: 11/21/2010 8:00:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Soft, dark gray, CLAY with trace Sand.						0.0-1.0 ft-bgs: Soft, dark gray (N3), CLAY with trace fine Sand, damp [CL].		Steel flush mount with locking cap.
	Very soft to stiff, light to medium olive gray, SANDY CLAY with iron and organic staining.		S1	DPT	0.0	45 / 60	1.0-4.0 ft-bgs: Very soft, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, trace iron and organic staining, moist [CL]. 4.0-4.5 ft-bgs: Very soft, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, little iron and trace organic staining, moist [CL]. 4.5-4.7 ft-bgs: Fine to coarse SAND, moist-wet.		0.0-0.75 ft-bgs: Cement seal. 0.75-3.0 ft-bgs: Bentonite chips. 3.0-10.0 ft-bgs: Filter sand pack (20/40 sand). 4.0-9.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1045.0	SAND LENS Very soft to stiff, light to medium olive gray, SANDY CLAY with iron and organic staining.		S2	DPT	0.0	55 / 60	4.7-5.0 ft-bgs: Very soft, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, little iron and trace organic staining, moist [CL]. 5.0-6.0 ft-bgs: Very soft, light olive gray (5Y 6/1), fine SANDY CLAY with some Silt, little iron and trace organic staining, moist [CL]. 6.0-9.5 ft-bgs: Soft, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt, little iron and trace organic staining, moist [CL]. 9.5-10.0 ft-bgs: Stiff, medium gray (N5), fine to coarse SANDY CLAY with some Silt, some iron and trace organic staining,damp [CL].		
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)

USCS Low Plasticity Sandy Clay (CLS)

USCS Poorly-graded Sand (SP)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

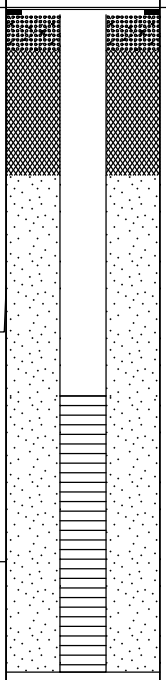
Golder Associates

BOREHOLE LOG: MW-09/GP-10

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 20
DEPTH OF SOIL DRILL: 20
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473180.95 E: 4685490.47
GROUND SURFACE ELEV.: 1049.39
DATUM: N/A
START DATE/TIME: 11/21/2010 9:05:00 AM
END DATE/TIME: 11/21/2010 9:40:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	GRAVEL FILL Soft to stiff, light to dark olive gray, SANDY CLAY with iron and organic staining.		S1	DPT	0.0	54 / 60	0.0-0.25 ft-bgs: GRAVEL FILL. 0.25-1.5 ft-bgs: Firm, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt and trace fine gravel, trace iron and organic staining, damp [CL]. 1.5-4.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt and trace fine Gravel, trace iron and organic staining, damp-moist [CL]. 4.0-5.0 ft-bgs: Stiff, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt and trace fine Gravel, trace iron and organic staining, damp-moist [CL].		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Cement seal. 0.75-3.0 ft-bgs: Bentonite chips. 3.0-12.0 ft-bgs: Filter sand pack (20/40 sand). 7.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1045.0			S2	DPT	0.0	48 / 60	5.0-8.0 ft-bgs: Stiff, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt and trace fine Gravel, trace iron and organic staining, damp-moist [CL]. 8.0-10.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt and trace fine Gravel, trace iron and organic staining, moist [CL].		
1040.0			S3	DPT	0.0	42 / 60	10.0-11.0 ft-bgs: Soft, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt and trace fine Gravel, trace iron and organic staining, moist [CL]. 11.0-14.0 ft-bgs: Stiff, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt and trace fine Gravel, trace iron and organic staining, damp-moist [CL]. 14.0-15.0 ft-bgs: Very stiff, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt and trace fine Gravel, some iron and trace organic staining, damp-moist [CL].		
1035.0			S4	DPT	0.0	42 / 60	15.0-16.0 ft-bgs: Very stiff, light olive gray (5Y 6/1), fine to coarse SANDY CLAY with some Silt and trace fine Gravel, some iron and trace organic staining, damp-moist [CL]. 16.0-20.0 ft-bgs: Very stiff, medium dark gray (N4), fine to coarse SANDY CLAY with some Silt and trace fine Gravel, some iron and trace organic staining, damp-dry [CL].		
1030.0									
1025.0									

LITHOLOGY LEGEND

Fill (made ground)

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 1/20/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-10

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 15
DEPTH OF SOIL DRILL: 15
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473208.66 E: 4685430.75
GROUND SURFACE ELEV.: 1049.24
DATUM: N/A
START DATE/TIME: 3/29/2011 8:45:00 AM
END DATE/TIME: 3/29/2011 11:05:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Concrete								Steel flush mount with locking cap.
	Firm, dark gray (N3), CLAY, trace fine Sand, damp.								0.0-1.0 ft-bgs: Concrete seal.
	Very soft to stiff, light olive gray (5Y 5/2) to medium yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, trace iron and organic staining, moist.		1	DPT	0.6	48 / 54	0.5-1.0 ft-bgs: Firm, dark gray (N3), CLAY, trace fine Sand, damp.		1.0-1.5 ft-bgs: Granular Bentonite.
							1.0-2.5 ft-bgs: Soft, light olive gray (5Y 5/2), fine SANDY CLAY, some Silt, trace iron and organic staining, damp-moist.		1.5-12.0 ft-bgs: Clean, fine to coarse sand filter.
							2.5-3.0 ft-bgs: Soft, light olive gray (5Y 5/2), fine SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, damp-moist.		
					1.7		3.0-4.0 ft-bgs: Very soft, light olive gray (5Y 5/2), fine SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, moist.		
1045.0									
							4.0-5.0 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, damp.		2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
					1.4				
			2	DPT		54 / 60	5.0-5.5 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, damp.		
					1.1		5.5-7.0 ft-bgs: Very soft, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, moist.		
1040.0									
					1.4		7.0-9.0 ft-bgs: Soft-firm, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, damp.		
			3	DPT		32 / 60	9.0-10.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, damp.		12.0-15.0 ft-bgs: Collapsed hole.
					1.0				
1035.0							10.0-12.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, damp.		
							12.0-14.5 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, damp.		
							14.5-15.0 ft-bgs: Stiff, medium dark gray (N4), fine to medium SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, damp.		
1030.0									
1025.0									

LITHOLOGY LEGEND

Concrete

USCS Low Plasticity Clay (CL)

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-11

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13.5
DEPTH OF SOIL DRILL: 13.5
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473158.1 E: 4685534.48
GROUND SURFACE ELEV.: 1049.79
DATUM: N/A
START DATE/TIME: 3/29/2011 11:15:00 AM
END DATE/TIME: 3/29/2011 12:10:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Firm, dark yellow brown (10YR 4/2), CLAY and GRAVEL, moist. [FILL]						0.0-1.0 ft-bgs: Firm, dark yellow brown (10YR 4/2), CLAY and GRAVEL, moist. [FILL]		Steel flush mount with locking cap.
	firm to stiff, medium yellow brown (10YR 5/4) to medium dark gray (N4), fine SANDY CLAY, some Silt, some iron and organic staining, damp-moist.		1	DPT	1.7	58 / 60	1.0-2.5 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, some iron and organic staining, damp-moist.		0.0-0.75 ft-bgs: Concrete seal.
					1.4		2.5-3.5 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, iron and organic staining, little light gray (N7) mottling, damp-moist.		0.75-1.0 ft-bgs: Clean, fine to coarse sand.
1045.0							3.5-4.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, iron and organic staining, little light gray (N7) mottling, damp-moist.		1.0-2.5 ft-bgs: Granular Bentonite.
			2	DPT	2.1	50 / 60	4.0-5.0 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, iron and organic staining, little light gray (N7) mottling, moist.		2.5-13.5 ft-bgs: Clean, fine to coarse sand filter.
					1.3		5.0-7.0 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, iron and organic staining, little light gray (N7) mottling, moist.		3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
1040.0							7.0-7.5 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, little light gray (N7) mottling, damp.		
			3	DPT	2.0	42 / 42	7.5-10.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, damp.		13.0-13.5 ft-bgs: Collapsed hole.
1035.0							10.0-12.5 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace fine Gravel, iron and organic staining, damp.		
							12.5-13.5 ft-bgs: Stiff, medium dark gray (N4), fine to medium SANDY CLAY, some Silt, little iron and organic staining, damp.		
1030.0									
1025.0									

LITHOLOGY LEGEND

Fill (made ground)

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-12

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473148.59 E: 4685712.93
GROUND SURFACE ELEV.: 1048.76
DATUM: N/A
START DATE/TIME: 3/29/2011 12:45:00 PM
END DATE/TIME: 3/29/2011 1:45:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Concrete						0.0-1.0 ft-bgs: Concrete		Steel flush mount with locking cap.
	Stiff, dark yellow brown (10YR 4/2), fine SANDY CLAY, some Silt, trace iron and organic staining, moist.		1	DPT	2.2	36 / 48	1.0-1.25 ft-bgs: Stiff, dark yellow brown (10YR 4/2), fine to medium SANDY CLAY, some Silt, trace iron and organic staining, moist.		0.0-0.75 ft-bgs: Concrete seal.
	Loose, medium yellow brown (10YR 5/4), fine CLAYEY SAND, moist.						1.25-1.75 ft-bgs: Loose, moderate yellow brown (10YR 5/4), fine to medium CLAYEY SAND, moist.		0.75-1.0 ft-bgs: Clean, fine to coarse sand.
1045.0	Firm to stiff, medium yellow brown (10YR 5/4) to medium dark gray (N4), fine to medium SANDY CLAY, trace iron and organic staining, trace fine to medium sand seam (<0.5 cm), moist.						1.75-2.25 ft-bgs: Very soft, moderate yellow brown (10YR 5/4), fine to medium CLAYEY SAND and Silt, moist.		1.0-2.5 ft-bgs: Granular Bentonite.
							2.25-5.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, trace iron and organic staining, trace fine to medium sand seam (<0.5 cm), moist.		2.5-13.0 ft-bgs: Clean, fine to coarse sand filter.
			2	DPT	2.3	30 / 60	5.0-6.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, little iron and organic staining, moist.		3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0							6.0-10.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, iron and organic staining, moist.		
			3	DPT	1.5	36 / 36	10.0-12.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to medium SANDY CLAY, iron and organic staining, moist.		
					0.8		12.0-13.0 ft-bgs: Stiff, medium dark gray (N4), fine to medium SANDY CLAY, iron and organic staining, moist.		
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

Concrete

USCS Low Plasticity Sandy Clay (CLS)

USCS Clayey Sand (SC)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-13

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473150.08 E: 4685780.62
GROUND SURFACE ELEV.: 1048.55
DATUM: N/A
START DATE/TIME: 3/29/2011 2:00:00 PM
END DATE/TIME: 3/29/2011 2:50:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Concrete Soft to stiff, medium yellow brown (10YR 5/4) to medium dark gray (N4), SANDY CLAY, some Silt, little iron and organic staining, trace light gray (N7) mottling, moist.		1	DPT	1.1 1.7	55 / 60	0.0-0.4 ft-bgs: Concrete 0.4-2.5 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron and organic staining, trace light gray (N7) mottling, moist. 2.5-5.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, some iron and organic staining, little light gray (N7) mottling, moist.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-1.0 ft-bgs: Clean, fine to coarse sand. 1.0-2.5 ft-bgs: Granular Bentonite. 2.5-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1045.0			2	DPT	2.2	30 / 60	5.0-5.5 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, some iron and organic staining, little light gray (N7) mottling, moist. 5.5-7.5 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, some iron and organic staining, moist. 7.5-9.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, some iron and organic staining, moist.		
1040.0			3	DPT	2.8	26 / 36	9.0-10.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4) fine to coarse SANDY CLAY, some Silt, some iron and organic staining, some medium dark gray (N4) mottling, moist. 10.0-13.0 ft-bgs: Stiff, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, some medium dark gray (N4) mottling, moist.		
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

Concrete

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-14

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473151.65 E: 4685836.52
GROUND SURFACE ELEV.: 1048.24
DATUM: N/A
START DATE/TIME: 3/29/2011 3:05:00 PM
END DATE/TIME: 3/29/2011 4:00:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Concrete Very soft to frim, medium yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron and organic staining, trace light gray (N7) mottling, moist.		1	DPT	1.1 1.0	52 / 60	0.0-0.4 ft-bgs: Concrete 0.4-2.5 ft-bgs: Very soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron and organic staining, trace light gray (N7) mottling, moist. 2.5-5.0 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron and organic staining, trace light gray (N7) mottling, moist.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-1.0 ft-bgs: Clean, fine to coarse sand. 1.0-3.0 ft-bgs: Granular Bentonite. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1045.0			2	DPT	1.6 1.4	58 / 60	5.0-9.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace fine Gravel, little iron and organic staining, trace light gray (N7) mottling, moist. 9.0-9.5 ft-bgs: Very soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace fine Gravel, little iron and organic staining, wet. 9.5-10.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace fine Gravel, little iron and organic staining, moist.		
1040.0			3	DPT	2.1	34 / 36	10.0-11.5 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace fine Gravel, little iron and organic staining, moist. 11.5-12.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace fine Gravel, and iron and organic staining, medium dark gray (N4) mottling, moist. 12.0-13.0 ft-bgs: Firm, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, trace fine Gravel, medium dark gray (N4) mottling, moist.		
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

Concrete

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-15

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473346.3 E: 4685811.61
GROUND SURFACE ELEV.: 1050.66
DATUM: N/A
START DATE/TIME: 3/29/2011 4:15:00 PM
END DATE/TIME: 3/29/2011 5:45:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Stiff, grayish black (N2), SILTY CLAY, some roots and organics, moist.								Steel flush mount with locking cap.
	Stiff, grayish black (N2), SILTY CLAY, little fine Sand, light olive gray (5Y 5/2) mottling, moist.		1	DPT	0.2 0.2	44 / 60	0.0-0.5 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, some roots and organics, moist. 0.5-3.5 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, little fine Sand, moist. 3.5-4.0 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, little fine Sand, light olive gray (5Y 5/2) mottling, moist. 4.0-5.0 ft-bgs: Soft, light olive gray (5Y 5/2), fine SANDY CLAY, some Silt, trace iron staining, moist.		0.0-0.75 ft-bgs: Concrete seal. 0.75-1.0 ft-bgs: Clean, fine to coarse sand. 1.0-2.5 ft-bgs: Granular Bentonite. 2.5-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
	Very soft to stiff, light olive gray (5Y 5/2) to medium yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, trace iron staining, moist.								
1045.0			2	DPT	1.0 0.9	55 / 60	5.0-6.0 ft-bgs: Soft, light olive gray (5Y 5/2), fine SANDY CLAY, some Silt, trace iron staining, moist. 6.0-8.0 ft-bgs: Very soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron staining and trace organic staining, moist. 8.0-10.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron staining and trace organic staining, moist.		
1040.0			3	DPT	2.1	36 / 36	10.0-13.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron staining and trace organic staining, moist.		
1035.0									
1030.0									

LITHOLOGY LEGEND

Topsoil

USCS Silt (ML)

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-16

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473313.72 E: 4685811.66
GROUND SURFACE ELEV.: 1050.64
DATUM: N/A
START DATE/TIME: 3/30/2011 8:15:00 AM
END DATE/TIME: 3/30/2011 9:35:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Stiff, grayish black (N2), SILTY CLAY, some roots and organics, moist.						0.0-0.5 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, some roots and organics, moist.		Steel flush mount with locking cap.
	Stiff, grayish black (N2), SILTY CLAY, little fine Sand, light olive gray (5Y 5/2) mottling, moist.		1	DPT	1.9	58 / 60	0.5-2.5 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, little fine Sand, moist.		0.0-0.75 ft-bgs: Concrete seal.
	Soft to stiff, light olive gray (5Y 5/2), fine SANDY CLAY, some Silt, trace iron and organic staining, some medium yellow brown (10YR 5/4) mottling, moist.				1.3		2.5-3.0 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, little fine Sand, light olive gray (5Y 5/2) mottling, moist. 3.0-3.5 ft-bgs: Soft, light olive gray (5Y 5/2), fine SANDY CLAY, some Silt, trace iron and organic staining, moist. 3.5-5.0 ft-bgs: Soft, light olive gray (5Y 5/2), fine SANDY CLAY, some Silt, trace iron and organic staining, some moderate yellow brown (10YR 5/4) mottling, moist.		0.75-1.0 ft-bgs: Clean, fine to coarse sand. 1.0-2.5 ft-bgs: Granular Bentonite. 2.5-13.0 ft-bgs: Clean, fine to coarse sand filter.
1045.0			2	DPT	2.3	58 / 60	5.0-9.0 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace iron and organic staining, some light olive gray (5Y 5/2) mottling, moist. 7.5 ft-bgs: >1 cm zone of very soft, wet soil. 8.9 ft-bgs: >3 cm zone of very soft, wet soil.		3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
					3.1		9.0-10.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace iron and organic staining, some light olive gray (5Y 5/2) mottling, moist.		
1040.0			3	DPT	4.6	30 / 36	10.0-11.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, trace iron and organic staining, some light olive gray (5Y 5/2) mottling, moist. 11.0-13.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, iron and organic staining, some light olive gray (5Y 5/2) mottling, moist.		
1035.0									
1030.0									

LITHOLOGY LEGEND

Topsoil

USCS Silt (ML)

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-17

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473291.78 E: 4685808.33
GROUND SURFACE ELEV.: 1050.59
DATUM: N/A
START DATE/TIME: 3/30/2011 9:40:00 AM
END DATE/TIME: 3/30/2011 10:35:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Stiff, grayish black (N2), SILTY CLAY, some roots and organics, moist.		1	DPT	1.5	50 / 60	0.0-1.0 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, some roots and organics, moist.		Steel flush mount with locking cap.
	Soft, grayish black (N2), SILTY CLAY, little fine Sand, moist.						1.0-1.5 ft-bgs: Soft, grayish black (N2), SILTY CLAY, little fine Sand, moist.		0.0-0.75 ft-bgs: Concrete seal.
	Loose, medium yellow brown (10YR 5/4), fine to coarse SAND, moist.						1.5-2.0 ft-bgs: Loose, moderate yellow brown (10YR 5/4), fine to coarse SAND, moist.		0.75-1.0 ft-bgs: Clean, fine to coarse sand.
	Stiff, grayish black (N2), SILTY CLAY, little fine to medium Sand, light olive gray (5Y 5/2) mottling, moist.				2.1		2.0-2.75 ft-bgs: Stiff, grayish black (N2), SILTy CLAY, little fine to medium Sand, light olive gray (5Y 5/2) mottling, moist.		1.0-2.5 ft-bgs: Granular Bentonite.
	Firm to stiff, ligth olive gray (5Y 5/2) to moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, trace organic staining, moist.						2.75-3.0 ft-bgs: Stiff, ligth olive gray (5Y 5/2), fine SANDY CLAY, some Silt, trace organic staining, moist.		2.5-13.0 ft-bgs: Clean, fine to coarse sand filter.
1045.0			2	DPT	2.2	54 / 60	3.0-5.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, little iron and organic staining, some olive gray (5Y 5/2) mottling, moist.		3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
					11.6		5.0-7.5 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, little iron and organic staining, some olive gray (5Y 5/2) mottling, moist.		
							7.5-8.5 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, little iron and organic staining, some olive gray (5Y 5/2) mottling, moist. Grayish blue (SPB 5/2) discoloration, odor.		
1040.0			3	DPT	2.7	30 / 36	8.5-10.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, iron and organic staining, some olive gray (5Y 5/2) mottling, moist.		
							10.0-13.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, iron and organic staining, some olive gray (5Y 5/2) mottling, moist.		
1035.0									
1030.0									

LITHOLOGY LEGEND

Topsoil
USCS Low Plasticity Sandy Clay (CLS)
USCS Silt (ML)
USCS Well-graded Sand (SW)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-18

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473227.53 E: 4685850.88
GROUND SURFACE ELEV.: 1049.61
DATUM: N/A
START DATE/TIME: 3/30/2011 10:50:00 AM
END DATE/TIME: 3/30/2011 12:10:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Concrete						0.0-0.5 ft-bgs: Concrete		Steel flush mount with locking cap.
	Loose, medium yellow brown (10YR 5/4), fine to coarse SAND, moist.						0.5-0.75 ft-bgs: Loose, moderate yellow brown (10YR 5/4), fine to coarse SAND, moist.		0.0-0.75 ft-bgs: Concrete seal.
	Stiff, grayish black (N2), SILTY CLAY, little fine Sand, trace iron staining, moist.		1	DPT	2.0	44 / 60	0.75-1.5 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, little fine Sand, moist.		0.75-1.0 ft-bgs: Clean, fine to coarse sand.
	Soft to stiff, medium yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, some iron and organic staining, trace light olive gray (5Y 5/2) mottling, moist.				1.2		1.5-2.5 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, little fine Sand, trace iron staining, moist.		1.0-1.5 ft-bgs: Granular Bentonite.
1045.0							2.5-3.0 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, little fine Sand, trace iron staining, trace moderate yellow brown (10YR 5/4) mottling, moist.		1.5-12.0 ft-bgs: Clean, fine to coarse sand filter.
					1.4		3.0-5.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, some iron and organic staining, trace light olive gray (5Y 5/2) mottling, moist.		2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
			2	DPT		55 / 60	5.0-6.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, some iron and organic staining, trace light olive gray (5Y 5/2) mottling, moist.		
					1.2		6.0-6.5 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, some iron and organic staining, trace light olive gray (5Y 5/2) mottling, moist.		
1040.0									
			3	DPT	2.7	22 / 24	6.5-8.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, some iron and organic staining, trace light olive gray (5Y 5/2) mottling, moist.		
							8.0-10.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, and iron and organic staining, trace light olive gray (5Y 5/2) mottling, moist.		
1035.0							10.0-12.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, and iron and organic staining, trace light olive gray (5Y 5/2) mottling, moist.		
1030.0									
1025.0									

LITHOLOGY LEGEND

Concrete

USCS Low Plasticity Sandy Clay (CLS)

USCS Well-graded Sand (SW)

USCS Silt (ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-19

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473290.59 E: 4685723.36
GROUND SURFACE ELEV.: 1050.73
DATUM: N/A
START DATE/TIME: 3/30/2011 12:30:00 PM
END DATE/TIME: 3/30/2011 1:40:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Stiff, dark yellow brown (10YR 4/2), SILTY CLAY, some Silt, some fine to coarse Sand, trace gravel, moist.		1	DPT	0.9	58 / 60	0.0-0.75 ft-bgs: Stiff, dark yellow brown (10YR 4/2), SILTY CLAY, some Silt, some fine to coarse Sand, trace gravel, moist.		Steel flush mount with locking cap.
	Soft to firm, medium yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, some iron staining, little organic staining, little light olive gray (5Y 4/2) mottling, moist.				0.7		0.75-2.5 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, some iron staining, little organic staining, little light olive gray (5Y 4/2) mottling, moist.		0.0-0.75 ft-bgs: Concrete seal.
							2.5-5.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, some iron staining, little organic staining, trace light olive gray (5Y 4/2) mottling, moist.		0.75-1.0 ft-bgs: Clean, fine to coarse sand.
1045.0			2	DPT	83.5	30 / 60	5.0-5.5 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, some iron staining, little organic staining, trace light olive gray (5Y 4/2) mottling, moist.		1.0-1.5 ft-bgs: Granular Bentonite.
							5.5-9.0 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, some iron staining, little organic staining, trace light olive gray (5Y 4/2) mottling, moist.		1.5-12.0 ft-bgs: Clean, fine to coarse sand filter.
							9.0-10.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, trace iron and organic staining, trace light olive gray (5Y 4/2) mottling, moist.		2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0			3	DPT	620	22 / 24	10.0-12.0 ft-bgs: Stiff, moderate yellow brown (10YR 5/4), fine SANDY CLAY, some Silt, trace iron and organic staining, trace light olive gray (5Y 4/2) mottling, moist.		
1035.0									
1030.0									

LITHOLOGY LEGEND

Fill (made ground)

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-20

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473246.16 E: 4685692.14
GROUND SURFACE ELEV.: 1050.39
DATUM: N/A
START DATE/TIME: 3/30/2011 1:45:00 PM
END DATE/TIME: 3/30/2011 2:45:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Gravel Fill Soft to firm, grayish black (N2), fine to coarse SANDY/SILTY CLAY, some Silt, moist.		1	DPT	0.2 0.3	50 / 60	0.0-0.25 ft-bgs: Gravel Fill 0.25-2.5 ft-bgs: Firm, grayish black (N2), fine to coarse SANDY CLAY, some Silt, moist. 2.5-5.0 ft-bgs: Soft, light olive gray (5Y 5/2), SILTY CLAY, little, iron staining, moist. 4.25 ft-bgs: < 1cm fine Sand seam, wet.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-1.0 ft-bgs: Clean, fine to coarse sand. 1.0-1.5 ft-bgs: Granular Bentonite. 1.5-12.0 ft-bgs: Clean, fine to coarse sand filter. 2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1045.0	Loose, medium yellow brown (10YR 5/4), fine to coarse SAND, wet. Soft to firm, medium yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron staining, trace organic staining, moist.		2	DPT	0.6 0.2	53 / 60	5.0-5.5 ft-bgs: Loose, moderate yellow brown (10YR 5/4), fine to coarse SAND, wet. 5.5-6.0 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron staining, trace organic staining, moist. 6.0-7.0 ft-bgs: Firm, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron staining, trace organic staining, moist.		
1040.0			3	DPT	1.0	21 / 24	7.0-10.0 ft-bgs: Soft, moderate yellow brown (10YR 5/4), fine to coarse SANDY CLAY, some Silt, little iron staining, trace organic staining, moist. 10.0-12.0 ft-bgs: Stiff, dark yellow brown (10YR 4/2), fine to coarse SANDY CLAY, some Silt, some iron staining, trace organic staining, moist.		
1035.0									
1030.0									

LITHOLOGY LEGEND

Fill (made ground)
USCS Low Plasticity Sandy Clay (CLS)
USCS Low Plasticity Silty Clay (CL-ML)
USCS Well-graded Sand (SW)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-21

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473266.47 E: 4685590.13
GROUND SURFACE ELEV.: 1050.37
DATUM: N/A
START DATE/TIME: 3/30/2011 3:55:00 PM
END DATE/TIME: 3/30/2011 4:40:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Very stiff to stiff, black (N1), CLAY, odor, moist.		1	DPT	6.0 31.1	54 / 60	0.0-0.5 ft-bgs: Concrete 0.5-2.0 ft-bgs: Very stiff, black (N1), CLAY, odor, moist. 2.0-4.0 ft-bgs: Stiff, black (N1), CLAY, odor, moist. 4.0-5.0 ft-bgs: Firm, medium bluish gray (5B 5/1), fine SANDY CLAY, some Silt, odor, moist.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-1.0 ft-bgs: Clean, fine to coarse sand. 1.0-1.5 ft-bgs: Granular Bentonite. 1.5-12.0 ft-bgs: Clean, fine to coarse sand filter. 2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
	Very soft to firm, medium bluish gray (5B 5/1), fine SANDY CLAY, some Silt, odor, moist.								
1045.0			2	DPT	119	33 / 60	5.0-9.4 ft-bgs: Very soft, medium bluish gray (5B 5/1), fine SANDY CLAY, some Silt, odor, moist. 9.4-9.8 ft-bgs: Loose, medium bluish gray (5B 5/1), fine SAND, odor, wet. 9.8-10.0 ft-bgs: Firm, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, odor, moist.		
	Loose, medium bluish gray (5B 5/1), fine SAND, odor, wet.								
1040.0	Firm, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, odor, moist.		3	DPT	10.5	24 / 24	9.8-10.0 ft-bgs: Firm, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, odor, moist. 10.0-12.0 ft-bgs: Firm, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, odor, moist.		
1035.0									
1030.0									

LITHOLOGY LEGEND

Concrete
USCS Poorly-graded Sand (SP)
USCS Low Plasticity Clay (CL)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-21A

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473266.6 E: 4685613.66
GROUND SURFACE ELEV.: 1050.32
DATUM: N/A
START DATE/TIME: 3/30/2011 2:50:00 PM
END DATE/TIME: 3/30/2011 3:50:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete								Well Not Installed
	Very stiff to stiff, black (N1), CLAY, odor, moist.		1	DPT	2.1 75.3	47 / 60			
	Very soft to firm, medium bluish gray (5B 5/1), fine SANDY CLAY, some Silt, odor, moist.								
1045.0			2	DPT	28 9.8	54 / 60			
	Loose, medium bluish gray (5B 5/1), fine SAND, odor, wet.								
1040.0	Firm, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, odor, moist.		3	DPT	N/A	0 / 24			
1035.0									
1030.0									

LITHOLOGY LEGEND

Concrete
USCS Poorly-graded Sand (SP)
USCS Low Plasticity Clay (CL)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-22

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473266.3 E: 4685566.65
GROUND SURFACE ELEV.: 1050.83
DATUM: N/A
START DATE/TIME: 3/30/2011 4:45:00 PM
END DATE/TIME: 3/30/2011 5:45:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Concrete								Steel flush mount with locking cap.
1050.0	Very stiff to stiff, black (N1), CLAY, odor, moist.		1	DPT	7.1	55 / 60	0.0-0.5 ft-bgs: Concrete 0.5-2.0 ft-bgs: Very stiff, black (N1), CLAY, odor, moist. 2.0-3.0 ft-bgs: Stiff, black (N1), CLAY, odor, moist. 3.0-5.0 ft-bgs: Stiff, black (N1), SILTY CLAY, odor, moist.		0.0-0.75 ft-bgs: Concrete seal. 0.75-1.0 ft-bgs: Clean, fine to coarse sand. 1.0-1.5 ft-bgs: Granular Bentonite. 1.5-12.0 ft-bgs: Clean, fine to coarse sand filter. 2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
	Stiff, black (N1), SILTY CLAY, odor, moist.				5.3				
1045.0	Very soft to firm, medium bluish gray (5B 5/1), SILTY CLAY, odor, moist.		2	DPT	23.5	33 / 60	5.0-5.5 ft-bgs: Firm, medium bluish gray (5B 5/1), SILTY CLAY, odor, moist. 5.5-9.5 ft-bgs: Very soft, medium bluish gray (5B 5/1), SILTY CLAY, odor, moist. 9.5-10.0 ft-bgs: Loose, medium bluish gray (5B 5/1), fine to coarse SAND, odor, wet.		
	Loose, medium bluish gray (5B 5/1), fine to coarse SAND, odor, wet.								
1040.0	Loose, medium bluish gray (5B 5/1), medium SILTY SAND, odor, wet.		3	DPT	7.1	24 / 24	10.0-10.5 ft-bgs: Loose, medium bluish gray (5B 5/1), medium SILTY SAND, odor, wet. 10.5-12.0 ft-bgs: Firm, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, odor, moist.		
	Firm, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, odor, moist.								
1035.0									
1030.0									

LITHOLOGY LEGEND

Concrete
USCS Silty Sand (SM)
USCS Low Plasticity Clay (CL)
USCS Low Plasticity Sandy Clay (CLS)
USCS Well-graded Sand (SW)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-23

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473265.78 E: 4685542.41
GROUND SURFACE ELEV.: 1050.79
DATUM: N/A
START DATE/TIME: 3/30/2011 5:50:00 PM
END DATE/TIME: 3/30/2011 6:50:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Very stiff to stiff, black (N1), CLAY, some iron staining, moist.		1	DPT	0.6 0.4	47 / 60	0.0-0.5 ft-bgs: Concrete 0.5-2.0 ft-bgs: Very stiff, black (N1), CLAY, moist. 2.0-3.0 ft-bgs: Stiff, black (N1), CLAY, moist. 3.0-4.0 ft-bgs: Stiff, olive black (5Y 2/1), SILTY CLAY, trace fine Sand, moist. 4.0-5.0 ft-bgs: Stiff, olive black (5Y 2/1), SILTY CLAY, trace fine Sand, some iron staining, moist.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-1.0 ft-bgs: Clean, fine to coarse sand. 1.0-1.5 ft-bgs: Granular Bentonite. 1.5-12.0 ft-bgs: Clean, fine to coarse sand filter. 2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1045.0	Very soft, olive gray (5Y 4/1), fine to medium SANDY CLAY, some Silt, trace iron staining, moist. Loose, medium bluish gray (5B 5/1), fine to coarse SILTY SAND, wet.		2	DPT	0.5 4.8	40 / 60	5.0-6.0 ft-bgs: Very soft, olive gray (5Y 4/1), fine to medium SANDY CLAY, some Silt, trace iron staining, moist. 6.0-9.75 ft-bgs: Loose, medium bluish gray (5B 5/1), fine to coarse SILTY SAND, wet. 9.75-10.0 ft-bgs: Stiff, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, and iron staining, moist.		
1040.0	Stiff, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, and iron staining, moist.		3	DPT	0.3	24 / 24	10.0-10.5 ft-bgs: Stiff, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, and iron staining, moist. 10.5-12.0 ft-bgs: Stiff, medium dark gray (N4), fine to coarse SANDY CLAY, some Silt, moist.		
1035.0									
1030.0									

LITHOLOGY LEGEND

Concrete
USCS Silty Sand (SM)
USCS Low Plasticity Clay (CL)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Matrix Environmental
DRILLER: Gary

GOLDER INSPECTOR: Joshua Janzen

LOGGED BY: Joshua Nasrallah
LOGGED BY DATE: 4/12/2011
CHECKED BY: James S. Peace
CHECKED BY DATE: 5/13/2011

Golder Associates

BOREHOLE LOG: MW-24 (MIP-20/SB-17)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 18
DEPTH OF SOIL DRILL: 18
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473483.34 E: 4685720.81
GROUND SURFACE ELEV.: 1050.72
DATUM: N/A
START DATE/TIME: 5/2/2012
END DATE/TIME: 5/2/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Compact, brown, medium to coarse SAND, little Gravel. Firm to stiff, gray to brown, SILTY CLAY, trace to little Sand, trace gravel, trace organics.		1	DPT	0.3	48 / 60	0.0-0.75 ft-bgs: Concrete 0.75-1.25 ft-bgs: Compact, moderate brown, 5YR 3/4), medium to coarse subangular SAND, little fine to medium Gravel, moist (SW). 1.25-4.0 ft-bgs: Stiff, olive black (5Y 2/1), SILTY CLAY, trace fine to medium Sand, trace fine to medium Sand, trace organics, moist (ML-CL). 4.0-5.0 ft-bgs: Firm, olive gray (5Y 4/1) SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 2.0-4.0 ft.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-12.0 ft-bgs: Granular Bentonite.
1045.0							5.0-10.0 ft-bgs: Not Sampled.		
1040.0			2	DPT	0.7	56 / 60	10.0-14.0 ft-bgs: Stiff, medium gray (N5) mottled moderate yellowish brown (10YR 5/4), SILTY CLAY, little medium to coarse sand, trace fine gravel, slightly moist (ML-CL). 14.0-15.0 ft-bgs: Firm, medium dark gray (N4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 10.0-12.0 ft.		12.0-18.0 ft-bgs: Clean, fine to coarse sand filter. 13.0-18.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
1035.0									
1030.0									

LITHOLOGY LEGEND

Concrete

USCS Well-graded Sand (SW)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-25D (MIP-32/LIF-03/SB-13)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 29
DEPTH OF SOIL DRILL: 29
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473438.13 E: 4685731.44
GROUND SURFACE ELEV.: 1050.78
DATUM: N/A
START DATE/TIME: 5/2/2012
END DATE/TIME: 5/2/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Firm to stiff, black to gray, SILTY CLAY, little to trace Sand, trace gravel, trace organics.		1	DPT	3.2	53 / 60	0.0-0.75 ft-bgs: Concrete 0.75-4.0 ft-bgs: Stiff, olive black (5Y 2/1), SILTY CLAY, trace medium to coarse Sand, trace organics, slightly moist (ML-CL). 4.0-5.0 ft-bgs: Firm, medium dark gray (N4), SILTY CLAY, little fine to medium Sand, trace fine Gravel, slightly moist (ML-CL). Sample collected 1.0-3.0 ft. Sample collected 4.0-6.0 ft.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-23.0 ft-bgs: Granular Bentonite.
1045.0			2	DPT	22.1	54 / 60	5.0-10.0 ft-bgs: Firm, medium dark gray (N4), SILTY CLAY, little fine to medium Sand, trace fine Gravel, slightly moist (ML-CL).		
1040.0	Soft, gray, SILT, some Sand, some Clay. Firm to stiff, gray to brown, CLAYEY SILT to SILTY CLAY, little to trace Sand, little to trace gravel.		3	DPT	36.9	58 / 60	10.0-11.5 ft-bgs: Soft, medium dark gray (N4), SILT, some Clay, some fine to coarse Sand, wet (ML). 11.5-13.0 ft-bgs: Firm, medium dark gray (N4), CLAYEY SILT, little medium to coase Sand, trace fine Gravel, moist (ML-CL). 13.0-15.0 ft-bgs: Stiff, olive gray (5Y 4/1) mottled moderate brown (5YR 3/4) SILTY CLAY, trace medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sample collected 10.0-12.0 ft.		
1035.0			4	DPT	2.5	57 / 60	15.0-20.0 ft-bgs: Stiff, olive gray (5Y 4/1), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, moist (ML-CL). Sample collected 16.0-18.0 ft.		
1030.0			5	DPT	6.7	43 / 60	20.0-24.0 ft-bgs: Stiff, olive gray (5Y 4/1), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, moist (ML-CL). 24.0-25.0 ft-bgs: Stiff, olive gray (5Y 4/1), SILTY CLAY, little fine Gravel, trace medium to coarse Sand (ML-CL).		23.0-29.0 ft-bgs: Clean, fine to coarse sand filter.

LITHOLOGY LEGEND

Concrete

USCS Low Plasticity Silty Clay (CL-ML)

USCS Silt (ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-25D (MIP-32/LIF-03/SB-13)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 29
DEPTH OF SOIL DRILL: 29
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473438.13 E: 4685731.44
GROUND SURFACE ELEV.: 1050.78
DATUM: N/A
START DATE/TIME: 5/2/2012
END DATE/TIME: 5/2/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Firm to stiff, gray to brown, CLAYEY SILT to SILTY CLAY, little to trace Sand, little to trace gravel.		6	DPT	0.0	57 / 60	25.0-30.0 ft-bgs: Stiff, olive gray (5Y 4/1), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, little fine Gravel, moist (ML-CL). Sample collected 26.0-28.0 ft.		23.0-29.0 ft-bgs: Clean, fine to coarse sand filter. 24.0-29.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
1020.0									
1015.0									
1010.0									
1005.0									

LITHOLOGY LEGEND

Concrete

USCS Low Plasticity Silty Clay (CL-ML)

USCS Silt (ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-25S (MIP 32/LIF-03/SB-13)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 18
DEPTH OF SOIL DRILL: 18
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473437.68 E: 4685727.64
GROUND SURFACE ELEV.: 1050.76
DATUM: N/A
START DATE/TIME: 5/2/2012
END DATE/TIME: 5/2/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Firm to stiff, black to gray, SILTY CLAY, little to trace Sand, trace gravel, trace organics.		1	DPT	3.2	53 / 60	0.0-0.75 ft-bgs: Concrete 0.75-4.0 ft-bgs: Stiff, olive black (5Y 2/1), SILTY CLAY, trace medium to coarse Sand, trace organics, slightly moist (ML-CL). 4.0-5.0 ft-bgs: Firm, medium dark gray (N4), SILTY CLAY, little fine to medium Sand, trace fine Gravel, slightly moist (ML-CL). Sample collected 1.0-3.0 ft. Sample collected 4.0-6.0 ft.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-13.0 ft-bgs: Granular Bentonite.
1045.0			2	DPT	22.1	54 / 60	5.0-10.0 ft-bgs: Firm, medium dark gray (N4), SILTY CLAY, little fine to medium Sand, trace fine Gravel, slightly moist (ML-CL).		
1040.0	Soft, gray, SILT, some Sand, some Clay. Firm to stiff, gray to brown, CLAYEY SILT to SILTY CLAY, little to trace Sand, little to trace gravel.		3	DPT	36.9	58 / 60	10.0-11.5 ft-bgs: Soft, medium dark gray (N4), SILT, some Clay, some fine to coarse Sand, wet (ML). 11.5-13.0 ft-bgs: Firm, medium dark gray (N4), CLAYEY SILT, little medium to coase Sand, trace fine Gravel, moist (ML-CL). 13.0-15.0 ft-bgs: Stiff, olive gray (5Y 4/1) mottled moderate brown (5YR 3/4) SILTY CLAY, trace medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sample collected 10.0-12.0 ft.		13.0-19.0 ft-bgs: Clean, fine to coarse sand filter. 14.0-19.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
1035.0			4	DPT	2.5	57 / 60	15.0-20.0 ft-bgs: Stiff, olive gray (5Y 4/1), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, moist (ML-CL). Sample collected 16.0-18.0 ft.		
1030.0			5	DPT	6.7	43 / 60	20.0-24.0 ft-bgs: Stiff, olive gray (5Y 4/1), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, moist (ML-CL). 24.0-25.0 ft-bgs: Stiff, olive gray (5Y 4/1), SILTY CLAY, little fine Gravel, trace medium to coarse Sand (ML-CL).		

LITHOLOGY LEGEND

Concrete | USCS Low Plasticity Silty Clay (CL-ML) | USCS Silt (ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-25S (MIP 32/LIF-03/SB-13)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 18
DEPTH OF SOIL DRILL: 18
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473437.68 E: 4685727.64
GROUND SURFACE ELEV.: 1050.76
DATUM: N/A
START DATE/TIME: 5/2/2012
END DATE/TIME: 5/2/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Firm to stiff, gray to brown, CLAYEY SILT to SILTY CLAY, little to trace Sand, little to trace gravel.		6	DPT	0.0	57 / 60	25.0-30.0 ft-bgs: Stiff, olive gray (5Y 4/1), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, little fine Gravel, moist (ML-CL). Sample collected 26.0-28.0 ft.		
1020.0									
1015.0									
1010.0									
1005.0									

LITHOLOGY LEGEND

Concrete

USCS Low Plasticity Silty Clay (CL-ML)

USCS Silt (ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-26D (MIP-21/SB-14)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 25
DEPTH OF SOIL DRILL: 25
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473381.54 E: 4685687.58
GROUND SURFACE ELEV.: 1050.78
DATUM: N/A
START DATE/TIME: 5/2/2012
END DATE/TIME: 5/2/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0							0.0-5.0 ft-bgs: Not Sampled.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-19.0 ft-bgs: Granular Bentonite.
1045.0	Firm to stiff, gray to brown, SILTY CLAY, little to trace Sand, trace gravel.		1	DPT	3.8	30 / 60	5.0-8.5 ft-bgs: Firm, light olive gray (5Y 6/1) and moderate yellowish brown (10YR 5/4), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, moist (ML-CL). 8.5-10.0 ft-bgs: Firm, light olive gray (5Y 6/1) and moderate yellowish brown (10YR 5/4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 7.0-9.0 ft.		
1040.0			2	DPT	67.2	57 / 60	10.0-13.5 ft-bgs: Stiff, light olive gray (5Y 6/1) and moderate brown (5Y 3/4), SILTY CLAY, trace fine gravel, trace medium to coarse Sand, slightly moist (ML-CL). 13.5-15.0 ft-bgs: Stiff, medium dark gray (N4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 12.0-14.0 ft.		
1035.0							15.0-20.0 ft-bgs: Not Sampled.		19.0-25.0 ft-bgs: Clean, fine to coarse sand filter.
1030.0			3	DPT	2.6	48 / 60	20.0-25.0 ft-bgs: Stiff, medium dark gray (N4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 23.0-25.0 ft.		20.0-25.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

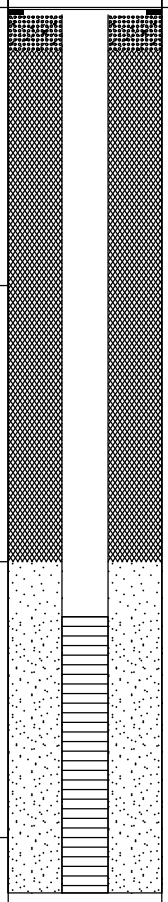
Golder Associates

BOREHOLE LOG: MW-26S (MIP-21/SB-14)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 16
DEPTH OF SOIL DRILL: 16
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473379.38 E: 4685687.74
GROUND SURFACE ELEV.: 1050.72
DATUM: N/A
START DATE/TIME: 5/2/2012
END DATE/TIME: 5/2/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0							0.0-5.0 ft-bgs: Not Sampled.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-10.0 ft-bgs: Granular Bentonite.
1045.0	Firm to stiff, gray to brown, SILTY CLAY, little to trace Sand, trace gravel.		1	DPT	3.8	30 / 60	5.0-8.5 ft-bgs: Firm, light olive gray (5Y 6/1) and moderate yellowish brown (10YR 5/4), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, moist (ML-CL). 8.5-10.0 ft-bgs: Firm, light olive gray (5Y 6/1) and moderate yellowish brown (10YR 5/4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 7.0-9.0 ft.		
1040.0			2	DPT	67.2	57 / 60	10.0-13.5 ft-bgs: Stiff, light olive gray (5Y 6/1) and moderate brown (5Y 3/4), SILTY CLAY, trace fine gravel, trace medium to coarse Sand, slightly moist (ML-CL). 13.5-15.0 ft-bgs: Stiff, medium dark gray (N4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 12.0-14.0 ft.		10.0-16.0 ft-bgs: Clean, fine to coarse sand filter. 11.0-16.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
1035.0							15.0-20.0 ft-bgs: Not Sampled.		
1030.0			3	DPT	2.6	48 / 60	20.0-25.0 ft-bgs: Stiff, medium dark gray (N4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 23.0-25.0 ft.		

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-27 (MIP-30/LIF-15/SB-03)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 15
DEPTH OF SOIL DRILL: 15
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473322.73 E: 4685551.9
GROUND SURFACE ELEV.: 1050.72
DATUM: N/A
START DATE/TIME: 5/3/2012
END DATE/TIME: 5/3/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Compact, moderate brown, fine to coarse SAND, some Silt. Firm to very stiff, black to gray, SILTY CLAY, some to trace Sand, trace Gravel.		1	DPT	15.5	49 / 60	0.0-0.75 ft-bgs: Concrete 0.75-1.25 ft-bgs: Compact, moderate brown (5YR 3/4), fine to coarse SAND, some silt, wet (SW). 1.25-5.0 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, little fine to medium Sand, trace organics, slight odor, slightly moist (ML-CL). Sampled collected 2.0-4.0 ft.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-9.0 ft-bgs: Granular Bentonite.
1045.0			2	DPT	111.4	35 / 60	5.0-8.5 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, little fine to medium Sand, trace organics, slight odor, slightly moist (ML-CL). 8.5-10.0 ft-bgs: Stiff, dark gray (5G 4/1), SILTY CLAY, trace fine gravel, trace fine to medium Sand, slightly moist (ML-CL). Sampled collected 6.0-8.0 ft.		9.0-15.0 ft-bgs: Clean, fine to coarse sand filter. 10.0-15.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
1040.0			3	DPT	3.9	22 / 60	10.0-15.0 ft-bgs: Very stiff, dark greenish gray (5G 4/1), mottled moderate brown (5YR 4/4), SILTY CLAY, some fine to coarse Sand, trace fine to medium Gravel, slightly moist (ML-CL).		
1035.0			4	DPT	31.3	55 / 60	15.0-16.25 ft-bgs: Firm, dark greenish gray (5G 4/1) and olive black (5Y 2/1), SILTY CLAY, some medium to coarse Sand, trace fine Gravel, odor, moist (ML-CL). 16.25-17.75 ft-bgs: Stiff, brownish gray (5YR 4/1), SILTY CLAY, trace medium to coarse Sand, slightly moist (ML-CL). 17.75-20.0 ft-bgs: Firm, greenish black (5GY 2/1) SILTY CLAY, trace medium to coarse sand, slightly moist (ML-CL). Sampled collected 16.0-18.0 ft.		
1030.0			5	DPT	0.5	36 / 60	20.0-25.0 ft-bgs: Firm, greenish black (5G 2/1), SILTY CLAY, trace medium to coarse Sand, moist. (ML-CL) Sampled collected 22.0-24.0 ft.		

LITHOLOGY LEGEND

Concrete

USCS Well-graded Sand (SW)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-28 (MIP-34/SB-02)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 18
DEPTH OF SOIL DRILL: 18
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473352.03 E: 4685743
GROUND SURFACE ELEV.: 1050.8
DATUM: N/A
START DATE/TIME: 5/3/2012
END DATE/TIME: 5/3/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Compact, moderate brown, SILTY SAND. Firm to stiff, black to gray to brown, SILTY CLAY, little to trace Sand, trace Gravel.		1	DPT	5.1	47 / 60	0.0-0.75 ft-bgs: Concrete 0.7-1.5 ft-bgs: Compact, moderate brown (5YR 3/4), medium to coarse, SILTY SAND, wet. 1.5-2.25 ft-bgs: Firm, olive black (5Y 2/1), SILTY CLAY, trace medium to coarse Sand, moist. 2.25-5.0 ft-bgs: Stiff, medium light gray (NG) mottled moderate yellowish brown (10YR 5/4), SILTY CLAY, little fine to medium Sand, trace fine Gravel, slightly moist (ML-CL).		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-12.0 ft-bgs: Granular Bentonite.
1045.0							5.0-13.0 ft-bgs: Not sampled.		
1040.0									12.0-18.0 ft-bgs: Clean, fine to coarse sand filter. 13.0-18.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
1035.0			2	DPT	548	60 / 60	13.0-18.0 ft-bgs: Stiff, dark gray (N3), SILTY CLAY, trace fine to medium Gravel, trace medium to coarse Sand, slightly moist (ML-CL). Sample collected 14.0-16.0 ft.		
1030.0							18.0-25.0 ft-bgs: Not sampled.		

LITHOLOGY LEGEND

Concrete

USCS Well-graded Sand (SW)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-28 (MIP-34/SB-02)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 18
DEPTH OF SOIL DRILL: 18
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473352.03 E: 4685743
GROUND SURFACE ELEV.: 1050.8
DATUM: N/A
START DATE/TIME: 5/3/2012
END DATE/TIME: 5/3/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Firm to stiff, black to gray to brown, SILTY CLAY, little to trace Sand, trace Gravel.		3	DPT	3.0	57 / 60	25.0-30.0 ft-bgs: Stiff, dark gray (N3), SILTY CLAY, trace fine Gravel, trace fine to medium Sand, slightly moist (ML-CL). Sample collected 28.0-30.0 ft.		
1020.0									
1015.0									
1010.0									
1005.0									

LITHOLOGY LEGEND

Concrete

USCS Well-graded Sand (SW)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-29 (MIP-03/LIF-02/SB-15)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 21
DEPTH OF SOIL DRILL: 21
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473290.58 E: 4685720.39
GROUND SURFACE ELEV.: 1050.61
DATUM: N/A
START DATE/TIME: 5/3/2012
END DATE/TIME: 5/3/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-15.0 ft-bgs: Granular Bentonite.
1045.0							0.0-10.0 ft-bgs: Not Sampled.		
1040.0	Firm to stiff, brown to gray, SILTY CLAY, little to trace Sand, little to trace gravel.		1	DPT	977.3	58 / 60	10.0-12.5 ft-bgs: Firm, moderate yellowish brown (10YR 5/4) mottled with moderate brown (5Y 3/4), SILTY CLAY, trace fine gravel, trace medium to coarse Sand, moist (ML-CL). 12.5-14.25 ft-bgs: Firm, moderate yellowish brown (10YR 5/4) mottled with moderate brown (5Y 3/4), SILTY CLAY, little fine gravel, little medium to coarse Sand, moist (ML-CL). 14.25-15.0 ft-bgs: Stiff, medium dark gray (N4) SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 13.0-15.0 ft.		
1035.0							15.0-17.0 ft-bgs: Not Sampled.		15.0-21.0 ft-bgs: Clean, fine to coarse sand filter. 16.0-21.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
1030.0			2	DPT	0.7	56 / 60	17.0-22.0 ft-bgs: Firm, medium dark gray (N4), SILTY CLAY, trace fine to medium Gravel, trace medium to coarse Sand, moist (ML-CL). Sampled collected 19.0-21.0 ft.		

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-30 (MIP-05/LIF-17/SB-16)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 26
DEPTH OF SOIL DRILL: 26
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473267.46 E: 4685592.54
GROUND SURFACE ELEV.: 1050.35
DATUM: N/A
START DATE/TIME: 5/3/2012
END DATE/TIME: 5/3/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-20.0 ft-bgs: Granular Bentonite.
1045.0							0.0-10.0 ft-bgs: Not Sampled.		
1040.0	Stiff, gray, SILTY CLAY, little Sand, little to trace gravel.		1	DPT	0.5	56 / 60	10.0-15.0 ft-bgs: Stiff, medium dark gray (N4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 12.0-14.0 ft.		
1035.0			2	DPT	0.3	58 / 60	15.0-20.0 ft-bgs: Stiff, medium dark gray (N4), SILTY CLAY, little fine to medium Gravel, little medium to coarse Sand, moist (ML-CL). Sampled collected 18.0-20.0 ft.		
1030.0							20.0-22.0 ft-bgs: Not Sampled.		20.0-26.0 ft-bgs: Clean, fine to coarse sand filter. 21.0-26.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
			3	DPT	0.6	58 / 60	22.0-27.0 ft-bgs: Stiff, medium dark gray (N4), SILTY CLAY, little fine to medium Gravel, little medium to coarse Sand, moist (ML-CL). Sampled collected 24.0-26.0 ft.		

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-30 (MIP-05/LIF-17/SB-16)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 26
DEPTH OF SOIL DRILL: 26
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473267.46 E: 4685592.54
GROUND SURFACE ELEV.: 1050.35
DATUM: N/A
START DATE/TIME: 5/3/2012
END DATE/TIME: 5/3/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Stiff, gray, SILTY CLAY, little Sand, little to trace gravel.		3	DPT	0.6	58 / 60			
1020.0									
1015.0									
1010.0									
1005.0									

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-31 (MIP-15/SB-01)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 18
DEPTH OF SOIL DRILL: 18
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473267.04 E: 4685852.18
GROUND SURFACE ELEV.: 1050.76
DATUM: N/A
START DATE/TIME: 5/3/2012
END DATE/TIME: 5/3/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Compact, moderate brown, medium to coarse SAND. Stiff, olive black, SANDY SILT, some Sand. Very stiff to firm, gray to brown to black, SILTY CLAY, trace gravel, trace to some Sand, trace clay.		1	DPT	28.2	44 / 60	0.0-0.7 ft-bgs: Concrete 0.7-2.25 ft-bgs: Compact, moderate brown (5YR 4/4), medium to coarse SAND, wet (SW). 2.25-3.5 ft-bgs: Stiff, olive black (5Y 2/1), SANDY SILT, some medium to coarse Sand, moist (SM). 3.5-5.0 ft-bgs: Stiff, olive gray (5Y 4/1), SILTY CLAY, some medium to coa rse Sand, moist (ML-CL). Sampled collected 2.0-4.0 ft.		Steel flush mount with locking cap. 0.0-0.75 ft-bgs: Concrete seal. 0.75-12.0 ft-bgs: Granular Bentonite.
1045.0			2	DPT	52.0	47 / 60	5.0-7.75 ft-bgs: Stiff, medium bluish gray (5B 5/1), SILTY CLAY, little medium Sand, slightly moist (ML-CL). 7.75-10.0 ft-bgs: Stiff, moderate yellowish brown (10YR 5/4), mottled medium light gray (NG) SILTY CLAY, trace medium Sand, slightly moist (ML-CL). Sampled collected 7.0-9.0 ft.		
1040.0			3	DPT	38.1	60 / 60	10.0-11.0 ft-bgs: Stiff, mottled moderate yellowish brown (10YR 5/4) and medium light gray (NG), SILTY CLAY, trace medium Sand, slightly moist (ML-CL). 11.0-11.2 ft-bgs: Compact, grayish brown (5YR 3/2), medium to coarse SILTY SAND, trace Clay, wet (SM). 11.2-13.0 ft-bgs: Stiff, moderate yellowish brown (10 YR 5/4) mottled medium light gray (N6) and moderate brown (5YR 3/4) SILTY CLAY, trace medium Sand, trace fine Gravel, slightly moist (ML-CL).		12.0-18.0 ft-bgs: Clean, fine to coarse sand filter. 13.0-18.0 ft-bgs: 1.5-inch pre-packed PVC well screen with filter (20/40 sand).
1035.0			4	DPT	46.5	29 / 60	13.0-15.0 ft-bgs: Very stiff, moderate brown (5YR 3/4) and medium light gray (N6) mottled black (N1) SILTY CLAY, trace medium to coarse Sand, slightly moist (ML-CL). 15.0-18.0 ft-bgs: Firm, mottled olive gray (5Y 4/3) and medium gray (N5), SILTY CLAY, trace medium to coarse Sand, slightly moist (ML-CL). 18.0-20.0 ft-bgs: Stiff, dark gray (N3), SILTY CLAY, trace medium to coarse Sand, slightly moist (ML-CL). Sampled collected 15.0-17.0 ft.		
1030.0			5	DPT	3.1	42 / 60	20.0-25.0 ft-bgs: Stiff, dark gray (N3), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, slightly moist (ML-CL).		

LITHOLOGY LEGEND

Concrete
USCS Low Plasticity Silty Clay (CL-ML)
USCS Well-graded Sand (SW)
USCS Sandy Silt (MLS)
USCS Silty Sand (SM)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-31 (MIP-15/SB-01)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 18
DEPTH OF SOIL DRILL: 18
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473267.04 E: 4685852.18
GROUND SURFACE ELEV.: 1050.76
DATUM: N/A
START DATE/TIME: 5/3/2012
END DATE/TIME: 5/3/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Very stiff to firm, gray to brown to black, SILTY CLAY, trace gravel, trace to some Sand, trace clay.		6	DPT	7.2	36 / 60	25.0-30.0 ft-bgs: Stiff, dark gray (N3), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, slightly moist.		
1020.0			7	DPT	0.5	48 / 48	30.0-33.0 ft-bgs: Stiff, dark gray (N3), SILTY CLAY, trace fine Gravel, trace medium to coarse Sand, slightly moist. 33.0-34.0 ft-bgs: Harde, pale yellowish brown (10YR 6/2), SANDY SILT, little Clay, trace fine Gravel, dry. Sampled collected 31.0-33.0 ft.		
	Hard, yellowish brown, SANDY SILT, little Clay, trace Gravel.								
1015.0									
1010.0									
1005.0									

LITHOLOGY LEGEND

Concrete
USCS Low Plasticity Silty Clay (CL-ML)
USCS Well-graded Sand (SW)
USCS Sandy Silt (MLS)
USCS Silty Sand (SM)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

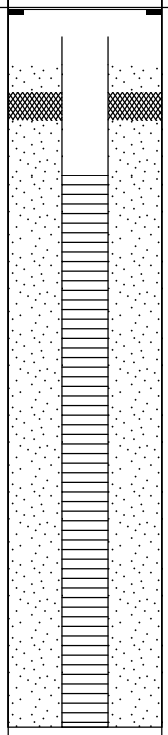
Golder Associates

BOREHOLE LOG: MW-32

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473470.41 E: 4685562.21
GROUND SURFACE ELEV.: 1050.8
DATUM: N/A
START DATE/TIME: 11/10/2012 10:48:00 AM
END DATE/TIME: 11/10/2012 11:18:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
							No samples taken.		
1045.0									
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

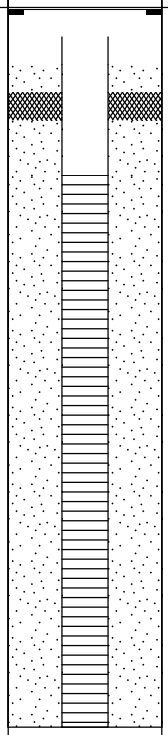
Golder Associates

BOREHOLE LOG: MW-33

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473370.18 E: 4685559.08
GROUND SURFACE ELEV.: 1050.77
DATUM: N/A
START DATE/TIME: 11/10/2012 11:22:00 AM
END DATE/TIME: 11/10/2012 12:08:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
							No samples taken.		
1045.0									
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

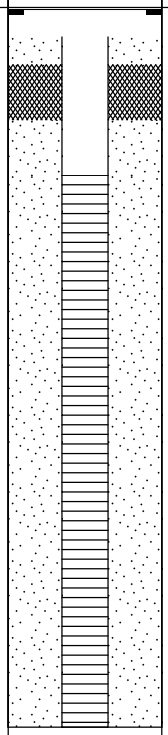
Golder Associates

BOREHOLE LOG: MW-34

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473462.12 E: 4685627.74
GROUND SURFACE ELEV.: 1050.84
DATUM: N/A
START DATE/TIME: 11/13/2012 9:33:00 AM
END DATE/TIME: 11/13/2012 10:00:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 0.5-1.0 ft-bgs: Sand. 1.0-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
							No samples taken.		
1045.0									
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

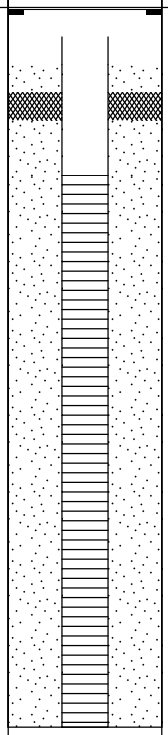
Golder Associates

BOREHOLE LOG: MW-35

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473323.61 E: 4685603.22
GROUND SURFACE ELEV.: 1050.76
DATUM: N/A
START DATE/TIME: 11/10/2012 12:05:00 PM
END DATE/TIME: 11/10/2012 1:45:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
							No samples taken.		
1045.0									
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

Golder Associates

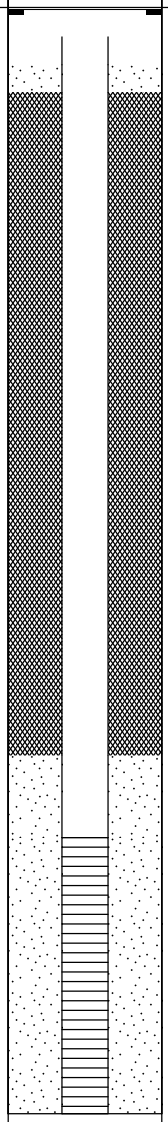
BOREHOLE LOG: MW-36D

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 20
DEPTH OF SOIL DRILL: 20
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473298.22 E: 4685631.45
GROUND SURFACE ELEV.: 1050.79
DATUM: N/A
START DATE/TIME: 11/10/2012 1:42:00 PM
END DATE/TIME: 11/10/2012 3:10:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-13.5 ft-bgs: Bentonite Seal
							No samples taken.		
1045.0									
1040.0									13.5-20.0 ft-bgs: Clean, fine to coarse sand filter. 15.0-20.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1035.0									
1030.0									



LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

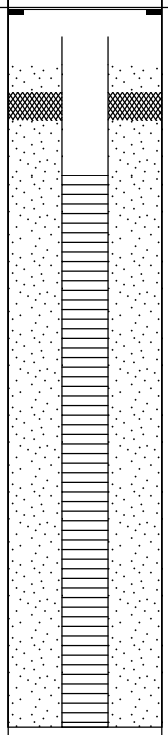
Golder Associates

BOREHOLE LOG: MW-36S

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473298.34 E: 4685634.17
GROUND SURFACE ELEV.: 1050.77
DATUM: N/A
START DATE/TIME: 11/10/2012 2:15:00 PM
END DATE/TIME: 11/10/2012 3:15:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
							No samples taken.		
1045.0									
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

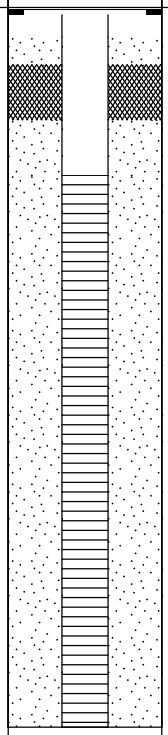
Golder Associates

BOREHOLE LOG: MW-37

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473321.97 E: 4685497.68
GROUND SURFACE ELEV.: 1050.33
DATUM: N/A
START DATE/TIME: 11/13/2012 12:30:00 PM
END DATE/TIME: 11/13/2012 1:03:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 0.5-1.0 ft-bgs: Sand. 1.0-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1045.0							No samples taken.		
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

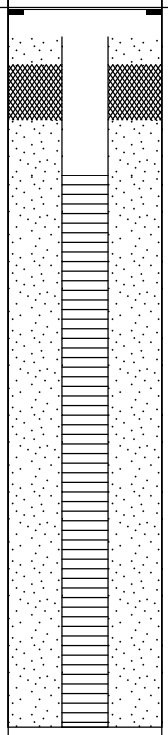
Golder Associates

BOREHOLE LOG: MW-38

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473260.07 E: 4685460.75
GROUND SURFACE ELEV.: 1050.01
DATUM: N/A
START DATE/TIME: 11/13/2012 10:56:00 AM
END DATE/TIME: 11/13/2012 11:45:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 0.5-1.0 ft-bgs: Sand. 1.0-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1045.0							No samples taken.		
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

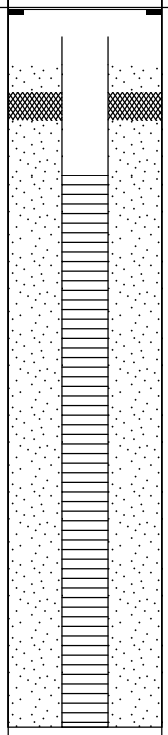
Golder Associates

BOREHOLE LOG: MW-39

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473224.81 E: 4685542.24
GROUND SURFACE ELEV.: 1049.82
DATUM: N/A
START DATE/TIME: 11/10/2012 4:30:00 PM
END DATE/TIME: 11/10/2012 6:05:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0							No samples taken.		Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

Golder Associates

BOREHOLE LOG: MW-40

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 20
DEPTH OF SOIL DRILL: 20
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473151.98 E: 4685516
GROUND SURFACE ELEV.: 1050.38
DATUM: N/A
START DATE/TIME: 11/13/2012 3:45:00 PM
END DATE/TIME: 11/14/2012 10:30:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-13.0 ft-bgs: Bentonite Seal
1045.0							No samples taken.		
1040.0									13.0-20.0 ft-bgs: Clean, fine to coarse sand filter.
1035.0									15.0-20.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1030.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

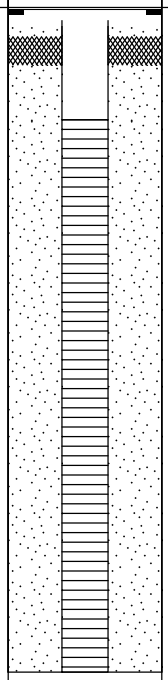
Golder Associates

BOREHOLE LOG: MW-41

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473242.68 E: 4685657.91
GROUND SURFACE ELEV.: 1047.09
DATUM: N/A
START DATE/TIME: 11/13/2012 10:12:00 AM
END DATE/TIME: 11/13/2012 10:45:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0							No samples taken.		Steel flush mount with locking cap. 0.3-0.5 ft-bgs: Sand. 0.5-1.0 ft-bgs: Bentonite Seal 1.0-12.0 ft-bgs: Clean, fine to coarse sand filter. 2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

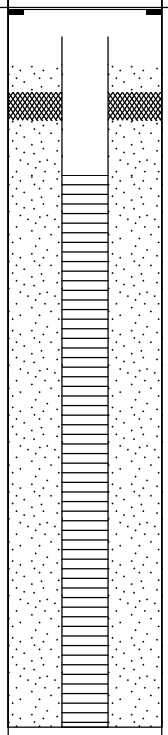
Golder Associates

BOREHOLE LOG: MW-42

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473212.97 E: 4685629.19
GROUND SURFACE ELEV.: 1049.47
DATUM: N/A
START DATE/TIME: 11/10/2012 10:05:00 AM
END DATE/TIME: 11/10/2012 10:35:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0							No samples taken.		Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

Golder Associates

BOREHOLE LOG: MW-43D

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 42
DEPTH OF SOIL DRILL: 42
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473176.37 E: 4685723.58
GROUND SURFACE ELEV.: 1048.93
DATUM: N/A
START DATE/TIME: 11/14/2012
END DATE/TIME: 11/16/2012

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: Sonic

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Concrete Soft, brown, fine Gravelly Silty CLAY. Firm, brown, clayey SILT with trace fine to medium Gravel.		1	S	0	5 / 5	0.0-0.5 ft.: Concrete 0.5-1.1 ft.: Soft, brown, fine Gravelly Silty CLAY. 1.1-5.0 ft.: Firm, brown, clayey SILT with trace fine to medium Gravel.		8-inch steel flush mount casing. 0.5-1.0 ft.: Cement 0.0-32.0 ft-bgs: Cement grout, 10-inch diameter borehole to 32 ft. Installed 6-inch diameter steel casing in a 10-inch diameter borehole - grouted to surface and let set for >24 hours. Abvanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 42 ft-bgs.
1045.0									
	Firm to stiff, brown, Silty CLAY with trace fine to medium gravel, mottled.		2	S	0	10 / 10	5.0-14.3 ft.: Firm to stiff, brown, Silty CLAY with trace fine to medium gravel, mottled. 14.3-15.0 ft.: Stiff to hard, gray, Silty CLAY with trace fine to medium Gravel, mottled, massive.		
1040.0									
1035.0									
	Stiff to hard, gray, Silty CLAY with trace fine to medium Gravel, mottled, massive.		3	S	0	10 / 10	15.0-25.0 ft.: Stiff to hard, gray, Silty CLAY with trace fine to medium Gravel, mottled, massive.		
1030.0									
1025.0									

LITHOLOGY LEGEND

Concrete
USCS Silty Sand (SM)
USCS Low Plasticity Clay (CL)
USCS Clayey Sand (SC)
USCS Silt (ML)

DRILLING COMPANY: Boart-Longyear
DRILLER: B. Beunings

GOLDER INSPECTOR: CWA

LOGGED BY: MRH
LOGGED BY DATE: 1/25/2013
CHECKED BY: NSC
CHECKED BY DATE: 1/25/2013

Golder Associates

BOREHOLE LOG: MW-43D

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 42
DEPTH OF SOIL DRILL: 42
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473176.37 E: 4685723.58
GROUND SURFACE ELEV.: 1048.93
DATUM: N/A
START DATE/TIME: 11/14/2012
END DATE/TIME: 11/16/2012

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: Sonic

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Stiff to hard, gray, Silty CLAY with trace fine to medium Gravel, mottled, massive.		4	S	0	5 / 5	25.0-29.0 ft.: Stiff to hard, gray, Silty CLAY with trace fine to medium Gravel, mottled, massive. 29.0-30.0 ft.: Loose, yellow, clayey fine to coarse SAND with trace fine to medium Gravel, moist. Grab sample collected at 29.5 ft.		0.0-32.0 ft-bgs: Cement grout, 10-inch diameter borehole to 32 ft. Installed 6-inch diameter steel casing in a 10-inch diameter borehole - grouted to surface and let set for >24 hours. Advanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 42 ft-bgs.
1020.0	Loose, yellow, clayey fine to coarse SAND with trace fine to medium Gravel, moist, iron oxide staining at 32 ft.		5	S	0 2.2	12 / 12	30.0-34.2 ft.: Loose, yellow, clayey fine to coarse SAND with trace fine to medium Gravel, moist, iron oxide staining at 32 ft. 34.2-37.4 ft.: Compact, yellow-brown, Clayey fine to medium Gravelly fine to medium SAND, moist. 37.4-39.3 ft.: Compact, yellow-brown, Clayey fine to coarse Gravelly fine to medium SAND, dry, mottled. 39.3-39.8 ft.: Soft, tan, fine to coarse gravelly SAND, some Clay, moist. 39.8-40.3 ft.: Soft, tan, fine Sandy SILT, some Clay, moist. 40.3-41.2 ft.: Loose, brown-tan, fine SAND, some Clay, moist. 41.2-42.0 ft.: Compact, brown, fine SAND with some Clay, trace fine Gravel, mottled, dry. Grab sample collected at 41.5 ft.		32.0-34.0 ft-bgs: Bentonite Seal 34.0-42.0 ft-bgs: Sand filter pack. 36.0-41.0 ft-bgs.: 2-inch PVC screen.
1015.0									
1010.0	Soft, tan, fine Sandy SILT, some Clay, moist. Loose, brown-tan, fine SAND, some Clay, moist. Compact, brown, fine SAND with some Clay, trace fine Gravel, mottled, dry.								
1005.0									
1000.0									

LITHOLOGY LEGEND

Concrete
USCS Silty Sand (SM)
USCS Low Plasticity Clay (CL)
USCS Clayey Sand (SC)
USCS Silt (ML)

DRILLING COMPANY: Boart-Longyear
DRILLER: B. Beunings

GOLDER INSPECTOR: CWA

LOGGED BY: MRH
LOGGED BY DATE: 1/25/2013
CHECKED BY: NSC
CHECKED BY DATE: 1/25/2013

Golder Associates

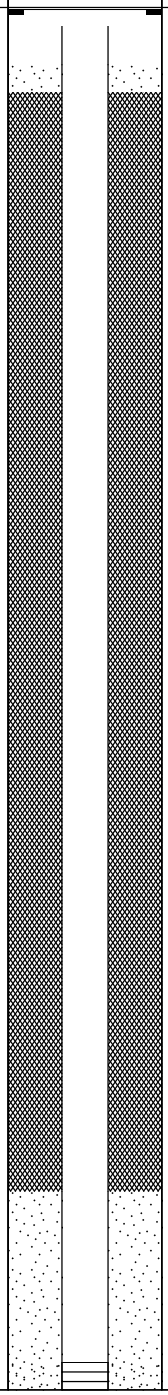
BOREHOLE LOG: MW-43I

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 30
DEPTH OF SOIL DRILL: 30
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473181.87 E: 4685723.4
GROUND SURFACE ELEV.: 1049.04
DATUM: N/A
START DATE/TIME: 11/9/2012 4:42:00 PM
END DATE/TIME: 11/10/2012 8:50:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
									Steel flush mount with locking cap.
									1-1.5 ft-bgs: Sand.
									1.5-21.4 ft-bgs: Bentonite Seal
1045.0							No samples taken.		
1040.0									
1035.0									
1030.0									
									21.4-29.5 ft-bgs: Clean, fine to coarse sand filter.
1025.0									



LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

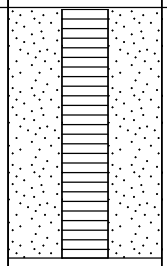
Golder Associates

BOREHOLE LOG: MW-43I

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 30
DEPTH OF SOIL DRILL: 30
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473181.87 E: 4685723.4
GROUND SURFACE ELEV.: 1049.04
DATUM: N/A
START DATE/TIME: 11/9/2012 4:42:00 PM
END DATE/TIME: 11/10/2012 8:50:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1020.0									21.4-29.5 ft-bgs: Clean, fine to coarse sand filter. 24.5-29.5 ft-bgs: 1.5-inch pre-packed PVC well screen.
1015.0									
1010.0									
1005.0									
1000.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

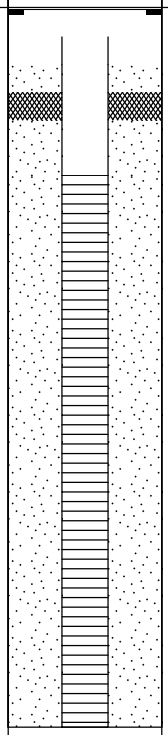
Golder Associates

BOREHOLE LOG: MW-43S

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473184.15 E: 4685723.36
GROUND SURFACE ELEV.: 1049.13
DATUM: N/A
START DATE/TIME: 11/10/2012 7:48:00 AM
END DATE/TIME: 11/10/2012 7:55:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0							No samples taken.		Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

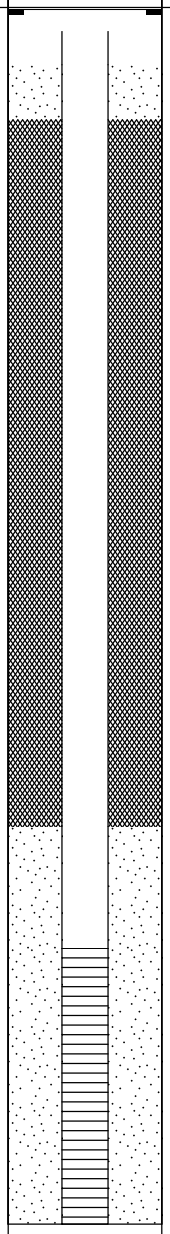
Golder Associates

BOREHOLE LOG: MW-44

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 22
DEPTH OF SOIL DRILL: 22
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473164.35 E: 4685836.07
GROUND SURFACE ELEV.: 1048.38
DATUM: N/A
START DATE/TIME: 11/10/2012 8:58:00 AM
END DATE/TIME: 11/10/2012 9:50:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
									Steel flush mount with locking cap. 1-2.0 ft-bgs: Sand. 2.0-14.8 ft-bgs: Bentonite Seal
1045.0							No samples taken.		
1040.0									
1035.0									14.8-22.0 ft-bgs: Clean, fine to coarse sand filter.
1030.0									17.0-22.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

Golder Associates

BOREHOLE LOG: MW-45

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 29.5
DEPTH OF SOIL DRILL: 29.5
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473286.98 E: 4685718.68
GROUND SURFACE ELEV.: 1050.68
DATUM: N/A
START DATE/TIME: 11/13/2012
END DATE/TIME: 11/13/2012

DRILLING METHOD: Roto Sonic
CORING METHOD: N/A
DRILL RIG: Sonic

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	GRAVEL (Fill).								8-inch steel flush mount casing.
	Firm, brown, Sandy, Clayey SILT, moist.		1	S	1 0	5 / 5	0.0-1.0 ft.: GRAVEL (Fill). 1.0-5.0 ft.: Firm, brown, Sandy, Clayey SILT, moist.		0.0-19.5 ft-bgs: Cement grout, 10-inch diameter borehole to 20 ft. Installed 6-inch diameter steel casing in a 10-inch diameter borehole - grouted to surface and let set for >24 hours. Abvanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 29.5 ft-bgs.
1045.0	Firm, brown, fine to coarse Sandy CLAY with trace fine to coarse Gravel, moist.		2	S	30.9 53.8	5 / 5	5.0-10.0 ft.: Firm, brown, fine to coarse Sandy CLAY with trace fine to coarse Gravel, moist.		
1040.0			3	S	349.2 2968	5 / 5	10.0-14.9 ft.: Firm, brown, fine to coarse Sandy CLAY with trace fine to coarse Gravel, moist. 14.9-15.0 ft.: Stiff to hard, Gray, Silty CLAY with trace fine to medium Gravel, moist.		
1035.0	Stiff to hard, Gray, Silty CLAY with trace fine to medium Gravel, moist.		4	S	327 232	5 / 5	15.0-20.0 ft.: Stiff to hard, Gray, Silty CLAY with trace fine to medium Gravel, moist.		19.5-21.5 ft-bgs: Bentonite Seal, 6-inch diameter borehole to 29.5 ft.
1030.0			5	S	1.9	9.5 / 9.5	20.0-29.5 ft.: Stiff to hard, Gray, Silty CLAY with trace fine to medium Gravel, moist.		21.5-29.5 ft-bgs: Sand filter pack. 23.5-28.5 ft-bgs.: 2-inch PVC screen with sand pack.

LITHOLOGY LEGEND

USCS Well-graded Gravel (GW)

USCS Low Plasticity Clay (CL)

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Boart-Longyear
DRILLER: B. Beunings

GOLDER INSPECTOR: CWA

LOGGED BY: MRH
LOGGED BY DATE: 1/25/2013
CHECKED BY: NSC
CHECKED BY DATE: 1/25/2013

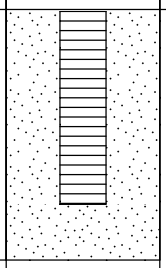
Golder Associates

BOREHOLE LOG: MW-45

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 29.5
DEPTH OF SOIL DRILL: 29.5
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473286.98 E: 4685718.68
GROUND SURFACE ELEV.: 1050.68
DATUM: N/A
START DATE/TIME: 11/13/2012
END DATE/TIME: 11/13/2012

DRILLING METHOD: Roto Sonic
CORING METHOD: N/A
DRILL RIG: Sonic

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Stiff to hard, Gray, Silty CLAY with trace fine to medium Gravel, moist.		5	S	1.9	9.5 / 9.5	20.0-29.5 ft.: Stiff to hard, Gray, Silty CLAY with trace fine to medium Gravel, moist.		23.5-28.5 ft-bgs.: 2-inch PVC screen with sand pack.
1020.0									
1015.0									
1010.0									
1005.0									

LITHOLOGY LEGEND

USCS Well-graded Gravel (GW)

USCS Low Plasticity Clay (CL)

USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Boart-Longyear
DRILLER: B. Beunings

GOLDER INSPECTOR: CWA

LOGGED BY: MRH
LOGGED BY DATE: 1/25/2013
CHECKED BY: NSC
CHECKED BY DATE: 1/25/2013

Golder Associates

BOREHOLE LOG: MW-46

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 42
DEPTH OF SOIL DRILL: 42
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473280.8 E: 4685718.58
GROUND SURFACE ELEV.: 1050.68
DATUM: N/A
START DATE/TIME: 11/13/2012
END DATE/TIME: 11/13/2012

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: Sonic

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	0.0-0.5 ft.: GRAVEL Soft, brown, sandy Clayey SILT, moist, mottling at base. 6.5-14.2 ft.: Firm, red-brown, Silty fine Sandy CLAY with trace fine to coasre Gravel, iron oxide staining. 14.2-15.0 ft.: Stiff, gray, fine to medium Sandy CLAY with trace fine to coarse Gravel, moist, massive.		1	S	0 0.7	5 / 5	0.0-0.5 ft.: GRAVEL 0.5-5.0 ft.: Soft, brown, sandy Clayey SILT, moist, mottling at base.		8-inch steel flush mount casing. 0.0-32.0 ft-bgs: Cement grout. Advanced 12-inch diameter temporary steel casing to approximately 22 ft-bgs, then drilled a 10-inch diameter borehole through the 12-inch diameter casing to an approximate depth of 32 ft-bgs. Set a 6-inch diameter steel casing and grouted to surface, let the grout cure for >24 hours, then advanced a 4-inch diameter borehole through the 6-inch diameter steel casing to set the PVC well.
1045.0	Stiff, gray, fine to medium Sandy CLAY with trace fine to coarse Gravel, moist, massive.		2	S	6.8 672	10 / 10	5.0-6.5 ft.: Soft, brown, Sandy Clayey SILT, moist, mottling at base. 6.5-14.2 ft.: Firm, red-brown, Silty fine Sandy CLAY with trace fine to coarse Gravel, iron oxide staining. 14.2-15.0 ft.: Stiff, gray, fine to medium Sandy CLAY with trace fine to coarse Gravel, moist, massive.		
1040.0			3	S	3.1 2.6	10 / 10	15.0-25.0 ft.: Stiff, gray, fine to medium Sandy CLAY with trace fine to coarse Gravel, moist, massive.		
1035.0									
1030.0									

LITHOLOGY LEGEND

USCS Well-graded Gravel (GW)
USCS Silty Sand (SM)
USCS Low Plasticity Clay (CL)
USCS Poorly-graded Sand (SP)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Boart Longyear
DRILLER: B. Beunings

GOLDER INSPECTOR: CWA

LOGGED BY: MRH
LOGGED BY DATE: 1/25/2013
CHECKED BY: NSC
CHECKED BY DATE: 1/25/2013

Golder Associates

BOREHOLE LOG: MW-46

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 42
DEPTH OF SOIL DRILL: 42
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473280.8 E: 4685718.58
GROUND SURFACE ELEV.: 1050.68
DATUM: N/A
START DATE/TIME: 11/13/2012
END DATE/TIME: 11/13/2012

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: Sonic

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Stiff, gray, fine to medium Sandy CLAY with trace fine to coarse Gravel, moist, massive.		4	S	1.2 0	6.5 / 6.5	25.0-30.8 ft.: Stiff, gray, fine to medium Sandy CLAY with trace fine to coarse Gravel, moist, massive. 30.8-31.5 ft.: Compact, yellow-brown Clayey, Silty, fine to medium SAND, trace fine gravel, mottled, moist. Grab sample collected at 31.5 ft.		
1020.0	Compact, yellow-brown Clayey, Silty, fine to medium SAND, trace fine gravel, mottled, moist.		5	S	2.7 27.5	10.5 / 10.5	31.5-38.9 ft.: Compact, yellow-brown Clayey, Silty, fine to medium SAND, trace fine gravel, mottled, moist. 38.9-39.3 ft.: Firm, brown, Clayey SILT. 39.3-39.8 ft.: Firm, yellow-brown, fine to coarse Sandy CLAY with trace gravel, dry. 39.8-42.0 ft.: Compact, brown, fine to medium SAND, moist. Grab sample collected at 41.5 ft.		32.0-34.0 ft-bgs: Bentonite Seal, 6 inch diameter borehole to 42 ft. 34-42.0 ft-bgs: Sand filter pack. 36.0-41.0 ft-bgs.: 2-inch PVC screen with sand pack.
1015.0	Firm, brown, Clayey SILT.								
	Firm, yellow-brown, fine to coarse Sandy CLAY with trace gravel, dry.								
1010.0	Compact, brown, fine to medium SAND, moist.								
1005.0									

LITHOLOGY LEGEND

USCS Well-graded Gravel (GW)
USCS Silty Sand (SM)
USCS Low Plasticity Clay (CL)
USCS Poorly-graded Sand (SP)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Boart Longyear
DRILLER: B. Beunings

GOLDER INSPECTOR: CWA

LOGGED BY: MRH
LOGGED BY DATE: 1/25/2013
CHECKED BY: NSC
CHECKED BY DATE: 1/25/2013

Golder Associates

BOREHOLE LOG: MW-47D

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 43
DEPTH OF SOIL DRILL: 43
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473365.95 E: 4685731.2
GROUND SURFACE ELEV.: 1050.78
DATUM: N/A
START DATE/TIME: 11/12/2012
END DATE/TIME: 11/14/2012

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: Sonic

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete at ground surface Fine to coarse SAND. Brown SILTY CLAY with Gravel. Blocky structure.		1	S	0.5	5 / 5	0.0-0.4 ft: Concrete. 0.4-1.0 ft.: Loose, fine to coarse SAND. 1.0-2.5 ft.: Firm, brown Silty CLAY with trace Gravel. Blocky structure. 2.5-5.0 ft.: Firm, brown Silty CLAY with trace fine Gravel, mottled, platy structure, moist.		8-inch steel flush mount casing. 0.0-33.0 ft-bgs: Cement grout. Advanced 12-inch diameter temporary steel casing to approximately 22 ft-bgs, then drilled a 10-inch diameter borehole through the 12-inch diameter casing to an approximate depth of 33 ft-bgs. Set a 6-inch diameter steel casing and grouted to surface, let the grout cure for >24 hours, then advanced a 4-inch diameter borehole through the 6-inch diameter steel casing to set the PVC well.
1045.0	Brown SILTY CLAY with Gravel, mottled, massive, moist.		2	S	25 234	10 / 10	5.0-10.0 ft.: Firm, brown Silty CLAY with trace fine to medium Gravel, mottled, massive, moist. 10.0-15.0 ft.: Firm, brown Silty CLAY, with trace fine to medium Gravel, mottled, massive, strong odor, moist.		
1040.0									
1035.0	Gray SILTY CLAY with Gravel, mottled, massive, moist.		3	S	78 28	10 / 10	15.0-20.0 ft.: Stiff, gray, Silty CLAY with trace fine to medium Gravel, mottled, massive, moist. 20.0-25.0 ft.: Stiff, gray, Silty CLAY, with trace fine to medium Gravel, mottled, massive, moist.		
1030.0									

LITHOLOGY LEGEND

Concrete
USCS Silty Sand (SM)
Fill (made ground)
USCS Poorly-graded Gravel (GP)
USCS Low Plasticity Clay (CL)

DRILLING COMPANY: Boart-Longyear
DRILLER: B. Beunings

GOLDER INSPECTOR: CWA

LOGGED BY: MRH
LOGGED BY DATE: 1/25/2013
CHECKED BY: NSC
CHECKED BY DATE: 1/25/2013

Golder Associates

BOREHOLE LOG: MW-47D

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 43
DEPTH OF SOIL DRILL: 43
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473365.95 E: 4685731.2
GROUND SURFACE ELEV.: 1050.78
DATUM: N/A
START DATE/TIME: 11/12/2012
END DATE/TIME: 11/14/2012

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: Sonic

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Gray SILTY CLAY with Gravel, mottled, massive, moist.		4	S	29 345	8 / 8	25.0-31.0 ft.: Stiff, gray, Silty CLAY with trace fine to medium gravel, massive, moist. 31.0-33.0 ft.: Compact, yellow-brown, Silty CLAY with trace fine to medium Sand, trace fine to coarse Gravel, mottled, strong odor, moist.		
1020.0	Yellow-brown, Silty CLAY with fine to medium Sand, trace fine to coarse Gravel, mottled, strong odor, moist.								33.0-35.0 ft-bgs: Bentonite Seal. 6-inch diameter borehole to 43 ft.
	Gray Silty fine to medium SAND, trace gravel wet.		5	S	489 33.8	10 / 10	33.0-34.2 ft.: Loose, yellow-brown, Silty CLAY with trace fine to medium Sand, trace fine to coarse Gravel, mottled, strong odor, moist. 34.2-34.7 ft.: Loose, gray Silty fine to medium SAND, wet. 34.7-37.6 ft.: Loose, brown, Silty fine to medium SAND with trace fine Gravel, wet. 37.6-39.1 ft.: Loose, yellow-brown, Clayey fine to coarse SAND with trace fine Gravel, wet. 39.1-41.8 ft.: Loose, yellow-brown, fine to coarse Sandy Coarse GRAVEL, wet. 41.8-43.0 ft.: Very Loose, yellow-brown, fine to coarse Sandy coarse GRAVEL, wet.		35-43.0 ft-bgs: Sand filter pack. 37.0-42.0 ft-bgs.: 2-inch PVC screen with sand pack.
1015.0									
1010.0	Yellow-brown, fine to coarse Sandy coarse GRAVEL, wet.								
1005.0									

LITHOLOGY LEGEND

Concrete
USCS Silty Sand (SM)
Fill (made ground)
USCS Poorly-graded Gravel (GP)
USCS Low Plasticity Clay (CL)

DRILLING COMPANY: Boart-Longyear
DRILLER: B. Beunings

GOLDER INSPECTOR: CWA

LOGGED BY: MRH
LOGGED BY DATE: 1/25/2013
CHECKED BY: NSC
CHECKED BY DATE: 1/25/2013

Golder Associates

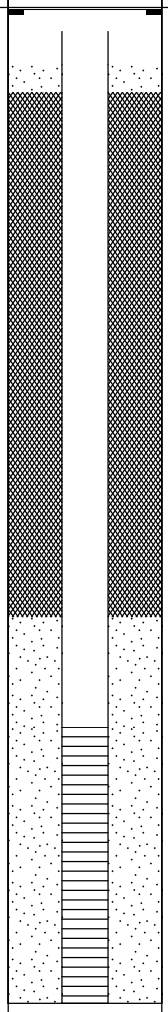
BOREHOLE LOG: MW-47S

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 18
DEPTH OF SOIL DRILL: 18
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473378.14 E: 4685731.5
GROUND SURFACE ELEV.: 1050.83
DATUM: N/A
START DATE/TIME: 11/10/2012 3:45:00 PM
END DATE/TIME: 11/10/2012 4:35:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-11.0 ft-bgs: Bentonite Seal
							No samples taken.		
1045.0									
1040.0									11.0-18.0 ft-bgs: Clean, fine to coarse sand filter. 13.0-18.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1035.0									
1030.0									



LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

Golder Associates

BOREHOLE LOG: MW-48

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 20
DEPTH OF SOIL DRILL: 20
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473387.28 E: 4685793.87
GROUND SURFACE ELEV.: 1050.26
DATUM: N/A
START DATE/TIME: 11/12/2012 10:08:00 AM
END DATE/TIME: 11/12/2012 11:20:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-13.0 ft-bgs: Bentonite Seal
1045.0							No samples taken.		
1040.0									13.0-20.0 ft-bgs: Clean, fine to coarse sand filter.
1035.0									15.0-20.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1030.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

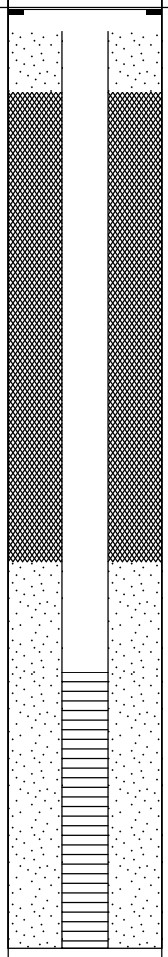
Golder Associates

BOREHOLE LOG: MW-49

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 17
DEPTH OF SOIL DRILL: 17
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473181.47 E: 4685490.06
GROUND SURFACE ELEV.: 1049.51
DATUM: N/A
START DATE/TIME: 11/12/2012 11:15:00 AM
END DATE/TIME: 11/12/2012 12:10:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
									Steel flush mount with locking cap. 0.4-1.5 ft-bgs: Sand. 1.5-10.0 ft-bgs: Bentonite Seal
1045.0							No samples taken.		
1040.0									10.0-17.0 ft-bgs: Clean, fine to coarse sand filter. 12.0-17.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

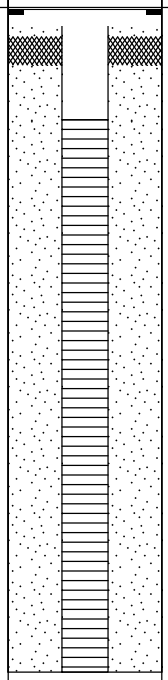
Golder Associates

BOREHOLE LOG: MW-50

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473292.49 E: 4685890.28
GROUND SURFACE ELEV.: 1048.97
DATUM: N/A
START DATE/TIME: 11/13/2012 1:25:00 PM
END DATE/TIME: 11/13/2012 2:00:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0							No samples taken.		Steel flush mount with locking cap. 0.3-0.5 ft-bgs: Sand. 0.5-1.0 ft-bgs: Bentonite Seal 1.0-12.0 ft-bgs: Clean, fine to coarse sand filter. 2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

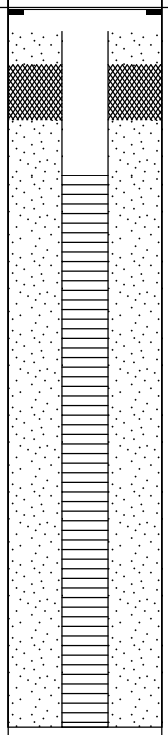
Golder Associates

BOREHOLE LOG: MW-51

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473267.08 E: 4685937.93
GROUND SURFACE ELEV.: 1047.89
DATUM: N/A
START DATE/TIME: 11/12/2012 1:20:00 PM
END DATE/TIME: 11/12/2012 3:50:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0							No samples taken.		Raised steel protective casing. 0.4-1.0 ft-bgs: Sand. 1.0-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

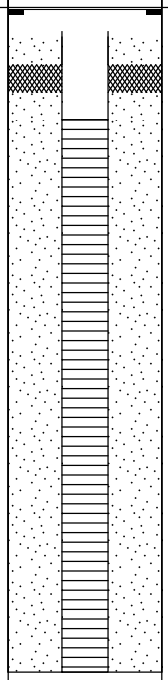
Golder Associates

BOREHOLE LOG: MW-52

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473266.72 E: 4685892.37
GROUND SURFACE ELEV.: 1048.77
DATUM: N/A
START DATE/TIME: 11/12/2012 4:00:00 PM
END DATE/TIME: 11/12/2012 5:15:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0							No samples taken.		Steel flush mount with locking cap. 0.5-1.0 ft-bgs: Sand. 1.0-1.5 ft-bgs: Bentonite Seal 1.5-12.0 ft-bgs: Clean, fine to coarse sand filter. 2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

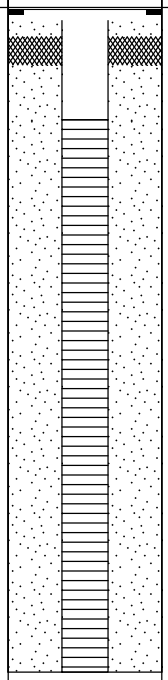
Golder Associates

BOREHOLE LOG: MW-53

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 12
DEPTH OF SOIL DRILL: 12
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473214.02 E: 4685894.38
GROUND SURFACE ELEV.: 1049.37
DATUM: N/A
START DATE/TIME: 11/13/2012 2:40:00 PM
END DATE/TIME: 11/13/2012 3:30:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0							No samples taken.		Steel flush mount with locking cap. 0.2-0.5 ft-bgs: Sand. 0.5-1.0 ft-bgs: Bentonite Seal 1.0-12.0 ft-bgs: Clean, fine to coarse sand filter. 2.0-12.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

Golder Associates

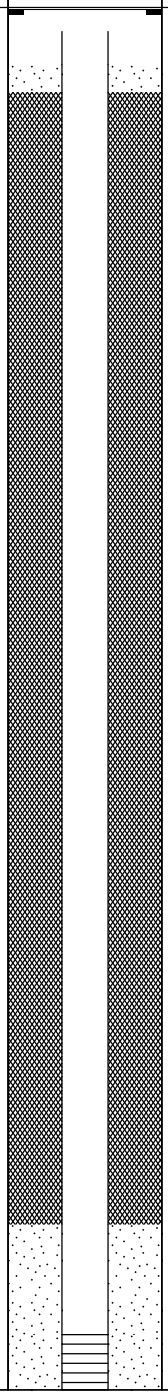
BOREHOLE LOG: MW-54 (MIP-68)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 29
DEPTH OF SOIL DRILL: 29
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473488.99 E: 4685626.45
GROUND SURFACE ELEV.: 1050.81
DATUM: N/A
START DATE/TIME: 11/16/2012 10:50:00 AM
END DATE/TIME: 11/16/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-22.0 ft-bgs: Bentonite Seal
							No samples taken.		
1045.0									
1040.0									
1035.0									
1030.0									22.0-29.0 ft-bgs: Clean, fine to coarse sand filter. 24.0-29.0 ft-bgs: 1.5-inch pre-packed PVC well screen.



LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

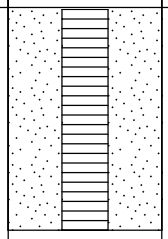
Golder Associates

BOREHOLE LOG: MW-54 (MIP-68)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 29
DEPTH OF SOIL DRILL: 29
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473488.99 E: 4685626.45
GROUND SURFACE ELEV.: 1050.81
DATUM: N/A
START DATE/TIME: 11/16/2012 10:50:00 AM
END DATE/TIME: 11/16/2012

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0									24.0-29.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1020.0									
1015.0									
1010.0									
1005.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

Golder Associates

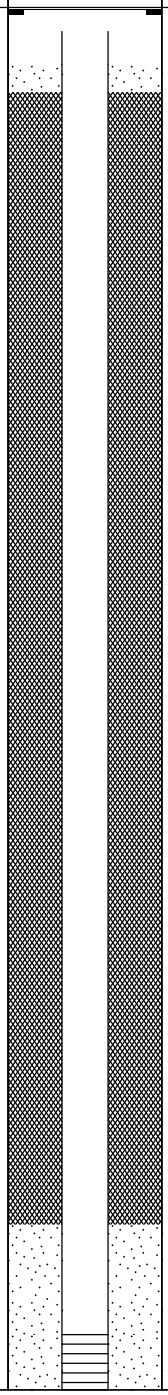
BOREHOLE LOG: MW-55D (MIP-70)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 29
DEPTH OF SOIL DRILL: 29
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473518.94 E: 4685622.68
GROUND SURFACE ELEV.: 1050.59
DATUM: N/A
START DATE/TIME: 11/13/2012 8:27:00 AM
END DATE/TIME: 11/13/2012 9:45:00 AM

DRILLING METHOD: Direct Push
CORING METHOD:
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 1-1.5 ft-bgs: Sand. 1.5-22.0 ft-bgs: Bentonite Seal
							No samples taken.		
1045.0									
1040.0									
1035.0									
1030.0									22.0-29.0 ft-bgs: Clean, fine to coarse sand filter. 24.0-29.0 ft-bgs: 1.5-inch pre-packed PVC well screen.



LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

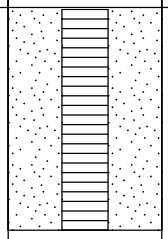
Golder Associates

BOREHOLE LOG: MW-55D (MIP-70)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 29
DEPTH OF SOIL DRILL: 29
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473518.94 E: 4685622.68
GROUND SURFACE ELEV.: 1050.59
DATUM: N/A
START DATE/TIME: 11/13/2012 8:27:00 AM
END DATE/TIME: 11/13/2012 9:45:00 AM

DRILLING METHOD: Direct Push
CORING METHOD:
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0									24.0-29.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
1020.0									
1015.0									
1010.0									
1005.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

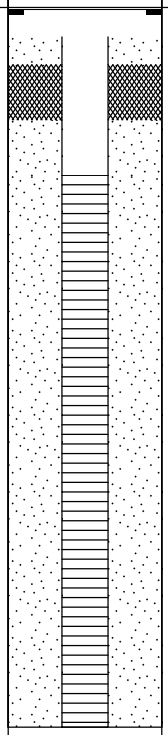
Golder Associates

BOREHOLE LOG: MW-55S (MIP-70)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 13
DEPTH OF SOIL DRILL: 13
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473519.08 E: 4685625.36
GROUND SURFACE ELEV.: 1050.87
DATUM: N/A
START DATE/TIME: 11/13/2012 8:05:00 AM
END DATE/TIME: 11/13/2012 9:40:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Steel flush mount with locking cap. 0.5-1.0 ft-bgs: Sand. 1.0-2.0 ft-bgs: Bentonite Seal 2.0-13.0 ft-bgs: Clean, fine to coarse sand filter. 3.0-13.0 ft-bgs: 1.5-inch pre-packed PVC well screen.
							No samples taken.		
1045.0									
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: JSP

LOGGED BY: MRH
LOGGED BY DATE: 11/30/2012
CHECKED BY: NSC
CHECKED BY DATE: 1/28/2013

Golder Associates

BOREHOLE LOG: MW-56D

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 39
DEPTH OF SOIL DRILL: 39
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473198.6 E: 4685938.54
GROUND SURFACE ELEV.: 1047.76
DATUM: N/A
START DATE/TIME: 2/27/2013 12:20:00 PM
END DATE/TIME: 2/27/2013 1:40:00 PM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0	Stiff, red-brown to brown, SILT and CLAY, some sand, none to some gravel, dry to moist.		1	S	0.4 0.2	5 / 5	0.0-2.0 ft-bgs: Soft, dark gray, SILT, some sand,moist (CL). 2.0-5.0 ft-bgs: Stiff, brown to gray, SILT and CLAY, some sand, trace gravel, moist (CL).		6-inch steel surface casing to 2.6 ft above ground. Bollards placed around well for protection. 0.0-29.0 ft-bgs: Cement grout. Installed 6-inch diameter steel casing in a 10-inch diameter borehole to 29.0 ft-bgs - grouted to surface and let set for >24 hours. Advanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 38 ft-bgs.
1040.0			2	S	0.2 0.2	5 / 5	5.0-10.0 ft-bgs: Stiff, red to brown, SILT and CLAY, some sand, trace gravel, dry (CL).		
1035.0	Loose to dense, gray, SILT, some sand, trace to some gravel, moist to wet.		3	S	0.2 0.1	5 / 5	10.0-13.0 ft-bgs: Stiff, brown, SILT and CLAY, some sand, trace gravel, moist (CL). 13.0-15.0 ft-bgs: Dense, gray, SILT, some sand, wet (ML).		
1030.0			4	S	0.1 0.1	5 / 5	15.0-20.0 ft-bgs: Dense, gray, SILT, some sand, some gravel, moist (ML).		
1025.0	Stiff, gray, SILT and CLAY, some sand, none to trace gravel.		5	S	0.0 0.1	5 / 5	20.0-25.0 ft-bgs: Stiff, gray, SILT and CLAY, some gravel, some sand, dry (CL).		

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL) | USCS Silt (ML) | USCS Silty Sand (SM)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-56D

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 39
DEPTH OF SOIL DRILL: 39
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473198.6 E: 4685938.54
GROUND SURFACE ELEV.: 1047.76
DATUM: N/A
START DATE/TIME: 2/27/2013 12:20:00 PM
END DATE/TIME: 2/27/2013 1:40:00 PM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1020.0	Stiff, gray, SILT and CLAY, some sand, none to trace gravel.		6	S	0.0	4 / 4	25.0-29.0 ft-bgs: Stiff, gray, SILT and CLAY, some sand, trace gravel, moist (CL).		
1015.0	Dense, SILT, SAND and GRAVEL, wet.		7	S	0.9	6 / 6	29.0-31.0 ft-bgs: Stiff, gray, SILT and CLAY, some sand, trace gravel, moist (CL). 31.0-33.0 ft-bgs: Stiff, yellow-brown, SILT and CLAY, some sand, trace gravel, moist (CL). 33.0-34.0 ft-bgs: Loose, brown, SILT, wet (ML). 34.0-35.0 ft-bgs: Very dense, brown, SILT and GRAVEL, moist (ML).		29.0-31.0 ft-bgs: Granular bentonite 31.0-39.0 ft-bgs: #2 sand filter pack 33.0-38.0 ft-bgs: 2-inch PVC well screen (0.010-inch slotted).
1010.0	Stiff, gray, SILT and CLAY, some sand, none to trace gravel.		8	S	0.5	4 / 4	35.0-37.0 ft-bgs: Loose, yellow-brown, silty SAND, some gravel, wet (SM). 37.0-39.0 ft-bgs: Stiff, yellow-brown, SILT and CLAY, trace clay, moist, friable (CL).		
1005.0									
1000.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL) | USCS Silt (ML) | USCS Silty Sand (SM)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

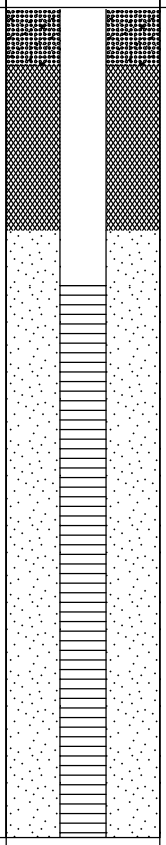
Golder Associates

BOREHOLE LOG: MW-56S

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 15
DEPTH OF SOIL DRILL: 20
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473203.94 E: 4685937.19
GROUND SURFACE ELEV.: 1047.82
DATUM: N/A
START DATE/TIME: 2/27/2013 1:40:00 PM
END DATE/TIME: 2/27/2013 2:30:00 PM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0							No samples collected. Refer to MW-56D for soil stratigraphy.		Steel casing to 2.6 ft above ground. Bollards placed around well for protection. 4-inch diameter boring 0.0-1.0 ft-bgs: Cement 1.0-4.0 ft-bgs: Granular bentonite 4.0-15.0 ft-bgs: #2 Sand filter 5.0-15.0 ft-bgs: 2-inch PVC well screen (0.010-inch slotted)
1040.0									
1035.0									
1030.0									
1025.0									

LITHOLOGY LEGEND

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-57

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 38
DEPTH OF SOIL DRILL: 38
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473169.91 E: 4685827.39
GROUND SURFACE ELEV.: 1048.59
DATUM: N/A
START DATE/TIME: 2/27/2013 10:00:00 AM
END DATE/TIME: 3/1/2013 9:45:00 AM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Stiff, gray with red-brown streaks, SILT and CLAY, some sand, trace gravel, dry to moist		1	S	0.3 5.2	5 / 5	0.0-5.0 ft-bgs: Stiff, brown with red-gray streaks, SILT and CLAY, some sand trace gravel, dry, friable (CL).		10-inch road box at surface Installed 6-inch diameter steel casing in a 10-inch diameter borehole to 29.0 ft-bgs - grouted to surface and let set for >24 hours. Advanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 37 ft-bgs. 0.0-29.0 ft-bgs: Cement grout
1045.0									
			2	S	0.7 7.5	5 / 5	5.0-10.0 ft-bgs: Stiff, brown to gray, SILT and CLAY, some sand, trace gravel, wet, friable (CL).		
1040.0									
			3	S	3.9 3.9	5 / 5	10.0-15.0 ft-bgs: Stiff, gray with red-brown streaks, SILT and CLAY, some sand, trace gravel, dry, friable (CL).		
1035.0									
	Stiff, gray, SILT and CLAY, some sand, trace gravel, moist		4	S	0.4 0.3	5 / 5	15.0-20.0 ft-bgs: Stiff, gray, SILT and CLAY, some sand, trace gravel, fry, friable (CL).		
1030.0									
			5	S	2.4 .3	5 / 5	20.0-25.0 ft-bgs: Stiff, gray, SILT and CLAY, some sand, trace gravel, moist, friable (CL).		
1025.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-57

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 38
DEPTH OF SOIL DRILL: 38
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473169.91 E: 4685827.39
GROUND SURFACE ELEV.: 1048.59
DATUM: N/A
START DATE/TIME: 2/27/2013 10:00:00 AM
END DATE/TIME: 3/1/2013 9:45:00 AM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1020.0	Stiff, gray, SILT and CLAY, some sand, trace gravel, moist		5	S	0.2	4 / 4	25.0-29.0 ft-bgs: Stiff, gray, SILT and CLAY, some sand, trace gravel, moist, friable (CL).		0.0-29.0 ft-bgs: Cement grout
1015.0	Stiff, yellow-brown SILT and CLAY, some gravel, some sand, moist		6	S	1.6 6.8	6 / 6	29.0-31.0 ft-bgs: Stiff, yellow-brown SILT and CLAY, some gravel, some sand, moist, friable (CL). 31.0-32.5 ft-bgs: Loose, yellow-brown SILT, wet (ML). 32.5-34.5 ft-bgs: Stiff, yellow-brown SILT and CLAY, some sand, trace gravel, dry (CL) 34.5-35.0 ft-bgs: Very dense, brown-gray SILT, some sand, trace gravel (ML).		29.0-30.5 ft-bgs: Granular bentonite 30.5-38.0 ft-bgs: #2 sand pack. 32.0-37.0 ft-bgs: 2-inch PVC well screen (0.010-inch slotted).
	Very stiff, brown-yellow SILT and CLAY, some sand, some gravel		7	S	1.9	3 / 3	35.0-38.0 ft-bgs: Very stiff, brown-yellow SILT and CLAY, some sand, some gravel, moist (CL).		
1010.0									
1005.0									
1000.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-58

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 40
DEPTH OF SOIL DRILL: 40
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473158.37 E: 4685672.68
GROUND SURFACE ELEV.: 1049.04
DATUM: N/A
START DATE/TIME: 2/26/2013 3:45:00 PM
END DATE/TIME: 2/28/2013 11:00:00 AM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1045.0	Dense, brown, SILT and GRAVEL, some sand		1	S	0.4	1 / 5	0.0-1.0 ft-: Dense, brown, SILT and GRAVEL, some sand, low recovery due to plugged drill casing.		10-inch road box at surface. Installed 6-inch diameter steel casing in a 10-inch diameter borehole to 29.0 ft-bgs - grouted to surface and let set for >24 hours. Advanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 39 ft-bgs. 0.0-29.0 ft-bgs: Cement grout, 4-inch diameter boring.
1040.0			2	S	0.9 / 0.2	5 / 5	5.0-10.0 ft-bgs: Dense, brown, SILT, some sand moist (ML).		
1035.0	Stiff, red-brown to brown, CLAY, some gravel, some sand, moist		3	S	0.2 / 0.1	5 / 5	10.0-15.0 ft-bgs: Stiff, red-brown, CLAY, some gravel, some sand, moist (CL).		
1030.0			4	S	0.3 / 0.3	5 / 5	15.0-20.0 ft-bgs: Stiff, brown, SILT and CLAY, some sand, moist, friable (CL).		
1025.0	Stiff, gray, SILT and CLAY, some sand, trace gravel, dry		5	S	0.2 / 0.1	5 / 5	20.0-25.0 ft-bgs: Stiff, gray, SILT and CLAY, some sand, trace gravel, dry, friable (CL).		

LITHOLOGY LEGEND

USCS Silt (ML)

USCS Low Plasticity Clay (CL)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-58

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 40
DEPTH OF SOIL DRILL: 40
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473158.37 E: 4685672.68
GROUND SURFACE ELEV.: 1049.04
DATUM: N/A
START DATE/TIME: 2/26/2013 3:45:00 PM
END DATE/TIME: 2/28/2013 11:00:00 AM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Stiff, gray, SILT and CLAY, some sand, trace gravel, dry		6	S	0.5	5 / 5	25.0-30.0 ft-bgs: Stiff, gray, CLAY and SILT, some gravel, some sand, dry, friable (CL).		0.0-29.0 ft-bgs: Cement grout, 4-inch diameter boring.
1020.0									29.0-32.0 ft-bgs: Granular bentonite.
	Stiff, dark yellow, SILT and CLAY, some gravel, some sand, dry		7	S	4.1	5 / 5	30.0-35.0 ft-bgs: Stiff, dark yellow, SILT and CLAY, some gravel, some sand, dry, friable (CL).		32.0-40.0 ft-bgs: #2 sand filter.
1015.0									34.0-39.0 ft-bgs: 2-inch PVC well screen (0.010-inch slotted).
			8	S	0.2 0.3	5 / 5	35.0-40.0 ft-bgs: Stff, dark yellow, SILT and CLAY, some gravel, some sand, dry, friable (CL).		
1010.0									
1005.0									
1000.0									

LITHOLOGY LEGEND

USCS Silt (ML)

USCS Low Plasticity Clay (CL)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-59

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 41
DEPTH OF SOIL DRILL: 41
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473157.08 E: 4685536.73
GROUND SURFACE ELEV.: 1050.19
DATUM: N/A
START DATE/TIME: 2/27/2013 10:00:00 AM
END DATE/TIME: 3/1/2013 9:45:00 AM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Stiff, red-brown, SILT and CLAY, some sand, trace gravel, dry		1	S	7.2 8.5	5 / 5	0.0-2.0 ft-bgs: Stiff, brown, SILT and CLAY, some sand dry, friable (CL). 2.0-5.0 ft-bgs: Stiff, brown, CLAY, some sand, pliable (CL).		10-inch road box at surface. Installed 6-inch diameter steel casing in a 10-inch diameter borehole to 31.0 ft-bgs - grouted to surface and let set for >24 hours. Advanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 40 ft-bgs. 0.0-31.0 ft-bgs: Cement grout
1045.0			2	S	4.5 0.2	5 / 5	5.0-10.0 ft-bgs: Stiff, red-brown, SILT and CLAY, some sand, trace gravel, dry (CL).		
1040.0			3	S	0.2 0.2	5 / 5	10.0-15.0 ft-bgs: Stiff, red-brown, SILT and CLAY, some sand, trace gravel, dry (CL).		
1035.0			4	S	0.2 0.1	5 / 5	15.0-20.0 ft-bgs: Stiff, brown to gray, SILT and CLAY, some sand, trace gravel, dry (CL).		
1030.0	Stiff, gray, SILT and CLAY, some sand, some gravel, dry (CL).		5	S	0.1 0.1	5 / 5	20.0-25.0 ft-bgs: Stiff, gray, SILT and CLAY, some sand, some gravel, dry (CL).		

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)

USCS Silt (ML)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-59

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 41
DEPTH OF SOIL DRILL: 41
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473157.08 E: 4685536.73
GROUND SURFACE ELEV.: 1050.19
DATUM: N/A
START DATE/TIME: 2/27/2013 10:00:00 AM
END DATE/TIME: 3/1/2013 9:45:00 AM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	Stiff, gray, SILT and CLAY, some sand, some gravel, dry (CL).		5	S	0.1	4 / 4	25.0-29.0 ft-bgs: Stiff, gray, SILT and CLAY, some sand, some gravel, dry (CL).		0.0-31.0 ft-bgs: Cement grout
1020.0			6	S	1.7 0.3	5 / 5	29.0-31.0 ft-bgs: Stiff, gray, SILT and CLAY, some gravel, some sand, moist (CL). 31.0-33.0 ft-bgs: Stiff, red-brown, SILT and CLAY, some sand, trace gravel (CL). 33.0-36.0 ft-bgs: Dense, yellow-brown, SILT, some gravel, some sand (ML).		31.0-33.0 ft-bgs: Granular bentonite
	Dense, yellow-brown, SILT, some gravel, some sand								33.0-41.0 ft-bgs: #2 sand filter pack
1015.0									35.0-40.0 ft-bgs: 2-inch PVC well screen (0.010-inch slotted).
			7	S	1.9	3 / 3	36.0-39.0 ft-bgs: Loose, yellow-brown, SILT, some sand, wet (ML).		
	Stiff, yellow-brown, SILT and CLAY, some gravel, some sand, dry		8	S	0.2	2 / 2	39.0-41.0 ft-bgs: Stiff, yellow-brown, SILT and CLAY, some gravel, some sand, dry (CL).		
1010.0									
1005.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)

USCS Silt (ML)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-60

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 20
DEPTH OF SOIL DRILL: 20
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473101.18 E: 4685520
GROUND SURFACE ELEV.: 1052.84
DATUM: N/A
START DATE/TIME: 2/27/2013 2:40:00 PM
END DATE/TIME: 2/27/2013 3:05:00 PM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Stiff, dark gray, SILT and CLAY, some sand, moist		1	S	0.2 0.2	5 / 5	0.0-4.0 ft-bgs: Stiff, dark gray, SILT and CLAY, some sand, moist, friable, moist (CL). 4.0-5.0 ft-bgs: Dense, brown to light tan, SILT, some sand, dry (ML).		2.6 ft above ground casing stickup at surface. Bollards placed around well for protection. 4-inch diameter hole 0.0-2.0 ft-bgs: Cement 4-inch steel casing to 2.6 ft above ground surface 0.0-13.0 ft-bgs: Granular bentonite
	Dense, brown to light tan, SILT, some sand, dry								
1045.0	Stiff, brown with gray streaks, SILT and CLAY, some sand, trace gravel		2	S	0.2 0.2	5 / 5	5.0-10.0 ft-bgs: Stiff, brown with gray streaks, SILT and CLAY, some sand, trace gravel, friable, wet (CL).		
1040.0			3	S	0.2 0.1	5 / 5	10.0-15.0 ft-bgs: Stiff, brown with red streaks, SILT and CLAY, some sand, moist, no odor (CL), pliable.		13.0-20.0 ft-bgs: #2 Sand filter
	15.0-20.0 ft-bgs: Stiff, gray, SILT and CLAY, some sand, trace gravel, moist								15.0-20.0 ft-bgs: 2-inch PVC well screen (0.010-inch slotted).
1035.0			4	S	0.1 0.1	5 / 5	15.0-20.0 ft-bgs: Stiff, gray, SILT and CLAY, some sand, trace gravel, moist, friable (CL).		
1030.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)

USCS Silt (ML)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-61 (GA-13-SB-01)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 40
DEPTH OF SOIL DRILL: 40
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473628.29 E: 4685657.98
GROUND SURFACE ELEV.: 1049.84
DATUM: N/A
START DATE/TIME: 2/26/2013 1:50:00 PM
END DATE/TIME: 2/28/2013 9:30:00 AM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Stiff, gray-brown, SILTY CLAY and SAND, trace gravel, dry		1	S	0.5	4 / 5	0.0-5.0 ft-bgs: Stiff, gray CLAY, some sand, dry, fiable, wet on bottom (CL).		10-inch steel flush mount at surface. Installed 6-inch diameter steel casing in a 10-inch diameter borehole to 30.0 ft-bgs - grouted to surface and let set for >24 hours. Advanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 39 ft-bgs. GA-13-SB-01 advanced adjacent to MW-61. 0.0-30.0 ft-bgs cement grout.
1045.0			2	S	0 / 1.6	5 / 5	5.0-10.0 ft-bgs: Stiff, gray-brown, SILTY CLAY and SAND, trace gravel, dry (CL). Gravel on last foot of sample.		
1040.0			3	S	0.2 / 11.4	5 / 5	10.0-11.0 ft-bgs: Soft, brown, SILT and CLAY, some gravel, wet. 11.0-15.0 ft-bgs: Stiff, dark gray, SILTY CLAY and SAND, trace gravel, dry (CL)		
1035.0			4	S	2.0 / 1.6	5 / 5	15.0-20.0 ft-bgs: Stiff, lime green, SILT and CLAY, some sand, some gravel, dry (CL).		
1030.0			5	S	6.3	5 / 5	20.0-25.0 ft-bgs: Soft, gray-brown, SILT and CLAY, some sand, some gravel, moist (CL).		
1025.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)
USCS Silt (ML)
USCS Well-graded Sand (SW)
USCS Silty Sand (SM)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-61 (GA-13-SB-01)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 40
DEPTH OF SOIL DRILL: 40
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473628.29 E: 4685657.98
GROUND SURFACE ELEV.: 1049.84
DATUM: N/A
START DATE/TIME: 2/26/2013 1:50:00 PM
END DATE/TIME: 2/28/2013 9:30:00 AM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Stiff, gray-brown, SILTY CLAY and SAND, trace gravel, dry		6	S	2.1 0.5	5 / 5	25.0-30.0 ft-bgs: Very dense, gray, SILTY CLAY and SAND, trace gravel, wet (CL).		0.0-30.0 ft-bgs cement grout.
1020.0	Sand lens								30.0-32.0 ft-bgs: Granular bentonite, 4-inch diameter hole
	Stiff, yellow to gray, sandy SILTY CLAY, trace gravel		7	S	1.3 0.2	5 / 5	30.0-31.0 ft-bgs: Gray, fine SAND, moist (SW). 31.0-32.0 ft-bgs: Gray, SILT and CLAY, some sand, moist (CL). 32.0-35.0 ft-bgs: Stiff, yellow, sandy SILTY CLAY, trace gravel (CL).		32.0-40.0 ft-bgs: #2 sand filter 34.0-39.0 ft-bgs: 2-inch PVC well screen (0.010-inch slotted)
1015.0	Dense, light yellow-brown, SAND and SILT, trace gravel		8	S	4.6 7.8	4 / 5	35.0-40.0 ft-bgs: Dense, light yellow-brown, SAND and SILT, trace gravel, moist (SM).		
1010.0	Soft, light olive brown to gray, sandy SILTY CLAY, trace gravel, moist		9	S	38.4 7.6	5 / 5	40.0-43.0 ft-bgs: Soft, light olive brown, sandy SILTY CLAY, trace gravel, moist (CL). 43.0-45.0 ft-bgs: Stiff, dark yellow with reddish streaks, SILT and CLAY, some gravel, dry (CL).		
1005.0	Dense, gray, SILT, some sand		10	S	2.6	4 / 5	45.0-50.0 ft-bgs: Dense, gray, SILT, some sand, dry (ML).		
1000.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)
USCS Silt (ML)
USCS Well-graded Sand (SW)
USCS Silty Sand (SM)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: MW-61 (GA-13-SB-01)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 40
DEPTH OF SOIL DRILL: 40
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473628.29 E: 4685657.98
GROUND SURFACE ELEV.: 1049.84
DATUM: N/A
START DATE/TIME: 2/26/2013 1:50:00 PM
END DATE/TIME: 2/28/2013 9:30:00 AM

DRILLING METHOD: Sonic
CORING METHOD: N/A
DRILL RIG: CDD 1415

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Stiff, dark gray, sandy SILTY CLAY, trace gravel, dry		11	S	1.2 2.0	5 / 5	50.0-55.0 ft-bgs: Stiff, dark gray, sandy SILTY CLAY, trace gravel, dry (CL).		
995.0	Dense, black SILT, some sand, trace gravel, dry		12	S	0.5 0.6	5 / 5	55.0-58.0 ft-bgs: Dense, black SILT, some sand, trace gravel, dry (ML). 58.0-60.0 ft-bgs: Dense, black SILT, some sand, trace gravel, trace clay, dry (ML).		
990.0			13	S	29	5 / 5	60.0-65.0 ft-bgs: Stiff, black, sandy CLAYEY SILT, trace gravel, moist (ML).		
985.0									
980.0									
975.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)
USCS Silt (ML)
USCS Well-graded Sand (SW)
USCS Silty Sand (SM)

DRILLING COMPANY: Boart Longyear
DRILLER: J. Drabek

GOLDER INSPECTOR: DWM

LOGGED BY: MRH
LOGGED BY DATE: 3/12/2013
CHECKED BY: NSC
CHECKED BY DATE: 3/12/2013

Golder Associates

BOREHOLE LOG: SB-04 (LIF-06)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 25
DEPTH OF SOIL DRILL: 25
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: N/A E: N/A
GROUND SURFACE ELEV.: 1050.7
DATUM: N/A
START DATE/TIME: 4/30/2012 5:15:00 PM
END DATE/TIME: 4/30/2012 6:10:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0							0.0-5.0: Not sampled.		Well Not Installed
1045.0	Firm to stiff, black to gray, SILTY CLAY, trace Sand, trace Gravel.		1	DPT	278	55 / 60	5.0-6.0 ft-bgs: Stiff, olive black (5Y 2/1), SILTY CLAY, trace medium to coarse Sand, slightly moist (ML-CL). Oil sheen and petroleum odor. 6.0-6.1 ft-bgs: Stiff, olive black (5Y 2/1), medium to coarse SAND lense, slightly moist (SW). 6.1-7.5 ft-bgs: Stiff, olive black (5Y 2/1), SILTY CLAY, trace medium to coarse Sand, slightly moist (ML-CL). 7.5-10.0 ft-bgs: Firm, dark greenish gray (5G 4/1), SILTY CLAY, trace medium to coarse Gravel, slightly moist (ML-CL). Sample collected 6.0-8.0 ft.		
1040.0	Loose, gray, SAND.		2	DPT	28.7	4 / 60	Note: very little recovery 10.0-15.0 ft-bgs. Driller notes subsurface soils were very sandy. Move extra sample analysis at this interval to 15-20 ft-bgs interval.		
1035.0	Very stiff, gray, SILTY CLAY, trace Sand.		3	DPT	12.3	39 / 60	15.0-17.0 ft-bgs: Loose, medium dark gray (N4) fine to medium SILTY SAND, wet (SM). 17.0-20.0 ft-bgs: Very stiff, medium dark gray (N4), SILTY CLAY, trace fine to medium Sand, moist (ML-CL). Sample collected 16.0-18.0 ft.		
1030.0				DPT			Note: Driller accidentally drove interval from 20-25 ft-bgs with sampler closed. No sample was collected. (See boring log for SB-04a.)		

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)

USCS Well-graded Sand (SW)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: SB-04a (LIF-06)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 25
DEPTH OF SOIL DRILL: 25
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: N/A E: N/A
GROUND SURFACE ELEV.: 1050.7
DATUM: N/A
START DATE/TIME: 4/30/2012 6:15:00 PM
END DATE/TIME: 4/30/2012 6:35:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Well Not Installed
1045.0							0.0-10.0: Not sampled.		
1040.0	Loose, gray, SILTY SAND.		1	DPT	24.8	37 / 60	10.0-13.25 ft-bgs: Loose, medium dark gray (N4), fine to medium SILTY SAND, wet (ML). 13.25-15.0 ft-bgs: Very stiff, medium dark gray (N4), SILTY CLAY, trace fine to medium Sand, moist (ML-CL). Sample collected 10.0-12.0 ft.		
	Very stiff, gray, SILTY CLAY, trace Sand.								
1035.0							15.0-20.0 ft-bgs: Not sampled.		
1030.0	Very stiff, gray, SILTY CLAY, trace Sand.		2	DPT	0.5	47 / 60	20.0-23.5 ft-bgs: Firm, medium dark gray (N4), SILTY CLAY, trace fine to medium Sand, moist (ML-CL). 23.5-25.0 ft-bgs: Very stiff, medium dark gray (N4), SILTY CLAY, trace fine to medium Sand, moist (ML-CL). Sample collected 28.0-30.0 ft.		

LITHOLOGY LEGEND

USCS Silty Sand (SM)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: SB-05 (MIP-23/LIF-16)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 15
DEPTH OF SOIL DRILL: 15
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: N/A E: N/A
GROUND SURFACE ELEV.: 1050.7
DATUM: N/A
START DATE/TIME: 5/1/2012 8:30:00 AM
END DATE/TIME: 5/1/2012 8:45:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete								Well Not Installed
	Loose, brown, medium to coarse SAND, trace gravel, trace Silt.								
	Firm to stiff, black to gray, SILTY CLAY, little to trace Sand, trace organics.		1	DPT	2.3	47 / 60	0.0-0.75 ft-bgs: Concrete 0.75-1.25 ft-bgs: Loose, moderate brown (5YR 3/4), medium to coarse subrounded SAND, trace fine Gravel, trace Silt, wet (SW). 1.25-5.0 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, trace medium to coarse subrounded Sand, trace organics, slightly moist (ML-CL). Sampled collected 2.0-4.0 ft.		
1045.0			2	DPT	2.7	50 / 60	5.0-8.5 ft-bgs: Stiff, medium bluish gray (5B 5/1) and dark greenish gray (5G 4/1), SILTY CLAY, trace fine to medium Sand, slightly moist (ML-CL). 8.5-10.0 ft-bgs: Firm, olive gray (5Y 4/1) mottled moderate brown (5YR 3/4), SILTY CLAY, little medium to coarse Sand, moist (ML-CL). Sampled collected 6.0-8.0 ft.		
1040.0			3	DPT	4.1	48 / 60	10.0-11.5 ft-bgs: Firm, olive gray (5Y 4/1) mottled moderate brown (5YR 3/4), SILTY CLAY, little medium to coarse Sand, moist (ML-CL). 11.5-12.75 ft-bgs: Loose, moderate brown (5YR 3/4), fine to coarse subrounded SAND, little Silt, wet (SW). 12.75-15.0 ft-bgs: Stiff, medium dark gray (N4), SILTY CLAY, trace medium to coarse Sand, slightly moist (ML-CL). Sampled collected 12.0-14.0 ft.		
	Loose, brown, fine to coarse SAND, little Silt.								
	Stiff, gray, SILTY CLAY, trace Sand.								
1035.0									
1030.0									

LITHOLOGY LEGEND

Concrete

USCS Well-graded Sand (SW)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: SB-06 (MIP-27)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 25
DEPTH OF SOIL DRILL: 25
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: N/A E: N/A
GROUND SURFACE ELEV.: 1050.7
DATUM: N/A
START DATE/TIME: 5/1/2012 9:35:00 AM
END DATE/TIME: 5/1/2012 10:00:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0							0.0-5.0 ft-bgs: Not Sampled.		Well Not Installed
1045.0	Firm to stiff, gray, SILTY CLAY, little Sand, trace Gravel.		1	DPT	0.8	38 / 60	5.0-10.0 ft-bgs: Firm, olive gray (5Y 4/1) mottled moderate brown (5YR 3/4), SILTY CLAY, little medium to coarse Sand, moist (ML-CL). Sampled collected 6.0-8.0 ft.		
1040.0							10.0-20.0 ft-bgs: Not Sampled.		
1035.0									
1030.0			2	DPT	0.3	36 / 48	20.0-24.0 ft-bgs: Stiff, medium dark gray (N4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, slightly moist (ML-CL). Sampled collected 20.0-22.0 ft.		

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: SB-07 (MIP-28)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 5
DEPTH OF SOIL DRILL: 5
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: N/A E: N/A
GROUND SURFACE ELEV.: 1050.7
DATUM: N/A
START DATE/TIME: 5/1/2012 10:20:00 AM
END DATE/TIME: 5/1/2012 10:25:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Loose, brown, medium to coarse SAND, little gravel, trace Silt. Firm to stiff, black to gray, SILTY CLAY, trace Gravel, trace Sand, trace organics.		1	DPT	0.1	48 / 60	0.0-0.75 ft-bgs: Concrete 0.75-1.25 ft-bgs: Loose, moderate brown (5YR 3/4), medium to coarse subrounded SAND, little fine Gravel, trace Silt, wet (SW). 1.25-3.0 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, trace fine to medium Sand, trace organics, slightly moist (ML-CL). 3.0-5.0 ft-bgs: Firm, olive gray (5Y 4/1), SILTY CLAY, trace medium Gravel, trace fine to medium Sand, moist (ML-CL).		Well Not Installed
1045.0									
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

Concrete

USCS Well-graded Sand (SW)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: SB-08 (MIP-25)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 15
DEPTH OF SOIL DRILL: 15
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: N/A E: N/A
GROUND SURFACE ELEV.: 1050.7
DATUM: N/A
START DATE/TIME: 5/1/2012 10:40:00 AM
END DATE/TIME: 5/1/2012 11:00:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Loose, brown, medium to coarse SAND, trace gravel. Firm to stiff, black to gray to brown, SILTY CLAY, little to trace Sand, trace gravel, trace organics.		1	DPT	0.2	40 / 60	0.0-0.75 ft-bgs: Concrete 0.75-1.5 ft-bgs: Loose, moderate brown (5YR 3/4), medium to coarse subrounded SAND, trace fine to medium Gravel, wet (SW). 1.5-3.5 ft-bgs: Stiff, grayish black (N2), SILTY CLAY, trace fine to medium Sand, trace organics, slightly moist (ML-CL). 3.5-5.0 ft-bgs: Firm, light olive gray (5Y 6/1) mottled light brown (5YR 5/6), SILTY CLAY, trace fine to medium Sand, moist (ML-CL). Sampled collected 2.0-4.0 ft.		Well Not Installed
1045.0							5.0-10.0 ft-bgs: Not Sampled.		
1040.0			2	DPT	0.4	46 / 60	10.0-13.0 ft-bgs: Stiff, olive gray (5Y 4/1) mottled moderate brown (5YR 3/4), SILTY CLAY, little medium to coarse subangular Sand, trace fine Gravel, slightly moist (ML-CL). 13.0-15.0 ft-bgs: Stiff, medium dark gray (N4), SILTY CLAY, trace fine to medium Gravel, trace Sand, slighly moist (ML-CL). Sampled collected 10.0-12.0 ft.		
1035.0									
1030.0									

LITHOLOGY LEGEND

Concrete

USCS Well-graded Sand (SW)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: SB-09 (MIP-09)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 5
DEPTH OF SOIL DRILL: 5
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: N/A E: N/A
GROUND SURFACE ELEV.: 1050.7
DATUM: N/A
START DATE/TIME: 5/1/2012 11:20:00 AM
END DATE/TIME: 5/1/2012 11:30:00 AM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	Concrete Firm to stiff, black to gray to brown, SILTY CLAY, trace Sand, trace gravel.		1	DPT	1.4	53 / 60	0.0-0.75 ft-bgs: Concrete 0.75-2.25 ft-bgs: Stiff, olive black (5Y 2/1), SILTY CLAY, trace medium Sand, slighly moist (ML-CL). 2.25-5.0 ft-bgs: Firm, light olive gray (5Y 6/1), SILTY CLAY, trace medium Gravel, trace medium to coarse Sand, slightly moist (ML-CL). Sampled collected 3.0-5.0 ft.		Well Not Installed
1045.0									
1040.0									
1035.0									
1030.0									

LITHOLOGY LEGEND

Concrete

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: SB-10 (MIP-12)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 20
DEPTH OF SOIL DRILL: 20
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: N/A E: N/A
GROUND SURFACE ELEV.: 1050.7
DATUM: N/A
START DATE/TIME: 5/1/2012 12:55:00 PM
END DATE/TIME: 5/1/2012 1:15:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0							0.0-5.0 ft-bgs: Not Sampled.		Well Not Installed
1045.0	Compact, brown, SILTY SAND, trace Gravel, trace Clay.		1	DPT	0.0	35 / 60	5.0-7.75 ft-bgs: Compact, dark yellowish brown (10YR 4/2), medium to coarse SILTY SAND, trace fine Gravel, trace Clay, wet (SM). 7.75-10 ft-bgs: Firm light olive gray (5Y 4/2), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, moist (ML-CL). Sampled collected 5.0-7.0 ft.		
	Firm to stiff, gray to brown to black, SILTY CLAY, little Sand, trace Gravel.								
1040.0							10.0-15.0 ft-bgs: Not Sampled.		
1035.0			2	DPT	11.0	42 / 60	15.0-17.5 ft-bgs: Stiff, olive-gray (5Y 4/1) and moderate brown (5YR 3/4) mottled black (N1), SILTY CLAY, little fine to medium Sand, trace fine Gravel, slighly moist (ML-CL). 17.5-20.0 ft-bgs: Stiff, olive gray (5Y 4/1), SILTY CLAY, little fine to medium Sand, trace fine to medium Gravel, slightly moist (ML-CL). Sampled collected 16.0-18.0 ft.		
1030.0									

LITHOLOGY LEGEND

USCS Silty Sand (SM)

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: SB-11 (MIP-02)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 20
DEPTH OF SOIL DRILL: 20
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: N/A E: N/A
GROUND SURFACE ELEV.: 1050.7
DATUM: N/A
START DATE/TIME: 5/1/2012 1:40:00 PM
END DATE/TIME: 5/1/2012 2:00:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0									Well Not Installed
1045.0							0.0-14.0 ft-bgs: Not Sampled.		
1040.0									
1035.0	Firm to stiff, gray to brown, SILTY CLAY, little to trace Sand, trace Gravel.		1	DPT	3.2	57 / 72	14.0-16.0 ft-bgs: Stiff, moderate brown (5YR 3/4) mottled olive gray (5YR 3/4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, slighly moist (ML-CL). 16.0-20.0 ft-bgs: Firm, olive gray (5Y 4/1), SILTY CLAY, trace fine to medium Gravel, trace medium to coarse Sand, slighly moist (ML-CL). Sampled collected 14.0-16.0 ft. Sampled collected 18.0-20.0 ft.		
1030.0									

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: SB-12 (MIP-16a)

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 15
DEPTH OF SOIL DRILL: 15
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: N/A E: N/A
GROUND SURFACE ELEV.: 1050.7
DATUM: N/A
START DATE/TIME: 5/1/2012 2:10:00 PM
END DATE/TIME: 5/1/2012 2:50:00 PM

DRILLING METHOD: Direct Push
CORING METHOD: N/A
DRILL RIG: 6600

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0							0.0-4.0 ft-bgs: Not Sampled.		Well Not Installed
1045.0	Firm, gray, SILTY CLAY, little Sand.		1	DPT	18.9	33 / 48	4.0-6.5 ft-bgs: Firm, medium gray (N5), SILTY CLAY, little fine to medium Sand, moist (ML-CL). 6.5-7.0 ft-bgs: Loose, medium gray (N5), medium to coarse subangular SAND, trace fine Gravel, trace Silt, very moist (SW). 7.0-8.0 ft-bgs: Firm, medium gray (N5), SILTY CLAY, some fine to medium Sand, moist (ML-CL). Sampled collected 4.0-8.0 ft.		
	Loose, gray, medium to coarse SAND, trace Gravel, trace Silt.								
	Firm, gray to brown, SILTY CLAY, some to trace Sand, trace Gravel.						8.0-10.0 ft-bgs: Not Sampled.		
1040.0			2	DPT	0.3	53 / 60	10.0-12.5 ft-bgs: Firm, olive-gray (5Y 4/1) mottled moderate brown (5YR 3/4), SILTY CLAY, little medium to coarse Sand, trace fine Gravel, slighly moist (ML-CL). 12.5-15.0 ft-bgs: Firm, olive gray (5Y 4/1), SILTY CLAY, trace medium to coarse Sand, slightly moist (ML-CL). Sampled collected 10.0-12.0 ft.		
1035.0									
1030.0									

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)

USCS Well-graded Sand (SW)

DRILLING COMPANY: Matrix Environmental
DRILLER: G. Paquette

GOLDER INSPECTOR: MWD

LOGGED BY: JRT
LOGGED BY DATE: 5/15/2012
CHECKED BY: ATK
CHECKED BY DATE: 8/3/2012

Golder Associates

BOREHOLE LOG: MW-62

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 73
DEPTH OF SOIL DRILL: 73
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473166.18 E: 4685646.18
GROUND SURFACE ELEV.: 1049.15
DATUM: N/A
START DATE/TIME: 9/16/2013 9:15:00 AM
END DATE/TIME: 9/17/2013 5:40:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	SILTY CLAY and fine to coarse SAND, trace fine subangular to subrounded gravel, olive yellow, wet, soft to stiff.		1	Sonic	0	6 / 6	0.0-0.5 ft.: Concrete 0.5-6.0 ft.: (CL), SILTY CLAY and fine to coarse SAND, trace fine subangular gravel, olive yellow, wet, soft to firm. Collected ATL sample 3.5-4.0 ft		8-inch steel flush mount casing. 0.5-1.0 ft.: Cement 0.0-29.0 ft-bgs: Cement grout, 10-inch diameter borehole to 29 ft. Installed 6-inch diameter steel casing in a 10-inch diameter borehole to 29 ft bgs - grouted to surface and let set for >24 hours. Advanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 72 ft-bgs.
1045.0									
			2	Sonic	0	8 / 8	6.0-12.9 ft.: (CL), SILTY CLAY and fine to coarse SAND, trace fine sub-angular gravel, olive yellow, wet, soft to firm. 12.9-14.0 ft.: (CL), SILTY CLAY and fine to coarse SAND, trace fine subangular to subrounded gravel, dark gray, wet, firm to stiff.		
1040.0									
	SILTY CLAY and fine to coarse SAND, trace fine subangular to subrounded gravel, dark gray, wet, firm to stiff.								
1035.0			3	Sonic	0	10 / 10	14.0-24.0 ft.: (CL), SILTY CLAY and fine to coarse SAND, trace fine subangular to subrounded gravel, dark gray, wet, firm to stiff. Collected ATL sample 20.4-21.0 ft		
1030.0									
1025.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)
USCS Silty Sand (SM)
USCS Silt (ML)
USCS Low Plasticity Silty Clay (CL-ML)
USCS Clayey Sand (SC-SM)

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/24/2013
CHECKED BY: JSP
CHECKED BY DATE: 10/30/2013

Golder Associates

BOREHOLE LOG: MW-62

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 73
DEPTH OF SOIL DRILL: 73
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473166.18 E: 4685646.18
GROUND SURFACE ELEV.: 1049.15
DATUM: N/A
START DATE/TIME: 9/16/2013 9:15:00 AM
END DATE/TIME: 9/17/2013 5:40:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	SILTY CLAY and fine to coarse SAND, trace fine subangular to subrounded gravel, dark gray, wet, firm to stiff.		4	Sonic	0	5 / 5	24.0-25.4 ft.: (CL and SP), SILTY CLAY and fine to coarse SAND, trace fine subangular to subrounded gravel, dark gray, wet, firm to stiff. 25.4-29.0 ft.: (CL), SILTY CLAY and fine to coarse SAND, trace subangular to subrounded fine gravel, dark gray, clay content decreasing from previous samples, wet, stiff.		
1020.0	SILT, trace fine sand, gray, wet, soft.						29.0-30.7 ft.: (ML), SILT, trace fine sand, gray, wet, soft. 30.7-31.4 ft.: (ML), SILT, some angular to subangular gravel, brownish yellow, wet, very stiff.		Installed 6" diameter steel casing to 29 ft bgs in 10" diameter borehole. Used 90 gallons of grout to set casing.
1015.0	Fine to coarse SAND and SILTY CLAY to CLAYEY SILT, trace fine to coarse subangular to subrounded gravel, brownish yellow, wet, firm to very stiff.		5	Sonic	0	8 / 8	31.4-37.0 ft.: (SC-SM), fine to coarse SAND and SILTY CLAY to CLAYEY SILT, trace fine to coarse subangular to subrounded gravel, brownish yellow, some gray vertical to horizontal silt seams, wet, firm to very firm. Collected ATL sample 31.0-32.0 ft		
1010.0	Fine SAND and SILT, trace fine to coarse subangular gravel, brownish yellow, wet, soft to firm.						37.0-39.1 ft.: (SM), fine SAND and SILT, trace fine to coarse subangular gravel, brownish yellow, wet, soft to firm.		
	SILTY CLAY to CLAYEY SILT, trace angular to subangular fine to coarse fine gravel, yellow-brown, stiff to hard.		6	Sonic	0	6 / 6	39.1-43.0 ft.: (ML), CLAYEY SILT, some fine to coarse sand, trace fine subangular to subrounded gravel, brown, reddish brown mottling from 43.1-43.4 ft, moist, stiff to very stiff. Collected ATL sample 37.0-38.0 ft		
1005.0	SILTY CLAY to CLAYEY SILT, trace angular to subangular fine to coarse fine gravel, yellow-brown, stiff to hard.		7	Sonic	0	6 / 6	43.0-43.4 ft.: (ML), CLAYEY SILT, some fine to coarse sand, trace fine subangular to subrounded gravel, brown, moist, stiff to very stiff. 43.4-49.0 ft.: (CL-ML), SILTY CLAY to CLAYEY SILT, trace angular to subangular fine to coarse fine gravel, yellow-brown, stiff to hard. Collected ATL sample 43.5-44.5 ft		
1000.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)
USCS Silty Sand (SM)
USCS Silt (ML)
USCS Low Plasticity Silty Clay (CL-ML)
USCS Clayey Sand (SC-SM)

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/24/2013
CHECKED BY: JSP
CHECKED BY DATE: 10/30/2013

Golder Associates

BOREHOLE LOG: MW-62

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 73
DEPTH OF SOIL DRILL: 73
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473166.18 E: 4685646.18
GROUND SURFACE ELEV.: 1049.15
DATUM: N/A
START DATE/TIME: 9/16/2013 9:15:00 AM
END DATE/TIME: 9/17/2013 5:40:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Fine SANDY SILT, yellow-brown, wet, firm.								
	Fine to coarse sandy SILTY CLAY, trace fine gravel, brownish-gray to dark gray, moist wet, firm to very stiff.								
995.0			8	Sonic	0	10.5 / 10	49.0-49.8 ft.: (CL-ML), SILTY CLAY to CLAYEY SILT, trace angular to subangular fine to coarse fine gravel, yellow-brown, stiff to hard. 49.8-50.0 ft.: (ML), fine SANDY SILT, yellow-brown, wet, firm. 50.0-55.2 ft.: (CL-ML), fine to coarse sandy CLAYEY SILT, some cobbles, some subangular to subrounded fine to coarse gravel, brown, moist, very stiff. 55.2-55.4 ft.: (CH-CL), SILTY CLAY, gray, moist, firm to stiff. 55.4-56.0 ft.: (MH), CLAYEY SILT, some fine to coarse sand, black, wet, stiff. 56.0-59.0 ft.: (CL), fine to coarse sandy SILTY CLAY, brownish-gray to dark gray, moist, stiff to very stiff. Collected ATL sample 55.4-56.0 ft		90 gallons of grout, 95% Portland Type I/II Cement and 5% Quick-gel Bentonite Powder (5 bags, 94#/bag) with 30 gallons of water.
990.0			9	Sonic	0	11 / 10	59.0-69.0 ft.: (CL), fine to coarse sandy SILTY CLAY, brownish-gray to dark gray, moist, stiff to very stiff. Collected ATL sample 59.0-60.0 ft		62.0-64.5 ft.: 1/2 bag of bentonite chips.
985.0									64.5-73.0 ft.: 4 bags of #40 Red Flint Sand (50#/bag) 67.0-72.0 ft.: 2" diameter, 0.01"-slotted PVC pipe.
980.0			10	Sonic	0 0	4 / 4	69.0-71.0 ft.: (CL), fine to coarse sandy SILTY CLAY, trace angular to subangular fine gravel, gray, moist, very stiff. 71.0-73.0 ft.: (CL-ML), SILTY Clay to CLAYEY SILT, some fine to coarse sand, gray, wet, firm to stiff. Collected ATL sample 69.0-70.0 ft		
975.0									

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)
USCS Silty Sand (SM)
USCS Silt (ML)
USCS Low Plasticity Silty Clay (CL-ML)
USCS Clayey Sand (SC-SM)

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/24/2013
CHECKED BY: JSP
CHECKED BY DATE: 10/30/2013

Golder Associates

BOREHOLE LOG: MW-63

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 73
DEPTH OF SOIL DRILL: 73
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473322.68 E: 4685890.42
GROUND SURFACE ELEV.: 1049.14
DATUM: N/A
START DATE/TIME: 9/16/2013 1:54:00 PM
END DATE/TIME: 9/18/2013 1:40:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Sandy SILT, brown to black, dry, soft.						0.0-2.3 ft.: (ML), sandy SILT, brown to black, dry, soft. 2.3-4.3 ft.: (CL), SILTY CLAY, some fine to coarse sand, dark gray, moist, firm to hard. 4.3-5.0 ft.: (CH-CL), SILTY CLAY, light gray with some brown staining, stronger odor than detected by PID, soft.		8-inch steel flush mount casing. 0.5-1.0 ft.: Cement 0.0-29.0 ft-bgs: Cement grout, 10-inch diameter borehole to 29 ft. Installed 6-inch diameter steel casing in a 10-inch diameter borehole to 29 ft bgs - grouted to surface and let set for >24 hours. Advanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 72 ft-bgs.
	SILTY CLAY, light gray to olive gray to dark gray, moist to wet, soft.		1	Sonic	13.8	5 / 5			
1045.0									
					0		5.0-6.7 ft.: (CH-CL), SILTY CLAY, light gray with some brown staining, stronger odor than detected by PID, soft. 6.7-8.2 ft.: (CL), SILTY CLAY, olive gray, wet, soft. 8.2-8.55 ft.: (CL), SILTY CLAY, trace fine subangular gravel, olive gray, brown staining with odor, wet, soft. 8.55-8.6 ft.: (CL), SILTY SAND, brown, wet, loose. 8.6-9.9 ft.: (CL), SILTY CLAY and fine to coarse SAND, trace fine subangular gravel, gray to brown, odor, wet, stiff. 9.9-10.0 ft.: (SP-SM), fine to medium SAND, some silt, trace subangular gravel, brown, odor, wet, compact.		
	SILTY CLAY and fine to coarse SAND, trace fine subangular gravel, gray to brown, wet, stiff.								
1040.0									
	Fine to medium SAND, some silt, trace subangular gravel, brown, wet, compact.		2	Sonic		10 / 10			
	SILTY CLAY and fine to coarse SAND, some rounded cobbles, trace to some subrounded to rounded gravel, gray, wet, stiff.				0				
1035.0									
							10.0-10.2 ft.: (SP-SM), fine to medium SAND, some silt, trace subangular gravel, brown, odor, wet, compact. 10.2-11.0 ft.: (SP-SM), fine to medium SAND, some silt, brown, odor, wet, compact. 11.0-25.0 ft.: (CL), SILTY CLAY and fine to coarse SAND, some rounded cobbles 1" in diameter and 2.5" long, trace to some subrounded to rounded gravel, gray, wet, stiff. Collected ATL sample 14.0-14.5 ft		
1030.0			3	Sonic	0	10 / 10			
1025.0									

LITHOLOGY LEGEND

USCS Silt (ML)
USCS Poorly-graded Sand with Silt (SP-SM)
USCS Low to High Plasticity Clay (CL-CH)
USCS Clayey Sand (SC-SM)
USCS Low Plasticity Clay (CL)
USCS Silty Gravel

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/24/2013
CHECKED BY: JSP
CHECKED BY DATE: 10/30/2013

Golder Associates

BOREHOLE LOG: MW-63

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 73
DEPTH OF SOIL DRILL: 73
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473322.68 E: 4685890.42
GROUND SURFACE ELEV.: 1049.14
DATUM: N/A
START DATE/TIME: 9/16/2013 1:54:00 PM
END DATE/TIME: 9/18/2013 1:40:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	SILTY CLAY and fine to coarse SAND, some rounded cobbles, trace to some subrounded to rounded gravel, gray, wet, stiff.		4	Sonic	0	4 / 4	25.0-29.0 ft.: (CL), SILTY CLAY and fine to coarse SAND, some rounded cobbles 1" in diameter and 2.5" long, trace to some subrounded to rounded gravel, gray, wet, stiff.		
1020.0	Fine to coarse SAND and SILTY CLAY to CLAYEY SILT, trace fine to coarse subangular gravel, yellowish brown, wet, very dense.		5	Sonic	0	6 / 6	29.0-29.6 ft.: (CL), SILTY CLAY and fine to coarse SAND, trace to some fine subrounded to rounded gravel, gray, wet, stiff. 29.6-31.0 ft.: (SC-SM), fine to coarse SAND and SILTY CLAY to CLAYEY SILT, trace fine to coarse subangular gravel, yellowish brown, 1/2 inch fine to coarse silty sand seam at 30.5 ft bgs, very dense. Collected ATL sample 30.0-31.0 ft 31.0-31.7 ft.: (SP-SM), medium SILTY SAND, poorly graded, yellowish brown, wet, loose to compact.		0-29.0 ft.: Installed 6-inch diameter steel casing to 29 ft bgs. 75 gallons of grout, 95% Portland Type I/II Cement and 5% Quick-gel Bentonite Powder (7 bags, 94#/bag) with 30 gallons of water.
1015.0	SILTY GRAVEL, some fine to coarse sand, wet, loose.						31.7-35.0 ft.: (SC-SM), fine to coarse SAND and SILTY CLAY to CLAYEY SILT, some fine subangular to subrounded gravel, yellowish brown, wet, very dense. Collected ATL sample 34.0-35.0 ft		
	SILTY SAND, poorly graded, trace fine subangular gravel, yellowish brown, wet, loose.						35.0-35.5 ft.: (GM), SILTY GRAVEL, some fine to coarse sand, wet, loose. 35.5-38.0 ft.: (SP-SM), fine SILTY SAND, poorly graded, trace fine subangular gravel, yellowish brown, wet, loose.		
1010.0	SILTY GRAVEL, rounded to subrounded, some fine to coarse sand, brown, wet, loose to compact.						38.0-39.7 ft.: (GM) SILTY GRAVEL, rounded to subrounded, some fine to coarse sand, brown, wet, loose to compact.		
	SILTY CLAY to CLAYEY SILT, some fine sand, trace subrounded gravel, dark brown to brown to gray, dry to wet, stiff to very stiff.		6	Sonic	0	20 / 20	39.7-39.8 ft.: (SP-SM), fine SILTY SAND, poorly graded, brown, wet, loose. 39.8-42.0 ft.: (ML/CL), CLAYEY SILT to SILT CLAY, some subangular to subrounded gravel, brown, moist, stiff to very stiff.		
1005.0							42.0-43.2 ft.: (ML/CL), CLAYEY SILT, trace subrounded gravel, yellowish brown with light gray mottling, soft to firm. 43.2-46.4 ft.: (CL), SILTY CLAY, fine to coarse, trace subangular to subrounded gravel, yellowish brown, moist, very stiff. Collected ATL sample 43.5-44.5 ft 46.4-47.5 ft.: (ML/CL), CLAYEY SILT, trace fine subangular to subrounded gravel, dark brown, varved gray and black clay stringers, stiff to very stiff.		
1000.0									

LITHOLOGY LEGEND

USCS Silt (ML)
USCS Poorly-graded Sand with Silt (SP-SM)
USCS Low to High Plasticity Clay (CL-CH)
USCS Clayey Sand (SC-SM)
USCS Low Plasticity Clay (CL)
USCS Silty Gravel

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/24/2013
CHECKED BY: JSP
CHECKED BY DATE: 10/30/2013

Golder Associates

BOREHOLE LOG: MW-63

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 73
DEPTH OF SOIL DRILL: 73
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473322.68 E: 4685890.42
GROUND SURFACE ELEV.: 1049.14
DATUM: N/A
START DATE/TIME: 9/16/2013 1:54:00 PM
END DATE/TIME: 9/18/2013 1:40:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Fine SAND to SILTY SAND, poorly graded, brownish yellow, two gray clay seams approximately 1/8" thick, wet, loose.						47.5-50.0 ft.: (CL), SILTY CLAY, some fine to coarse sand, dark brown, moist, stiff to very stiff.		
	CLAYEY SILT, trace subangular to subrounded gravel, yellowish brown to gray, wet, very stiff.		6	Sonic	0	20 / 20	Collected ATL sample 47.9-48.5 ft 50.0-50.9 ft.: (SP-SM), fine SAND to SILTY SAND, poorly graded, brownish yellow, two gray clay seams approximately 1/8" thick, wet, loose.		
	Fine SILTY SAND, poorly graded, brown, wet, loose.						50.9-52.7 ft.: (CL/MH), CLAYEY SILT, trace subangular to subrounded gravel, yellowish brown to gray, wet, very stiff.		
995.0							52.7-54.5 ft.: (SM), fine SILTY SAND, poorly graded, brown, with 1/16" gray clay stringers, loose.		
	SANDY SILTY CLAY, fine to coarse, trace rounded to subrounded fine gravel, brown to gray, moist, very stiff.						54.5-55.4 ft.: (CL), sandy SILTY CLAY, trace subrounded gravel, brown to gray, dry, stiff to very stiff.		
							55.4-55.5 ft.: (SM), SILTY SAND, poorly graded, brown, wet, loose. 55.5-67.0 ft.: (CL), SANDY SILTY CLAY, fine to coarse, trace rounded to subrounded fine gravel, brown to gray, moist, very stiff.		
990.0							Collected ATL sample 59.7-60.2 ft		
			7	Sonic	0	12.5 / 12			62.0-64.5 ft.: 1/2 bag of bentonite chips.
985.0									64.5-73.0 ft.: 4 bags of #40 Red Flint Sand (50#/bag)
							67.0-70.0 ft.: (CL), SANDY SILTY CLAY, fine to coarse, trace rounded to subrounded fine gravel, brown to gray, moist, very stiff.		67.0-72.0 ft.: 2" diameter, 0.01"-slotted PVC pipe.
980.0							70.0-72.2 ft.: (SM), fine SILTY SAND, poorly graded, brown, wet, loose. 72.2-73.0 ft.: (SM), fine SILTY SAND, poorly graded, brown, with thinly laminated orange to brown clay stringers, wet, loose.		
	Fine SILTY SAND, poorly graded, brown, wet, loose.		8	Sonic	0	6.8 / 6			
975.0									

LITHOLOGY LEGEND

USCS Silt (ML)
USCS Poorly-graded Sand with Silt (SP-SM)
USCS Low to High Plasticity Clay (CL-CH)
USCS Clayey Sand (SC-SM)
USCS Low Plasticity Clay (CL)
USCS Silty Gravel

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/24/2013
CHECKED BY: JSP
CHECKED BY DATE: 10/30/2013

Golder Associates

BOREHOLE LOG: MW-64

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 40
DEPTH OF SOIL DRILL: 40
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473101.32 E: 4685852.25
GROUND SURFACE ELEV.: 1051.88
DATUM: N/A
START DATE/TIME: 9/19/2013 1:15:00 PM
END DATE/TIME: 9/21/2013 10:25:00 AM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	Fine to coarse SAND and SILT, organics (corn field), light brown to beige, moist, loose.						0.0-1.7 ft.: (SM), fine to coarse SAND and SILT, organics (corn field), light brown to beige, moist, loose. 1.7-3.0 ft.: (ML), SILT, some sand, dark brown, dry, loose. 3.0-4.5 ft.: (ML), CLAYEY SILT, some fine to coarse subangular gravel, light brown with brown mottling, dry, stiff to very stiff. 4.5-5.0 ft.: (ML), CLAYEY SILT, some fine to coarse gravel (larger than previous sample), brown with beige mottling, dry, stiff to very stiff.		0.0-29.0 ft-bgs: Cement grout, 10-inch diameter borehole to 29 ft. Installed 6-inch diameter steel casing in a 10-inch diameter borehole to 29 ft bgs- grouted to surface and let set for >24 hours. Advanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 38 ft-bgs. Well has 2.41 ft of stickup with bumper posts around the well.
1050.0	SILT, some sand, dark brown, dry, loose.		1	Sonic	0	5 / 5			
	CLAYEY SILT, some fine to coarse gravel, brown with beige mottling, dry, stiff to very stiff.								
	SILTY CLAY, some fine to coarse rounded gravel, light brown with brown mottling, wet, soft.						5.0-14.7 ft.: (CL), SILTY CLAY, some fine to coarse rounded gravel (two bore hole sized pieces), light brown with brown mottling increasing with depth, wet, soft.		
1045.0					0				
			2	Sonic		9 / 9			
1040.0					0				
	SILTY CLAY and fine to coarse SAND, trace fine gravel, sub angular to sub rounded, gray with brown mottling, moist to wet, soft to stiff.						14.7-23.0 ft.: (CL), SILTY CLAY and fine to coarse SAND, trace fine gravel, sub angular to sub rounded, gray with brown mottling, wet, soft to firm.		
1035.0					0				
			3	Sonic		9 / 9			
1030.0					0				

LITHOLOGY LEGEND

USCS Silty Sand (SM)
USCS Low Plasticity Silty Clay (CL-ML)
USCS Silt (ML)
USCS Low Plasticity Clay (CL)

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/29/2013
CHECKED BY: JSP
CHECKED BY DATE: 11/4/2013

Golder Associates

BOREHOLE LOG: MW-64

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 40
DEPTH OF SOIL DRILL: 40
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473101.32 E: 4685852.25
GROUND SURFACE ELEV.: 1051.88
DATUM: N/A
START DATE/TIME: 9/19/2013 1:15:00 PM
END DATE/TIME: 9/21/2013 10:25:00 AM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0	SILTY CLAY and fine to coarse SAND, trace fine gravel, sub angular to sub rounded, gray with brown mottling, moist to wet, soft to stiff.		4	Sonic	0	6 / 6	23.0-25.0 ft.: (CL), SILTY CLAY and fine to coarse SAND, trace fine gravel, sub angular to sub rounded, gray with brown mottling, wet, soft to firm. 25.0-29.0 ft.: (CL), SILTY CLAY, some fine sub-angular to sub-rounded gravel, gray, dryer than above, stiff.		25.0-30.5 ft.: 1 bag of bentonite chips.
1020.0			5	Sonic	0	6 / 6	29.0-33.2 ft.: (ML), CLAYEY SILT, some fine to coarse SAND, trace subrounded fine gravel, gray, moist, stiff. 33.2-35.5 ft.: (ML), CLAYEY SILT and fine to coarse SAND, trace sub-rounded fine gravel, brown, moist, stiff to very stiff.		Installed 6-inch diameter steel casing to 29 ft bgs. 90 gallons of grout (30 gallons used), 9 bags Portland Type I/II Cement and 1/3 bag Quick-gel Bentonite Powder (7 bags, 94#/bag) with 30 gallons of water. 30.5-40.0 ft.: 4.5 bags of #40 Red Flint Sand (94#/bag) 33.0-38.0 ft.: 2" diameter, 0.01"-slotted PVC pipe.
	CLAYEY SILT and fine to coarse SAND, trace sub-rounded fine gravel, brown, moist, stiff to very stiff.								
1015.0	CLAYEY SILT, some fine to coarse sand, trace fine gravel, light brown, brown, gray and beige, wet, firm to very stiff.		6	Sonic	0	5 / 5	35.5-36.6 ft.: (ML-CL), CLAYEY SILT, some fine to coarse sand with light gray silty clay seams, brown to gray, wet, firm to stiff. 36.6-37.5 ft.: (ML-CL), CLAYEY SILT, some fine sub-rounded gravel, more gravel near bottom of sample, light brown to beige, moist, stiff. 37.5-40.0 ft.: (ML-CL), CLAYEY SILT to SILTY CLAY and fine to coarse sand, trace fine rounded gravel, moist, very stiff to hard.		
1010.0									
1005.0									

LITHOLOGY LEGEND

USCS Silty Sand (SM)
USCS Low Plasticity Silty Clay (CL-ML)
USCS Silt (ML)
USCS Low Plasticity Clay (CL)

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/29/2013
CHECKED BY: JSP
CHECKED BY DATE: 11/4/2013

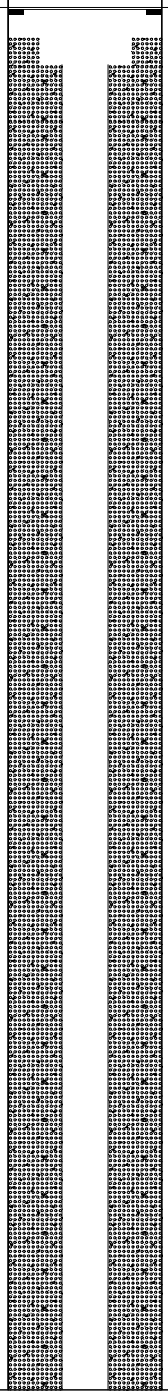
Golder Associates

BOREHOLE LOG: MW-65

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 74
DEPTH OF SOIL DRILL: 74
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473358.9 E: 4685730.21
GROUND SURFACE ELEV.: 1050.81
DATUM: N/A
START DATE/TIME: 9/16/2013 8:15:00 AM
END DATE/TIME: 9/20/2013 2:36:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0							Used 17.25" diameter tricone bit to drill to 29 ft (mud rotary).		8-inch steel flush mount casing. 0.5-1.0 ft.: Cement 0.0-29.0 ft-bgs: Cement grout, 17.25-inch diameter borehole to 29 ft set 12" diameter casing. 0.0-61.0 ft-bgs: Cement grout, 10-inch diameter borehole to 61 ft set 6" diameter casing. Installed 12-inch diameter steel casing in a 17.25-inch diameter borehole - grouted to surface and let set for >24 hours. Continued drilling with a 10-inch diameter borehole to 61 ft and installed 6-inch diameter steel casing - groutedto surface and let set for > 48 hours. Advanced 4-inch diameter boring through the steel casing and set a 2-inch PVC well to 73 ft-bgs.
1045.0									
1040.0									
							See lithology from MW-47D.		
1035.0									
1030.0									

LITHOLOGY LEGEND

- USCS Low Plasticity Clay (CL)
- USCS Silty Sand (SM)
- USCS Poorly-graded Sand with Silt (SP-SM)
- USCS Silt (ML)
- USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning/ T. Schmalelft

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/31/2013
CHECKED BY: JSP
CHECKED BY DATE: 11/4/2013

Golder Associates

BOREHOLE LOG: MW-65

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 74
DEPTH OF SOIL DRILL: 74
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473358.9 E: 4685730.21
GROUND SURFACE ELEV.: 1050.81
DATUM: N/A
START DATE/TIME: 9/16/2013 8:15:00 AM
END DATE/TIME: 9/20/2013 2:36:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1025.0									
1020.0	SILTY CLAY and fine to coarse SAND, some fine rounded gravel, gray, moist, stiff.						29.0-31.5 ft.: (CL), SILTY CLAY and fine to coarse SAND, some fine rounded gravel (baseball sized), gray, moist, stiff. 31.5-33.0 ft.: (SM), fine SILTY SAND, well graded, wet, loose to compact. 33.0-33.3 ft.: (GM/SM), SILTY GRAVEL and fine SAND, yellow-brown, wet, compact. 33.3-33.5 ft.: (SP/SM), fine SAND, poorly graded, some silt, yellow-brown, wet, loose. 33.5-34.8 ft.: (CL/ML), CLAYEY SILT, some fine to coarse sand, trace fine gravel, yellow-brown, odor, moist, very stiff. 34.8-35.0 ft.: (SM/GM), fine SILTY SAND and GRAVEL, sub-rounded, poorly graded, yellow-brown, odor, wet, loose.		0-29.0 ft.: Installed 12-inch diameter steel casing to 29 ft bgs. 75 gallons of grout, 95% Portland Type I/II Cement (7 bags, 94#/bag) and 5% Quick-gel Bentonite Powder with 30 gallons of water.
	Fine SILTY SAND, poorly graded, some silt, trace gravel, yellow-brown, wet, loose to compact		1	Sonic	0 13.6	6 / 6			
	CLAYEY SILT, some fine to coarse sand, trace fine gravel, yellow-brown, odor, moist, very stiff.				220.2				
1015.0	Fine SILTY SAND, poorly graded, yellow-brown with reddish-brown mottling, wet, loose.				399.6 706.1 469.8 132.1		35.0-44.5 ft.: (SM), fine SILTY SAND, poorly graded, yellow-brown with reddish-brown mottling, odor at approximately 36.5 ft, wet, loose. 44.5-45.0 ft.: (ML), CLAYEY SILT, trace fine sand, yellow-brown, odor, wet, loose to compact.		
			2	Sonic	393.4 314.6	10 / 10			
1010.0					108.8				
	CLAYEY SILT, trace fine sand, yellow-brown, odor, wet, loose to compact.						45.0-47.5 ft.: (SM), fine SILTY SAND, poorly graded, yellow-brown, odor, wet, loose. 47.5-49.2 ft.: (ML), CLAYEY SILT, some fine to coarse sand, brown, odor, wet, soft.		
1005.0	Fine SILTY SAND, poorly graded, yellow-brown, odor, wet, loose.				62.5				
	CLAYEY SILT, some fine to coarse sand, brown, odor, wet, soft.		3	Sonic	168.1 90.2	10 / 10			
					67.8				

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)
USCS Silty Sand (SM)
USCS Poorly-graded Sand with Silt (SP-SM)
USCS Silt (ML)
USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning/ T. Schmalelft

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/31/2013
CHECKED BY: JSP
CHECKED BY DATE: 11/4/2013

Golder Associates

BOREHOLE LOG: MW-65

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 74
DEPTH OF SOIL DRILL: 74
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473358.9 E: 4685730.21
GROUND SURFACE ELEV.: 1050.81
DATUM: N/A
START DATE/TIME: 9/16/2013 8:15:00 AM
END DATE/TIME: 9/20/2013 2:36:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1000.0	CLAYEY SILT to SILTY CLAY, trace fine angular to sub-angular gravel, brownish gray, moist to dry, very stiff to hard.						49.2-49.5 ft.: (CL/ML), CLAYEY SILT to SILTY CLAY and fine to coarse SAND, trace fine sub-angular to sub-rounded gravel, brown, odor, moist, very stiff.		
	Sandy SILTY CLAY, fine to coarse, trace fine sub-angular to sub-rounded gravel, dark gray to gray, moist to dry, very stiff to hard.				0		49.5-52.5 ft.: (CL), CLAYEY SILT to SILTY CLAY, trace fine angular to sub-angular gravel, brownish gray, dry, hard. 52.5-55.5 ft.: (CL), sandy SILTY CLAY, fine to coarse, some fine sub-angular gravel, dark gray, dry, hard.		
					0		Collected ATL sample 54.5-55 ft.		
995.0			4	Sonic	0	7.5 / 6	55.5-57.0 ft.: (CL), sandy SILTY CLAY, fine to coarse, some fine sub-angular gravel, gray, moist, very stiff to hard. 57.0-61.0 ft.: (CL), sandy SILTY CLAY, fine to coarse, some fine sub-angular to sub-rounded gravel, gray with black mottling at 58 ft bgs, moist, very stiff to hard.		
990.0									60.0-65.0 ft.: 1 bag of bentonite chips (50#/bag)
							61.0-70.9 ft.: (CL), sandy SILTY CLAY, fine to coarse, trace fine sub-angular to sub-rounded gravel, dark gray, very stiff to hard.		Cement grout, 10-inch diameter borehole to 61 ft set 6" diameter casing.
							Collected ATL sample 68-69 ft		
							70.9-71.6 ft.: (SP/SM), fine to coarse SILTY SAND, poorly graded, trace fine to coarse rounded gravel (quartz marble sized to green rounded rock approximately billiard sized ball), gray, wet, loose. 71.6-74.0 ft.: (CL), sandy SILTY CLAY, fine to coarse, some sub-rounded fine gravel, gray, dry to moist, very stiff.		65.0-74.0 ft.: 3.5 bags of #40 Red Flint Sand (94#/bag)
985.0			5	Sonic		13.7 / 13			68.0-73.0 ft.: 2" diameter, 0.01"-slotted PVC pipe.
					0				
980.0	Fine to coarse SILTY SAND, poorly graded, trace fine to coarse rounded gravel, gray, wet, loose.				0				
	Sandy SILTY CLAY, fine to coarse, some sub-rounded fine gravel, gray, dry to moist, very stiff.								

LITHOLOGY LEGEND

USCS Low Plasticity Clay (CL)
USCS Silty Sand (SM)
USCS Poorly-graded Sand with Silt (SP-SM)
USCS Silt (ML)
USCS Low Plasticity Silty Clay (CL-ML)

DRILLING COMPANY: Cascade Drilling
DRILLER: B. Beuning/ T. Schmalelft

GOLDER INSPECTOR: JSP

LOGGED BY: CJS
LOGGED BY DATE: 10/31/2013
CHECKED BY: JSP
CHECKED BY DATE: 11/4/2013

Golder Associates

BOREHOLE LOG: MW-66

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 65
DEPTH OF SOIL DRILL: 65
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473092.22 E: 4685848.075
GROUND SURFACE ELEV.: 1052.238
DATUM: N/A
START DATE/TIME: 10/21/2015 3:15:00 PM
END DATE/TIME: 10/23/2015 2:00:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1050.0	SILTY CLAY, some sand, trace gravel, brown/tan, moist, firm		S1	Sonic	0.0	2.5 / 5	0.0 - 2.0 ft: (ML) TOPSOIL, Organics and CLAYEY SILT, some sand, black, moist, firm 2.0 - 3.0 ft: (CL/ML) SILTY CLAY, some sand, trace gravel, dark brown, moist 3.0 - 5.0 ft: (CL/ML) SILTY CLAY, some sand, trace gravel, brown/tan, moist, firm		0.0 - 38.0 ft: Cement Grout - 2.5 ft of stick-up of the 6" steel protective casing 10-inch diameter borehole advanced to 29 ft and installed 6" diameter casing - grouted to surface and let set for 22 hours.
1045.0	SILTY CLAY, some fine to coarse sand, some gravel up to 1", subangular to subrounded, brown/light brown, soft to firm, moist, some orange mottling and organic streaks throughout		S2	Sonic	0.0 0.0	7 / 10	5.0 - 15.0 ft: (CL/ML) SILTY CLAY, some fine to coarse sand, some subangular to subrounded gravel up to 1", brown/light brown, soft to firm, moist, some orange mottling and organic streaks throughout		
1040.0									
1035.0			S3	Sonic	0.0	15 / 14	15.0 - 18.0 ft: (CL) SILTY CLAY, some fine to coarse sand, some subangular to subrounded gravel up to 1", brown/light brown, soft to firm, moist, some orange mottling and organic streaks throughout 18.0 - 20.0 ft: (CL) SILTY CLAY and fine to coarse SAND, trace gravel up to 1", grey with brown/orange mottling, soft to firm, wet 20.0 - 24.0 ft: (CL) SILTY CLAY and fine to coarse SAND, trace white and subangular gravel up to 1/2", gray, soft to firm, wet, no brown mottling, till 24.0 - 29.0 ft: (CL) SILTY CLAY and fine to coarse SAND, trace gravel, gray, firm to stiff, moist, till		
1030.0	SILTY CLAY and fine to coarse SAND, trace gravel, gray, firm to stiff, moist, till				0.0				

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)
USCS Poorly-graded Gravel (GP)
USCS Silt (ML)
USCS Silty Sand (SM)
USCS Poorly-graded Sand with Silt (SP-SM)
USCS Peat (PT)

DRILLING COMPANY: Cascade Drilling
DRILLER: A. Anderson

GOLDER INSPECTOR: ATK

LOGGED BY: CEM
LOGGED BY DATE: 11/23/2015
CHECKED BY: ATK
CHECKED BY DATE: 12/9/2015

Golder Associates

BOREHOLE LOG: MW-66

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 65
DEPTH OF SOIL DRILL: 65
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473092.22 E: 4685848.075
GROUND SURFACE ELEV.: 1052.238
DATUM: N/A
START DATE/TIME: 10/21/2015 3:15:00 PM
END DATE/TIME: 10/23/2015 2:00:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
			SAMPLE INFORMATION						
1025.0	SILTY CLAY and fine to coarse SAND, trace gravel, gray, firm to stiff, moist, till		S3	Sonic	0.0	15 / 14			
1020.0	CLAYEY SILT and fine to coarse SAND, trace subrounded gravel, brown with light gray streaks, stiff, moist		S4	Sonic	0.2	5 / 6	29.0 - 33.0 ft: (CL) SILTY CLAY and fine to coarse SAND, trace gravel, gray, firm to stiff, moist, till 33.0 - 35.0 ft: (ML) CLAYEY SILT and fine to coarse SAND, trace subrounded gravel, brown with light gray streaks, stiff, moist Fine to Medium SAND seams at 33.0, 34.2, and 35.0 ft bgs		At 29 ft bgs - 4-inch diameter boring advanced through the steel casing and installed a 2-inch PVC well to 55 ft. Total borehole depth is 65.0 ft with the borehole backfilled with bentonite chips from 60.0 - 65.0 ft.
1015.0	Fine SAND and SILT, brown, stiff, moist CLAYEY SILT and SAND, some gravel, light brown/tan, stiff, moist GRAVEL, up to 4 inches, subrounded, granitic, brown/tan, reddish quartz CLAYEY SILT and fine to coarse SAND, some gravel up to 1/2", light brown, stiff, moist, with brown/orange mottling in horizontal/subhorizontal seams of fine sand, sandier layers are ~4" at 39 ft and 40.5 ft		S5	Sonic	0.1	10 / 10	35.0 - 36.0 ft: (SP) fine SAND and SILT, brown, stiff, moist 36.0 - 37.5 ft: (ML) CLAYEY SILT and SAND, some gravel, light brown/tan, stiff, moist 37.5 - 37.8 ft: (GP) GRAVEL, up to 4 inches, subrounded, granitic, brown/tan, reddish quartz 37.8 - 41.0 ft: (ML) CLAYEY SILT and fine to coarse SAND, some gravel up to 1/2", light brown, stiff, moist, with brown/orange mottling (iron stains) in horizontal/subhorizontal seams of fine sand, sandier layers are ~4" at 39 ft and 40.5 ft 41.0 - 45.0 ft: (CL) SILTY CLAY, some sand, trace gravel, tan/light brown, very stiff/hard, moist/dry, some horizontal and vertical sand seams with orange mottling		38.0 - 42.5 ft: Bentonite Chips
1010.0	SILTY CLAY, some sand, trace gravel, tan/light brown, very stiff/hard, moist/dry, some horizontal and vertical sand seams with orange mottling				0.0				42.5 - 43.0 ft: Fine Sand - 0.5 bag used 43.0 - 60.0 ft: #40 Red Flint Sand - 4.5 bags used 45.0 - 55.0 ft: 2" diameter, 0.01" - slotted PVC pipe
1005.0	SILTY SAND (mostly fine sand), trace gravel, trace clay,		S6	Sonic	0.0	12 / 10			

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)
USCS Poorly-graded Gravel (GP)
USCS Silt (ML)
USCS Silty Sand (SM)
USCS Poorly-graded Sand with Silt (SP-SM)
USCS Peat (PT)

DRILLING COMPANY: Cascade Drilling
DRILLER: A. Anderson

GOLDER INSPECTOR: ATK

LOGGED BY: CEM
LOGGED BY DATE: 11/23/2015
CHECKED BY: ATK
CHECKED BY DATE: 12/9/2015

Golder Associates

BOREHOLE LOG: MW-66

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 65
DEPTH OF SOIL DRILL: 65
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3473092.22 E: 4685848.075
GROUND SURFACE ELEV.: 1052.238
DATUM: N/A
START DATE/TIME: 10/21/2015 3:15:00 PM
END DATE/TIME: 10/23/2015 2:00:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
	tan/brown, non-cohesive, moist, dense SILTY CLAY and SAND, some gravel, gray/brown with orange mottling, very stiff, moist Fine SILTY SAND, poor sorting, light brown, moist, compact CLAYEY SILT and fine to coarse SAND, trace gravel, light brown to gray with orange/brown mottling, very stiff, moist, occasional ~1/4" sand lenses SILTY SAND, trace clay, light brown, moist, compact		S6	Sonic	0.0	12 / 10	45.0 - 49.0 ft: (CL) SILTY CLAY, some sand, trace gravel, tan/light brown, hard, moist/dry, some horizontal and vertical sand seams with orange mottling 49.0 - 49.75 ft: (SM) SILTY SAND (mostly fine sand), trace gravel, trace clay, tan/brown, non-cohesive, moist, dense 49.75 - 51.25 ft: (CL) SILTY CLAY and SAND, some gravel, gray/brown with orange mottling, very stiff, moist 51.25 - 51.5 ft: (SM) fine SILTY SAND, poor sorting, light brown, moist, compact		43.0 - 60.0 ft: #40 Red Flint Sand - 4.5 bags used 45.0 - 55.0 ft: 2" diameter, 0.01" - slotted PVC pipe
1000.0									
	CLAYEY SILT and fine to coarse SAND, trace gravel, light brown to gray with orange/brown mottling, very stiff, moist, occasional ~1/4" sand lenses SILTY CLAY and fine to coarse SAND, trace gravel, trace to some organics (increasing with depth), gray-brown with orange/brown mottling, very stiff to soft, moist		S7	Sonic	0.0	12 / 10	51.5 - 54.25 ft: (ML) CLAYEY SILT and fine to coarse SAND, trace gravel, light brown to gray with orange/brown mottling, very stiff, moist, occasional ~1/4" sand lenses 54.25 - 54.5 ft: (SM) SILTY SAND, trace clay, light brown, moist, compact 54.5 - 55.0 ft: (ML) CLAYEY SILT and fine to coarse SAND, trace gravel, light brown to gray with orange/brown mottling, very stiff, moist, occasional ~1/4" sand lenses		
995.0									
	PEAT, ORGANICS and SILTY CLAY, some sand, black/dark brown, soft, wet SILTY CLAY, some sand, trace gravel, gray to dark gray, stiff, moist, trace organic streaks, black area at 64 ft bgs (weathered shale?)				0.0		55.0 - 57.5 ft: (CL) SILTY CLAY and fine to coarse SAND, trace gravel, gray-brown with orange/brown mottling, very stiff, moist 57.5 - 60.5 ft: (CL) SILTY CLAY, some fine to coarse sand, trace gravel, trace to some organics (increasing with depth), gray to dark brown and black organics, soft, moist 60.5 - 60.9 ft: (PT) PEAT, ORGANICS and SILTY CLAY, some sand, black/dark brown, soft, wet 60.9 - 65.0 ft: (CL) SILTY CLAY, some sand, trace gravel, gray to dark gray, stiff, moist, trace organic streaks, black area at 64 ft bgs (weathered shale?)		60.0 - 65.0 ft: Backfilled with Bentonite Chips - 1/2 of 50# bag used
990.0									
985.0									
980.0									

LITHOLOGY LEGEND

USCS Low Plasticity Silty Clay (CL-ML)
USCS Poorly-graded Gravel (GP)
USCS Silt (ML)
USCS Silty Sand (SM)
USCS Poorly-graded Sand with Silt (SP-SM)
USCS Peat (PT)

DRILLING COMPANY: Cascade Drilling
DRILLER: A. Anderson

GOLDER INSPECTOR: ATK

LOGGED BY: CEM
LOGGED BY DATE: 11/23/2015
CHECKED BY: ATK
CHECKED BY DATE: 12/9/2015

Golder Associates

BOREHOLE LOG: MW-67

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 105
DEPTH OF SOIL DRILL: 105
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3472943.527 E: 4685646.723
GROUND SURFACE ELEV.: 1055.084
DATUM: N/A
START DATE/TIME: 10/20/2015 9:35:00 AM
END DATE/TIME: 10/22/2015 6:20:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1055.0	TOPSOIL, ORGANICS, some sand, some silt, black to dark brown, moist 1.0 - 2.0 ft: (SW) fine to coarse SAND and SILT, trace gravel, dark brown, moist 2.0 - 4.0 ft: (SW) fine to coarse SAND, some silt, brown, moist, compact 4.0 - 5.0 ft: (SP) fine to medium SAND, trace silt, brown, moist to wet, loose		S1	Sonic	0.1	3.5 / 5	0.0 - 1.0 ft: TOPSOIL, ORGANICS, some sand, some silt, black to dark brown, moist 1.0 - 2.0 ft: (SW) fine to coarse SAND and SILT, trace gravel, dark brown, moist 2.0 - 4.0 ft: (SW) fine to coarse SAND, some silt, brown, moist, compact 4.0 - 5.0 ft: (SP) fine to medium SAND, trace silt, brown, moist to wet, loose		0.0 - 83.0 ft: Cement Grout - 2.5 ft of stick-up of the 6" steel protective casing 10-inch diameter borehole advanced to 80 ft and installed 6" diameter casing - grouted to surface and let set for 22 hours.
1050.0	fine to coarse SAND and SILT, trace gravel, dark brown, moist fine to coarse SAND, some silt, brown, moist, compact fine to medium SAND, trace silt, brown, moist to wet, loose fine to coarse SAND, trace silt, brown, wet fine to coarse SAND, trace subangular gravel up to 1/2", brown to orange, wet, loose fine to coarse SAND, trace silt, brown with tan mottling, loose		S2	Sonic	0.1	3 / 5	5.0 - 6.0 ft: (SW) fine to coarse SAND, trace silt, brown, wet 6.0 - 8.5 ft: (SW) fine to coarse SAND, trace subangular gravel up to 1/2", brown to orange, wet, loose, trace tan sand lenses at ~7.5 ft bgs 8.5 - 11.0 ft: (SW) fine to coarse SAND, trace silt, brown with tan mottling, loose		
1045.0	fine to coarse SAND, trace subangular gravel up to 1/4", brown, wet, loose		S3	Sonic	0.4	4 / 5	11.0 - 15.0 ft: (SW) fine to coarse SAND, trace subangular gravel up to 1/4", brown, wet, loose Fine to coarse orange sand lense @ 14 ft. bgs		
1040.0	SILTY CLAY and SAND, trace gravel, brown, firm, wet SILTY CLAY and fine to coarse SAND, trace white to brown subrounded gravel up to 1", dark gray, stiff, dry, till		S4	Sonic	0.4	7 / 7	15.0 - 16.0 ft: (CL-ML) SILTY CLAY and SAND, trace gravel, gray/brown, firm, wet 16.0 - 35.0 ft: (CL-ML) SILTY CLAY and fine to coarse SAND, trace white to brown subrounded gravel up to 1", dark gray, stiff, dry, till		
1035.0			S5	Sonic	0.3	5 / 5			

LITHOLOGY LEGEND

USCS Sandy Silt (MLS)
USCS Poorly-graded Sand (SP)

USCS Well-graded Sand with Silt (SW-SM)
USCS Low Plasticity Silty Clay (CL-ML)

USCS Well-graded Sand (SW)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Cascade Drilling
DRILLER: A. Anderson

GOLDER INSPECTOR: ATK

LOGGED BY: CEM
LOGGED BY DATE: 11/24/2015
CHECKED BY: ATK
CHECKED BY DATE: 12/9/2015

Golder Associates

BOREHOLE LOG: MW-67

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 105
DEPTH OF SOIL DRILL: 105
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3472943.527 E: 4685646.723
GROUND SURFACE ELEV.: 1055.084
DATUM: N/A
START DATE/TIME: 10/20/2015 9:35:00 AM
END DATE/TIME: 10/22/2015 6:20:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1030.0	SILTY CLAY and fine to coarse SAND, trace white to brown subrounded gravel up to 1", dark gray, stiff, dry, till		S5	Sonic		5 / 5			0.0 - 83.0 ft: Cement Grout - 2.5 ft of stick-up of the 6" steel protective casing 10-inch diameter borehole advanced to 80 ft and installed 6" diameter casing - grouted to surface and let set for 22 hours.
1025.0			S6	Sonic	0.2	8 / 8			
1020.0	SILTY CLAY, trace sand and gravel, dark gray transitioning to gray/olive at 40 ft bgs, stiff to very stiff		S7	Sonic	0.2	11.5 / 10	35.0 - 40.0 ft: (CL-ML) SILTY CLAY, trace sand and gravel, dark gray transitioning to gray/olive at 40 ft bgs, stiff to very stiff Clay expands during core barrel extrusion 40.0 - 42.0 ft: (CL-ML) SILTY CLAY fine to coarse SAND, trace gravel, olive to yellow-brown, moist, dense, till 42.0 - 43.0 ft: (SW) fine to coarse SAND, trace gravel up to 1/2", trace silt, yellow-brown, wet, loose 43.0 - 45.0 ft: (CL-ML) SILTY CLAY fine to coarse SAND, trace gravel, olive to yellow-brown, moist, dense, till 1" thick sand lense at 43.5 ft bgs		
1015.0	SILTY CLAY fine to coarse SAND, trace gravel, olive to yellow-brown, moist, dense, till								
	fine to coarse SAND, trace gravel up to 1/2", trace silt, yellow-brown, wet, loose				0.2				
	SILTY CLAY fine to coarse SAND, trace gravel, olive to yellow-brown, moist, dense, till								
1010.0	SILTY CLAY, some fine to coase SAND, trace subrounded/subangular gravel, gray/brown to orange oxidized layers with mottling, very stiff to hard, moist, till		S8	Sonic	0.7	11 / 10	45.0 - 58.0 ft: (CL-ML) SILTY CLAY, some fine to coase SAND, trace subrounded/subangular gravel, gray/brown to orange oxidized layers with mottling, very stiff to hard, moist, till		

LITHOLOGY LEGEND

USCS Sandy Silt (MLS)
USCS Poorly-graded Sand (SP)

USCS Well-graded Sand with Silt (SW-SM)
USCS Low Plasticity Silty Clay (CL-ML)

USCS Well-graded Sand (SW)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Cascade Drilling
DRILLER: A. Anderson

GOLDER INSPECTOR: ATK

LOGGED BY: CEM
LOGGED BY DATE: 11/24/2015
CHECKED BY: ATK
CHECKED BY DATE: 12/9/2015

Golder Associates

BOREHOLE LOG: MW-67

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 105
DEPTH OF SOIL DRILL: 105
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3472943.527 E: 4685646.723
GROUND SURFACE ELEV.: 1055.084
DATUM: N/A
START DATE/TIME: 10/20/2015 9:35:00 AM
END DATE/TIME: 10/22/2015 6:20:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
1005.0	SILTY CLAY, some fine to coase SAND, trace subrounded/subangular gravel, gray/brown to orange oxidized layers with mottling, very stiff to hard, moist, till		S8	Sonic	0.8	11 / 10			0.0 - 83.0 ft: Cement Grout - 2.5 ft of stick-up of the 6" steel protective casing 10-inch diameter borehole advanced to 80 ft and installed 6" diameter casing - grouted to surface and let set for 22 hours.
1000.0			S9	Sonic	0.5 0.3	10 / 10	58.0 - 60.0 ft: (CL-ML) SILTY CLAY, trace sand, trace gravel, trace organic streaks, gray to dark gray with orange/brown mottling, stiff, moist 60.0 - 64.5 ft: (CL-ML) SILTY CLAY, trace sand, trace gravel, gray to brown clay with brown mottling, very stiff, moist, till 64.5 - 65.0 ft: (CL-ML) SILTY CLAY and coarse SAND, trace white to tan gravel, gray, very stiff, moist		
	SILTY CLAY, trace sand, trace gravel, trace organic streaks, gray to dark gray with orange/brown mottling, stiff, moist, till								
995.0									
	SILTY CLAY and coarse SAND, trace white to tan gravel, gray, very stiff, moist								
990.0	SANDY SILTY CLAY, fine to coarse sand, trace gravel, gray to dark gray, very stiff to hard, moist		S10	Sonic	0.3	6 / 5	65.0 - 71.0 ft: (CLS) SANDY SILTY CLAY, fine to coarse sand, trace gravel, gray to dark gray, very stiff to hard, moist		
985.0	fine to coarse SAND and SILTY CLAY, ~1" layer of sand, softer SANDY SILTY CLAY, fine to coarse sand, trace gravel, gray, very stiff to hard		S11	Sonic		6 / 5			
	fine to medium SAND, some silt, gray/brown, wet, loose				0.2				

LITHOLOGY LEGEND

USCS Sandy Silt (MLS)
USCS Poorly-graded Sand (SP)
USCS Well-graded Sand with Silt (SW-SM)
USCS Low Plasticity Silty Clay (CL-ML)
USCS Well-graded Sand (SW)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Cascade Drilling
DRILLER: A. Anderson

GOLDER INSPECTOR: ATK

LOGGED BY: CEM
LOGGED BY DATE: 11/24/2015
CHECKED BY: ATK
CHECKED BY DATE: 12/9/2015

Golder Associates

BOREHOLE LOG: MW-67

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 105
DEPTH OF SOIL DRILL: 105
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3472943.527 E: 4685646.723
GROUND SURFACE ELEV.: 1055.084
DATUM: N/A
START DATE/TIME: 10/20/2015 9:35:00 AM
END DATE/TIME: 10/22/2015 6:20:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
980.0	SANDY SILTY CLAY, fine to coarse sand, trace subrounded to subangular gravel, gray to brown with mottling, very stiff, moist		S12	Sonic	0.3	6 / 5	71.0 - 71.1 ft: (SW-SC) fine to coarse SAND and SILTY CLAY, ~1" layer of sand, softer 71.1 - 73.5 ft: (CLS) SANDY SILTY CLAY, fine to coarse sand, trace gravel, gray, very stiff to hard 73.5 - 74.0 ft: (SP) fine to medium SAND, some silt, gray/brown, wet, loose 74.0 - 80.0 ft: (CLS) SANDY SILTY CLAY, fine to coarse sand, trace subrounded to subangular gravel, gray to brown with mottling, very stiff, moist		
975.0	SILTY CLAY and SAND, trace gravel, gray, soft, moist		S13	Sonic	0.2	3 / 5	80.0 - 81.5 ft: (CL-ML) SILTY CLAY and SAND, trace gravel, gray, soft, moist 81.5 - 84.5 ft: (GP) GRAVEL (possible boulder - hard drilling), angular pieces up to 4", gray granite/diorite composed of quartz, feldspar, and amphiboles, subangular to angular gravel between 1/4" to 2", some sand, light gray, dry (hot from drilling), loose 84.5 - 87.0 ft: (CL-ML) SILTY CLAY, some sand, trace gravel, dark brown with light brown/orange laminations/mottling along sandier layers, very stiff to hard, dry		At 80 ft bgs - 4-inch diameter boring advanced through the steel casing and installed a 2-inch PVC well to 97.0 ft. Total borehole depth is 105.0 ft. 83.0 - 85.0 ft: Bentonite Seal
	GRAVEL (possible boulder - hard drilling), angular pieces up to 4", gray granite/diorite composed of quartz, feldspar, and amphiboles, subangular to angular gravel between 1/4" to 2", some sand, light gray, dry (hot from drilling), loose								
970.0	SILTY CLAY, some sand, trace gravel, dark brown with light brown/orange laminations/mottling along sandier layers, very stiff to hard, dry		S14	Sonic	0.3	9 / 10	87.0 - 87.5 ft: (CL-ML) CLAYEY SILT, some fine sand, vertical orange mottling, light brown with some black streaks, very stiff, dry 87.5 - 89.5 ft: (CL-ML) CLAYEY SILT and fine SAND, orange mottling, stiff, non-plastic, dry 89.5 - 90.5 ft: (SP-SM) fine SAND and SILT, some silt, orange brown and black layering, 2" thick orange/brown layer, black fine sand below 90.5 - 90.75 ft: (SP-SM) fine SAND and SILT, light gray/tan, some black streaks 90.75 - 91.0 ft: (SP) fine to coarse SAND, tan/light brown, moist, loose 91.0 - 91.25 ft: (SP) fine SAND, some silt, tan/gray, compact, moist 91.25 - 96.5 ft: (SW) fine to coarse SAND with the mode being medium sand, slightly coarser with depth, trace gravel up to 1/2", trace silt, light brown, wet, loose		85.0 - 85.5 ft: Fine Sand 85.5 - 105.0 ft: #40 Red Flint Filter Sand 87.0 - 97.0 ft: 2" diameter, 0.01"-slotted PVC pipe.
	CLAYEY SILT, some fine sand, vertical orange mottling, light brown with some black streaks, very stiff, dry								
965.0	fine SAND and SILT, some silt, orange brown and black layering, 2" thick orange/brown layer, black fine sand below								
	fine to coarse SAND, tan/light brown, moist, loose								
	fine SAND, some silt, tan/gray, compact, moist				0.2				
	fine to coarse SAND with the mode being medium sand, slightly coarser with depth, trace gravel up to 1/2", trace silt, light brown, wet, loose				0.2				
960.0					0.2				
	SAND and elongate subangular GRAVEL up to 3", dark brown, wet, loose		S15	Sonic	0.1	10 / 10			
	SILTY CLAY, some sand, trace gravel, gray/brown with abundant orange/brown mottling, some pockets of tan silt/sand (weathered sandstone gravel?), very stiff, moist, till								

LITHOLOGY LEGEND

- USCS Sandy Silt (MLS)
- USCS Poorly-graded Sand (SP)
- USCS Well-graded Sand with Silt (SW-SM)
- USCS Low Plasticity Silty Clay (CL-ML)
- USCS Well-graded Sand (SW)
- USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Cascade Drilling
DRILLER: A. Anderson

GOLDER INSPECTOR: ATK

LOGGED BY: CEM
LOGGED BY DATE: 11/24/2015
CHECKED BY: ATK
CHECKED BY DATE: 12/9/2015

Golder Associates

BOREHOLE LOG: MW-67

PROJECT: Electrolux Jefferson
PROJECT NO.: 103-87305
HOLE DEPTH: 105
DEPTH OF SOIL DRILL: 105
DEPTH OF ROCK CORE:
AZIMUTH: N/A PLUNGE:-90

BOREHOLE LOCATION: Jefferson, IA
COORDINATES: N: 3472943.527 E: 4685646.723
GROUND SURFACE ELEV.: 1055.084
DATUM: N/A
START DATE/TIME: 10/20/2015 9:35:00 AM
END DATE/TIME: 10/22/2015 6:20:00 PM

DRILLING METHOD: Roto-Sonic
CORING METHOD: N/A
DRILL RIG: GP24-300RS

Depth Elev.	LITHOLOGY DESCRIPTION	Graphical Log	SAMPLE INFORMATION: Sample No. Or Run No.	Type	PID (ppm)	Soil Rec./Att. Or Core Rec. %	Soil Sample Description Or Discontinuity Data (Depth, Dip, Angle From Core Axis, Type, and Surface Description)	Well Graphic	Well Construction Information
955.0	SILTY CLAY, some sand, trace gravel, gray/brown with abundant orange/brown mottling, some pockets of tan silt/sand (weathered sandstone gravel?), very stiff, moist, till		S15	Sonic	0.1	10 / 10	96.5 - 97.0 ft: (SWG) SAND and elongate subangular GRAVEL up to 3", dark brown, wet, loose 97.0 - 99.0 ft: (CL-ML) SILTY CLAY, some sand, trace gravel, gray/brown with abundant orange/brown mottling, some pockets of tan silt/sand (weathered sandstone gravel?), very stiff, moist, till 99.0 - 105.0 ft: (CL-ML) SILTY CLAY, some sand, trace gravel, up to 2" pockets of tan fine sand (not layered - weathered sandstone gravel?), dark gray, very stiff, dry End of Boring at 105.0 ft bgs		
950.0									
945.0									
940.0									
935.0									

LITHOLOGY LEGEND

USCS Sandy Silt (MLS)
USCS Poorly-graded Sand (SP)
USCS Well-graded Sand with Silt (SW-SM)
USCS Low Plasticity Silty Clay (CL-ML)
USCS Well-graded Sand (SW)
USCS Low Plasticity Sandy Clay (CLS)

DRILLING COMPANY: Cascade Drilling
DRILLER: A. Anderson

GOLDER INSPECTOR: ATK

LOGGED BY: CEM
LOGGED BY DATE: 11/24/2015
CHECKED BY: ATK
CHECKED BY DATE: 12/9/2015

Golder Associates

APPENDIX E
SOIL ANALYTICAL REPORTS

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

May 05, 2011

Client:
GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101

Attn: James Peace

Work Order: CUD0086
Project Name: Electrolux Jefferson, IA
Project Number: 103-87305

Date Received: 04/01/11

The Chain(s) of Custody, 12 pages, are included and are an integral part of this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
MW-10 2.5-5	CUD0086-01	03/29/11 09:30
MW-11 2.5-5	CUD0086-02	03/29/11 11:40
MW-12 1-5	CUD0086-03	03/29/11 13:20
MW-13 2.5-5	CUD0086-04	03/29/11 14:30
MW-14 2.5-5	CUD0086-05	03/29/11 15:40
MW-15 0-2.5	CUD0086-06	03/29/11 16:55
MW-15 2.5-5	CUD0086-07	03/29/11 17:00
MW-15 5-7.5	CUD0086-08	03/29/11 17:20
MW-15 7.5-10	CUD0086-09	03/29/11 17:25
MW-15 10-13	CUD0086-10	03/29/11 17:35
MW-16 0-2.5	CUD0086-11	03/30/11 08:50
MW-16 2.5-5	CUD0086-12	03/30/11 09:00
MW-16 5-7.5	CUD0086-13	03/29/11 09:10
MW-16 7.5-10	CUD0086-14	03/30/11 09:20
MW-16 10-13	CUD0086-15	03/30/11 09:30
MW-17 0-2.5	CUD0086-16	03/30/11 10:05
MW-17 2.5-5	CUD0086-17	03/30/11 10:15
MW-17 5-7.5	CUD0086-18	03/30/11 10:20
MW-17 7.5-10	CUD0086-19	03/30/11 10:25
MW-17 10-13	CUD0086-20	03/30/11 10:30
MW-18 0-2.5	CUD0086-21	03/30/11 11:30
MW-18 2.5-5	CUD0086-22	03/30/11 11:35
MW-18 5-7.5	CUD0086-23	03/30/11 11:45
MW-18 7.5-10	CUD0086-24	03/30/11 11:50
MW-18 10-12	CUD0086-25	03/30/11 12:00
MW-19 0-2.5	CUD0086-26	03/30/11 13:10

TestAmerica Cedar Falls
Derrick Klinkenberg
Organics Manager

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
MW-19 2.5-5	CUD0086-27	03/30/11 13:20
MW-19 5-10	CUD0086-28	03/30/11 13:25
MW-19 10-12	CUD0086-29	03/30/11 13:35
MW-20 0-2.5	CUD0086-30	03/30/11 14:15
MW-20 2.5-5	CUD0086-31	03/30/11 14:25
MW-20 5-7.5	CUD0086-32	03/30/11 14:35
MW-20 7.5-10	CUD0086-33	03/30/11 14:40
MW-21A 0-2.5	CUD0086-34	03/30/11 15:30
MW-21A 2.5-5	CUD0086-35	03/30/11 15:40
MW-21A 5-7.5	CUD0086-36	03/30/11 15:45
MW-21A 7.5-10	CUD0086-37	03/30/11 15:50
MW-21 0-2.5	CUD0086-38	03/30/11 16:15
MW-21 2.5-5	CUD0086-39	03/30/11 16:20
MW-21 5-10	CUD0086-40	03/30/11 16:30
MW-21 10-12	CUD0086-41	03/30/11 16:35
MW-22 0-2.5	CUD0086-42	03/30/11 17:20
MW-22 2.5-5	CUD0086-43	03/30/11 17:25
MW-22 5-10	CUD0086-44	03/30/11 17:35
MW-22 10-12	CUD0086-45	03/30/11 17:40
MW-23 0-2.5	CUD0086-46	03/30/11 18:15
MW-23 2.5-5	CUD0086-47	03/30/11 18:20
MW-23 5-7.5	CUD0086-48	03/30/11 18:30
MW-23 7.5-10	CUD0086-49	03/30/11 18:35
MW-23 10-12	CUD0086-50	03/30/11 18:40
Trip Blank (L-H)	CUD0086-51	03/29/11
Trip Blank (L-6)	CUD0086-52	03/30/11

SW 9071 A analysis performed at TestAmerica Chicago - Lab ID: 82

Case Narrative: This report was amended to include OA-1 TPH as Gasoline results for TA Sample ID CUD0086-47. DK 05/05/11

Samples were received into laboratory on ice.

NELAC states that samples which require thermal preservation shall be considered acceptable if the arrival temperature is within 2 degrees C of the required temperature or the method specified range. For samples with a temperature requirement of 4 degrees C, an arrival temperature from 0 degrees C to 6 degrees C meets specifications. Samples that are delivered to the laboratory on the same day that they are collected may not meet these criteria. In these cases, the samples are considered acceptable if there is evidence that the chilling process has begun, such as arrival on ice.

Please refer to the Temperature and Sample Receipt form that is included with this report for additional information regarding the condition of samples at the time of receipt by the laboratory.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

GOLDER ASSOCIATES - MANCHESTER, NH 670 North Commercial Street, Suite 103 Manchester, NH 03101 James Peace	Work Order: CUD0086 Project: Electrolux Jefferson, IA Project Number: 103-87305	Received: 04/01/11 Reported: 05/05/11 08:34	

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TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific sample analyzed.

Approved By:

TestAmerica Cedar Falls
Derrick Klinkenberg
Organics Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-01 (MW-10 2.5-5 - Soil)					**Sampled: 03/29/11 09:30**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**85.1**		%	0.100	1	04/05/11 14:26	sas	11D0154	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**7.32**		mg/kg dry	1.18	0.94	04/11/11 18:21	sns	11D0137	SW 7060A
Barium	**92.3**		mg/kg dry	0.528	0.898	04/12/11 13:29	cjt	11D0252	SW 6010B
Cadmium	<1.06		mg/kg dry	1.06	0.898	04/12/11 13:29	cjt	11D0252	SW 6010B
Chromium	**15.7**		mg/kg dry	1.06	0.898	04/12/11 13:29	cjt	11D0252	SW 6010B
Lead	**8.44**		mg/kg dry	5.28	0.898	04/12/11 13:29	cjt	11D0252	SW 6010B
Mercury	<0.0235		mg/kg dry	0.0235	0.92	04/06/11 12:16	kmd	11D0189	SW 7471A
Selenium	<7.92		mg/kg dry	7.92	0.898	04/12/11 13:29	cjt	11D0252	SW 6010B
Silver	<1.06		mg/kg dry	1.06	0.898	04/12/11 13:29	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<48.4	L1	ug/kg dry	48.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Acrylonitrile	<48.4		ug/kg dry	48.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Benzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Bromobenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Bromochloromethane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Bromoform	<9.68		ug/kg dry	9.68	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Bromomethane	<19.4	L	ug/kg dry	19.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<48.4		ug/kg dry	48.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Carbon disulfide	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Chlorobenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Chloroethane	<19.4		ug/kg dry	19.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Chloroform	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Chloromethane	<19.4	CIN	ug/kg dry	19.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<48.4		ug/kg dry	48.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<48.4		ug/kg dry	48.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Dibromomethane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<14.5		ug/kg dry	14.5	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-01 (MW-10 2.5-5 - Soil) - cont.					**Sampled: 03/29/11 09:30**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
cis-1,2-Dichloroethene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<19.4		ug/kg dry	19.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Ethylbenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<24.2		ug/kg dry	24.2	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Hexane	<24.2	ICV	ug/kg dry	24.2	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Methylene Chloride	<48.4		ug/kg dry	48.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Naphthalene	<24.2		ug/kg dry	24.2	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Styrene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Toluene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<24.2		ug/kg dry	24.2	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<24.2		ug/kg dry	24.2	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Trichloroethene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<19.4		ug/kg dry	19.4	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.84		ug/kg dry	4.84	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Vinyl chloride	<14.5		ug/kg dry	14.5	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Xylenes, total	<14.5		ug/kg dry	14.5	0.824	04/07/11 15:39	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*102 %*								
Surr: Toluene-d8 (80-120%)	*102 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	240	04/06/11 20:30	cmm	11D0258	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 01:37	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.972	04/06/11 01:37	jdb	11D0059	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.972	04/06/11 01:37	jdb	11D0059	OA-2 - 8015B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
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Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-01 (MW-10 2.5-5 - Soil) - cont.					**Sampled: 03/29/11 09:30**		**Recvd: 04/01/11 09:31**		
UST ANALYSIS PARAMETERS - cont.									
Motor Oil	<10.0		mg/kg	10.0	0.972	04/06/11 01:37	jdb	11D0059	OA-2 - 8015B
Surr: Octacosane (50-150%)	*92 %*								
HEM									
HEM (Oil & Grease)	**170**	J	mg/Kg dry	570	1	04/07/11 08:26	MTB	109597	9071B OG Dry
Sample ID: CUD0086-02 (MW-11 2.5-5 - Soil)					**Sampled: 03/29/11 11:40**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**85.8**		%	0.100	1	04/05/11 14:26	sas	11D0154	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.23**	R	mg/kg dry	1.17	0.96	04/11/11 18:34	sns	11D0137	SW 7060A
Barium	**90.1**		mg/kg dry	1.75	2.92	04/12/11 14:08	cjt	11D0252	SW 6010B
Cadmium	<3.50	IE	mg/kg dry	3.50	2.92	04/12/11 14:08	cjt	11D0252	SW 6010B
Chromium	**16.4**		mg/kg dry	3.50	2.92	04/12/11 14:08	cjt	11D0252	SW 6010B
Lead	<17.5	IE	mg/kg dry	17.5	2.92	04/12/11 14:08	cjt	11D0252	SW 6010B
Mercury	<0.0233		mg/kg dry	0.0233	0.988	04/06/11 12:18	kmd	11D0189	SW 7471A
Selenium	<26.2	IE	mg/kg dry	26.2	2.92	04/12/11 14:08	cjt	11D0252	SW 6010B
Silver	<3.50	IE	mg/kg dry	3.50	2.92	04/12/11 14:08	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<44.6	L1	ug/kg dry	44.6	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Acrylonitrile	<44.6		ug/kg dry	44.6	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Benzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Bromobenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Bromochloromethane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Bromoform	<8.91		ug/kg dry	8.91	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Bromomethane	<17.8	L	ug/kg dry	17.8	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<44.6		ug/kg dry	44.6	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Carbon disulfide	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Chlorobenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Chloroethane	<17.8		ug/kg dry	17.8	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Chloroform	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Chloromethane	<17.8	CIN	ug/kg dry	17.8	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<44.6		ug/kg dry	44.6	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<44.6		ug/kg dry	44.6	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Dibromomethane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-02 (MW-11 2.5-5 - Soil) - cont.					**Sampled: 03/29/11 11:40**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
1,3-Dichlorobenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<13.4		ug/kg dry	13.4	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<17.8		ug/kg dry	17.8	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Ethylbenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<22.3		ug/kg dry	22.3	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Hexane	<22.3	ICV	ug/kg dry	22.3	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Methylene Chloride	<44.6		ug/kg dry	44.6	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Naphthalene	<22.3		ug/kg dry	22.3	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Styrene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Toluene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<22.3		ug/kg dry	22.3	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<22.3		ug/kg dry	22.3	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Trichloroethene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<17.8		ug/kg dry	17.8	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.46		ug/kg dry	4.46	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Vinyl chloride	<13.4		ug/kg dry	13.4	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Xylenes, total	<13.4		ug/kg dry	13.4	0.765	04/07/11 16:02	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*106 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*99 %*								

TestAmerica Cedar Falls
Derrick Klinkenberg
Organics Manager

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-02 (MW-11 2.5-5 - Soil) - cont.					**Sampled: 03/29/11 11:40**		**Recvd: 04/01/11 09:31**		
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	241	04/06/11 21:05	cmm	11D0258	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 02:21	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.976	04/06/11 02:21	jdb	11D0059	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.976	04/06/11 02:21	jdb	11D0059	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.976	04/06/11 02:21	jdb	11D0059	OA-2 - 8015B
Surr: Octacosane (50-150%)	*99 %*								
HEM									
HEM (Oil & Grease)	**150**	J	mg/Kg dry	580	1	04/07/11 08:35	MTB	109597	9071B OG Dry
Sample ID: CUD0086-03 (MW-12 1-5 - Soil)					**Sampled: 03/29/11 13:20**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**78.5**		%	0.100	1	04/05/11 14:26	sas	11D0154	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.27**		mg/kg dry	1.27	0.968	04/11/11 18:40	sns	11D0137	SW 7060A
Barium	**56.8**		mg/kg dry	0.578	0.908	04/12/11 13:54	cjt	11D0252	SW 6010B
Cadmium	<1.16		mg/kg dry	1.16	0.908	04/12/11 13:54	cjt	11D0252	SW 6010B
Chromium	**10.5**		mg/kg dry	1.16	0.908	04/12/11 13:54	cjt	11D0252	SW 6010B
Lead	**7.52**		mg/kg dry	5.78	0.908	04/12/11 13:54	cjt	11D0252	SW 6010B
Mercury	<0.0255		mg/kg dry	0.0255	0.939	04/06/11 12:19	kmd	11D0189	SW 7471A
Selenium	<8.67		mg/kg dry	8.67	0.908	04/12/11 13:54	cjt	11D0252	SW 6010B
Silver	<1.16		mg/kg dry	1.16	0.908	04/12/11 13:54	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<57.0	L1	ug/kg dry	57.0	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Acrylonitrile	<57.0		ug/kg dry	57.0	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Benzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Bromobenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Bromochloromethane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Bromodichloromethane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Bromoform	<11.4		ug/kg dry	11.4	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Bromomethane	<22.8	L	ug/kg dry	22.8	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<57.0		ug/kg dry	57.0	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
n-Butylbenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
sec-Butylbenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
tert-Butylbenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Carbon disulfide	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Chlorobenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Chlorodibromomethane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Chloroethane	<22.8		ug/kg dry	22.8	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Chloroform	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Chloromethane	<22.8	CIN	ug/kg dry	22.8	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
2-Chlorotoluene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-03 (MW-12 1-5 - Soil) - cont.					**Sampled: 03/29/11 13:20**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
4-Chlorotoluene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<57.0		ug/kg dry	57.0	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<57.0		ug/kg dry	57.0	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Dibromomethane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<17.1		ug/kg dry	17.1	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<22.8		ug/kg dry	22.8	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Ethylbenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<28.5		ug/kg dry	28.5	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Hexane	<28.5	ICV	ug/kg dry	28.5	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Isopropylbenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Methylene Chloride	<57.0		ug/kg dry	57.0	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Naphthalene	<28.5		ug/kg dry	28.5	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
n-Propylbenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Styrene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Tetrachloroethene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Toluene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<28.5		ug/kg dry	28.5	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<28.5		ug/kg dry	28.5	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Trichloroethene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<22.8		ug/kg dry	22.8	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<5.70		ug/kg dry	5.70	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-03 (MW-12 1-5 - Soil) - cont.					**Sampled: 03/29/11 13:20**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Vinyl chloride	<17.1		ug/kg dry	17.1	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Xylenes, total	<17.1		ug/kg dry	17.1	0.895	04/07/11 16:25	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*106 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	231	04/06/11 21:40	cmm	11D0258	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 03:04	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.988	04/06/11 03:04	jdb	11D0059	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.988	04/06/11 03:04	jdb	11D0059	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.988	04/06/11 03:04	jdb	11D0059	OA-2 - 8015B
Surr: Octacosane (50-150%)	*92 %*								
HEM									
HEM (Oil & Grease)	**160**	J	mg/Kg dry	630	1	04/07/11 08:38	MTB	109597	9071B OG Dry
Sample ID: CUD0086-04 (MW-13 2.5-5 - Soil)					**Sampled: 03/29/11 14:30**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**85.9**		%	0.100	1	04/05/11 14:26	sas	11D0154	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.18**		mg/kg dry	1.16	0.989	04/11/11 18:43	sns	11D0137	SW 7060A
Barium	**56.2**		mg/kg dry	0.582	0.927	04/12/11 13:59	cjt	11D0252	SW 6010B
Cadmium	<1.16		mg/kg dry	1.16	0.927	04/12/11 13:59	cjt	11D0252	SW 6010B
Chromium	**13.5**		mg/kg dry	1.16	0.927	04/12/11 13:59	cjt	11D0252	SW 6010B
Lead	**7.11**		mg/kg dry	5.82	0.927	04/12/11 13:59	cjt	11D0252	SW 6010B
Mercury	<0.0202		mg/kg dry	0.0202	0.87	04/06/11 12:21	kmd	11D0189	SW 7471A
Selenium	<8.73		mg/kg dry	8.73	0.927	04/12/11 13:59	cjt	11D0252	SW 6010B
Silver	<1.16		mg/kg dry	1.16	0.927	04/12/11 13:59	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<44.4	L1	ug/kg dry	44.4	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Acrylonitrile	<44.4		ug/kg dry	44.4	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Benzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Bromobenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Bromochloromethane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Bromoform	<8.87		ug/kg dry	8.87	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Bromomethane	<17.7	L	ug/kg dry	17.7	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<44.4		ug/kg dry	44.4	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Carbon disulfide	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-04 (MW-13 2.5-5 - Soil) - cont.					**Sampled: 03/29/11 14:30**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
Chlorobenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Chloroethane	<17.7		ug/kg dry	17.7	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Chloroform	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Chloromethane	<17.7	CIN	ug/kg dry	17.7	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<44.4		ug/kg dry	44.4	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<44.4		ug/kg dry	44.4	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Dibromomethane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<13.3		ug/kg dry	13.3	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<17.7		ug/kg dry	17.7	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Ethylbenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<22.2		ug/kg dry	22.2	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Hexane	<22.2	ICV	ug/kg dry	22.2	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Methylene Chloride	<44.4		ug/kg dry	44.4	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Naphthalene	<22.2		ug/kg dry	22.2	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Styrene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Toluene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<22.2		ug/kg dry	22.2	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<22.2		ug/kg dry	22.2	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-04 (MW-13 2.5-5 - Soil) - cont.					**Sampled: 03/29/11 14:30**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2-Trichloroethane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Trichloroethene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<17.7		ug/kg dry	17.7	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.44		ug/kg dry	4.44	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Vinyl chloride	<13.3		ug/kg dry	13.3	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Xylenes, total	<13.3		ug/kg dry	13.3	0.762	04/07/11 16:48	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*103 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*98 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	232	04/06/11 22:16	cmm	11D0258	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 03:48	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.992	04/06/11 03:48	jdb	11D0059	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.992	04/06/11 03:48	jdb	11D0059	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.992	04/06/11 03:48	jdb	11D0059	OA-2 - 8015B
Surr: Octacosane (50-150%)	*94 %*								
HEM									
HEM (Oil & Grease)	**150**	J	mg/Kg dry	580	1	04/07/11 08:41	MTB	109597	9071B OG Dry
Sample ID: CUD0086-05 (MW-14 2.5-5 - Soil)					**Sampled: 03/29/11 15:40**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**87.0**		%	0.100	1	04/05/11 14:26	sas	11D0154	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.26**		mg/kg dry	1.15	0.959	04/11/11 18:47	sns	11D0137	SW 7060A
Barium	**91.7**		mg/kg dry	0.575	0.974	04/12/11 14:28	cjt	11D0252	SW 6010B
Cadmium	<1.15		mg/kg dry	1.15	0.974	04/12/11 14:28	cjt	11D0252	SW 6010B
Chromium	**15.6**		mg/kg dry	1.15	0.974	04/12/11 14:28	cjt	11D0252	SW 6010B
Lead	**8.42**		mg/kg dry	5.75	0.974	04/12/11 14:28	cjt	11D0252	SW 6010B
Mercury	<0.0230		mg/kg dry	0.0230	0.923	04/06/11 12:23	kmd	11D0189	SW 7471A
Selenium	<8.62		mg/kg dry	8.62	0.974	04/12/11 14:28	cjt	11D0252	SW 6010B
Silver	<1.15		mg/kg dry	1.15	0.974	04/12/11 14:28	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<47.8	L1	ug/kg dry	47.8	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Acrylonitrile	<47.8		ug/kg dry	47.8	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Benzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Bromobenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Bromochloromethane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Bromoform	<9.56		ug/kg dry	9.56	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Bromomethane	<19.1	L	ug/kg dry	19.1	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-05 (MW-14 2.5-5 - Soil) - cont.					**Sampled: 03/29/11 15:40**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
2-Butanone (MEK)	<47.8		ug/kg dry	47.8	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Carbon disulfide	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Chlorobenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Chloroethane	<19.1		ug/kg dry	19.1	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Chloroform	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Chloromethane	<19.1	CIN	ug/kg dry	19.1	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<47.8		ug/kg dry	47.8	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<47.8		ug/kg dry	47.8	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Dibromomethane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<14.3		ug/kg dry	14.3	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<19.1		ug/kg dry	19.1	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Ethylbenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<23.9		ug/kg dry	23.9	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Hexane	<23.9	ICV	ug/kg dry	23.9	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Methylene Chloride	<47.8		ug/kg dry	47.8	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Naphthalene	<23.9		ug/kg dry	23.9	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Styrene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
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Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-05 (MW-14 2.5-5 - Soil) - cont.					**Sampled: 03/29/11 15:40**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2,2-Tetrachloroethane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Toluene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<23.9		ug/kg dry	23.9	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<23.9		ug/kg dry	23.9	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Trichloroethene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<19.1		ug/kg dry	19.1	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.78		ug/kg dry	4.78	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Vinyl chloride	<14.3		ug/kg dry	14.3	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Xylenes, total	<14.3		ug/kg dry	14.3	0.831	04/07/11 17:11	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*101 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*98 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	238	04/06/11 22:51	cmm	11D0258	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 04:31	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.975	04/06/11 04:31	jdb	11D0059	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.975	04/06/11 04:31	jdb	11D0059	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.975	04/06/11 04:31	jdb	11D0059	OA-2 - 8015B
Surr: Octacosane (50-150%)	*92 %*								
HEM									
HEM (Oil & Grease)	**140**	J	mg/Kg dry	530	1	04/07/11 08:45	MTB	109597	9071B OG Dry
Sample ID: CUD0086-06 (MW-15 0-2.5 - Soil)					**Sampled: 03/29/11 16:55**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**81.2**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.48**		mg/kg dry	1.23	0.967	04/11/11 18:50	sns	11D0137	SW 7060A
Barium	**177**		mg/kg dry	0.616	0.935	04/12/11 14:33	cjt	11D0252	SW 6010B
Cadmium	<1.23		mg/kg dry	1.23	0.935	04/12/11 14:33	cjt	11D0252	SW 6010B
Chromium	**21.4**		mg/kg dry	1.23	0.935	04/12/11 14:33	cjt	11D0252	SW 6010B
Lead	**31.2**		mg/kg dry	6.16	0.935	04/12/11 14:33	cjt	11D0252	SW 6010B
Mercury	<0.0246		mg/kg dry	0.0246	1	04/06/11 12:25	kmd	11D0189	SW 7471A
Selenium	<9.24		mg/kg dry	9.24	0.935	04/12/11 14:33	cjt	11D0252	SW 6010B
Silver	<1.23		mg/kg dry	1.23	0.935	04/12/11 14:33	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	**54.3**	L1	ug/kg dry	51.4	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Acrylonitrile	<51.4		ug/kg dry	51.4	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Sample ID: CUD0086-06 (MW-15 0-2.5 - Soil) - cont. **Sampled: 03/29/11 16:55** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Benzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Bromobenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Bromochloromethane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Bromodichloromethane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Bromoform	<10.3		ug/kg dry	10.3	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Bromomethane	<20.6	L	ug/kg dry	20.6	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<51.4		ug/kg dry	51.4	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
n-Butylbenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
sec-Butylbenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
tert-Butylbenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Carbon disulfide	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Chlorobenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Chlorodibromomethane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Chloroethane	<20.6		ug/kg dry	20.6	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Chloroform	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Chloromethane	<20.6	CIN	ug/kg dry	20.6	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
2-Chlorotoluene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
4-Chlorotoluene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<51.4		ug/kg dry	51.4	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<51.4		ug/kg dry	51.4	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Dibromomethane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<15.4		ug/kg dry	15.4	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<20.6		ug/kg dry	20.6	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Ethylbenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<25.7		ug/kg dry	25.7	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Hexane	<25.7	ICV	ug/kg dry	25.7	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Isopropylbenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-06 (MW-15 0-2.5 - Soil) - cont.					**Sampled: 03/29/11 16:55**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Methylene Chloride	<51.4		ug/kg dry	51.4	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Naphthalene	<25.7		ug/kg dry	25.7	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
n-Propylbenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Styrene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Tetrachloroethene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Toluene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<25.7		ug/kg dry	25.7	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<25.7		ug/kg dry	25.7	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Trichloroethene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<20.6		ug/kg dry	20.6	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<5.14		ug/kg dry	5.14	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Vinyl chloride	<15.4		ug/kg dry	15.4	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Xylenes, total	<15.4		ug/kg dry	15.4	0.834	04/07/11 17:34	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*103 %*								
Surr: Toluene-d8 (80-120%)	*102 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*94 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	232	04/06/11 23:26	cmm	11D0258	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<19.4		mg/kg	19.4	1	04/06/11 05:14	jdb	[CALC]	OA-2 - 8015B
Diesel	<19.4		mg/kg	19.4	1.94	04/06/11 05:14	jdb	11D0059	OA-2 - 8015B
Gasoline	<19.4		mg/kg	19.4	1.94	04/06/11 05:14	jdb	11D0059	OA-2 - 8015B
Motor Oil	<19.4		mg/kg	19.4	1.94	04/06/11 05:14	jdb	11D0059	OA-2 - 8015B
Surr: Octacosane (50-150%)	*94 %*								
HEM									
HEM (Oil & Grease)	**320**	J	mg/Kg dry	610	1	04/07/11 08:48	MTB	109597	9071B OG Dry

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-07 (MW-15 2.5-5 - Soil)					**Sampled: 03/29/11 17:00**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**84.5**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**3.03**		mg/kg dry	1.18	0.925	04/11/11 18:53	sns	11D0137	SW 7060A
Barium	**75.2**		mg/kg dry	0.592	0.989	04/12/11 14:37	cjt	11D0252	SW 6010B
Cadmium	<1.18		mg/kg dry	1.18	0.989	04/12/11 14:37	cjt	11D0252	SW 6010B
Chromium	**14.7**		mg/kg dry	1.18	0.989	04/12/11 14:37	cjt	11D0252	SW 6010B
Lead	**7.42**		mg/kg dry	5.92	0.989	04/12/11 14:37	cjt	11D0252	SW 6010B
Mercury	<0.0237		mg/kg dry	0.0237	0.99	04/06/11 12:30	kmd	11D0189	SW 7471A
Selenium	<8.88		mg/kg dry	8.88	0.989	04/12/11 14:37	cjt	11D0252	SW 6010B
Silver	<1.18		mg/kg dry	1.18	0.989	04/12/11 14:37	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<48.5	L1	ug/kg dry	48.5	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Acrylonitrile	<48.5		ug/kg dry	48.5	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Benzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Bromobenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Bromochloromethane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Bromoform	<9.71		ug/kg dry	9.71	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Bromomethane	<19.4	L	ug/kg dry	19.4	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<48.5		ug/kg dry	48.5	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Carbon disulfide	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Chlorobenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Chloroethane	<19.4		ug/kg dry	19.4	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Chloroform	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Chloromethane	<19.4	CIN	ug/kg dry	19.4	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<48.5		ug/kg dry	48.5	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<48.5		ug/kg dry	48.5	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Dibromomethane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<14.6		ug/kg dry	14.6	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-07 (MW-15 2.5-5 - Soil) - cont.					**Sampled: 03/29/11 17:00**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
cis-1,2-Dichloroethene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<19.4		ug/kg dry	19.4	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Ethylbenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<24.3		ug/kg dry	24.3	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Hexane	<24.3	ICV	ug/kg dry	24.3	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Methylene Chloride	<48.5		ug/kg dry	48.5	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Naphthalene	<24.3		ug/kg dry	24.3	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Styrene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Toluene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<24.3		ug/kg dry	24.3	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<24.3		ug/kg dry	24.3	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Trichloroethene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<19.4		ug/kg dry	19.4	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.85		ug/kg dry	4.85	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Vinyl chloride	<14.6		ug/kg dry	14.6	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Xylenes, total	<14.6		ug/kg dry	14.6	0.82	04/07/11 17:56	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*106 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*96 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	246	04/07/11 00:01	cmm	11D0258	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 05:57	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.984	04/06/11 05:57	jdb	11D0059	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.984	04/06/11 05:57	jdb	11D0059	OA-2 - 8015B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-07 (MW-15 2.5-5 - Soil) - cont.					**Sampled: 03/29/11 17:00**		**Recvd: 04/01/11 09:31**		
UST ANALYSIS PARAMETERS - cont.									
Motor Oil	<10.0		mg/kg	10.0	0.984	04/06/11 05:57	jdb	11D0059	OA-2 - 8015B
Surr: Octacosane (50-150%)	*92 %*								
Polychlorinated Biphenyls by EPA Method 8082									
PCB-1016	<0.0592		mg/kg dry	0.0592	0.996	04/05/11 18:40	jar	11D0081	SW 8082
PCB-1221	<0.0592		mg/kg dry	0.0592	0.996	04/05/11 18:40	jar	11D0081	SW 8082
PCB-1232	<0.0592		mg/kg dry	0.0592	0.996	04/05/11 18:40	jar	11D0081	SW 8082
PCB-1242	<0.0592		mg/kg dry	0.0592	0.996	04/05/11 18:40	jar	11D0081	SW 8082
PCB-1248	<0.0592		mg/kg dry	0.0592	0.996	04/05/11 18:40	jar	11D0081	SW 8082
PCB-1254	<0.0592		mg/kg dry	0.0592	0.996	04/05/11 18:40	jar	11D0081	SW 8082
PCB-1260	<0.0592		mg/kg dry	0.0592	0.996	04/05/11 18:40	jar	11D0081	SW 8082
PCB-1268	<0.0592		mg/kg dry	0.0592	0.996	04/05/11 18:40	jar	11D0081	SW 8082
Surr: Decachlorobiphenyl (55-120%)	*61 %*								
Surr: Tetrachloro-meta-xylene (45-105%)	*58 %*								
HEM									
HEM (Oil & Grease)	<580		mg/Kg dry	580	1	04/07/11 08:51	MTB	109597	9071B OG Dry
Sample ID: CUD0086-08 (MW-15 5-7.5 - Soil)					**Sampled: 03/29/11 17:20**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**83.8**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.80**		mg/kg dry	1.19	0.978	04/11/11 18:56	sns	11D0137	SW 7060A
Barium	**50.5**		mg/kg dry	0.597	0.955	04/12/11 14:42	cjt	11D0252	SW 6010B
Cadmium	<1.19		mg/kg dry	1.19	0.955	04/12/11 14:42	cjt	11D0252	SW 6010B
Chromium	**14.4**		mg/kg dry	1.19	0.955	04/12/11 14:42	cjt	11D0252	SW 6010B
Lead	**6.62**		mg/kg dry	5.97	0.955	04/12/11 14:42	cjt	11D0252	SW 6010B
Mercury	<0.0239		mg/kg dry	0.0239	1	04/06/11 12:32	kmd	11D0189	SW 7471A
Selenium	<8.95		mg/kg dry	8.95	0.955	04/12/11 14:42	cjt	11D0252	SW 6010B
Silver	<1.19		mg/kg dry	1.19	0.955	04/12/11 14:42	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<49.8	L1	ug/kg dry	49.8	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Acrylonitrile	<49.8		ug/kg dry	49.8	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Benzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Bromobenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Bromochloromethane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Bromoform	<9.95		ug/kg dry	9.95	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Bromomethane	<19.9	L	ug/kg dry	19.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<49.8		ug/kg dry	49.8	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Carbon disulfide	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Sample ID: CUD0086-08 (MW-15 5-7.5 - Soil) - cont. **Sampled: 03/29/11 17:20** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Chlorobenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Chloroethane	<19.9		ug/kg dry	19.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Chloroform	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Chloromethane	<19.9	CIN	ug/kg dry	19.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<49.8		ug/kg dry	49.8	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<49.8		ug/kg dry	49.8	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Dibromomethane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<14.9		ug/kg dry	14.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<19.9		ug/kg dry	19.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Ethylbenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<24.9		ug/kg dry	24.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Hexane	<24.9	ICV	ug/kg dry	24.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Methylene Chloride	<49.8		ug/kg dry	49.8	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Naphthalene	<24.9		ug/kg dry	24.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Styrene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Toluene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<24.9		ug/kg dry	24.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<24.9		ug/kg dry	24.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-08 (MW-15 5-7.5 - Soil) - cont.					**Sampled: 03/29/11 17:20**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2-Trichloroethane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Trichloroethene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<19.9		ug/kg dry	19.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.98		ug/kg dry	4.98	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Vinyl chloride	<14.9		ug/kg dry	14.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Xylenes, total	<14.9		ug/kg dry	14.9	0.834	04/07/11 18:19	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*103 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*98 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	243	04/07/11 12:15	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 06:41	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.991	04/06/11 06:41	jdb	11D0059	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.991	04/06/11 06:41	jdb	11D0059	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.991	04/06/11 06:41	jdb	11D0059	OA-2 - 8015B
Surr: Octacosane (50-150%)	*94 %*								
HEM									
HEM (Oil & Grease)	**150**	J	mg/Kg dry	560	1	04/07/11 08:54	MTB	109597	9071B OG Dry
Sample ID: CUD0086-09 (MW-15 7.5-10 - Soil)					**Sampled: 03/29/11 17:25**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**85.4**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**5.23**		mg/kg dry	1.17	0.959	04/11/11 18:59	sns	11D0137	SW 7060A
Barium	**79.5**		mg/kg dry	1.76	2.91	04/12/11 15:17	cjt	11D0252	SW 6010B
Cadmium	<3.51	IE	mg/kg dry	3.51	2.91	04/12/11 15:17	cjt	11D0252	SW 6010B
Chromium	**14.1**		mg/kg dry	3.51	2.91	04/12/11 15:17	cjt	11D0252	SW 6010B
Lead	<17.6	IE	mg/kg dry	17.6	2.91	04/12/11 15:17	cjt	11D0252	SW 6010B
Mercury	<0.0234		mg/kg dry	0.0234	0.963	04/06/11 12:34	kmd	11D0189	SW 7471A
Selenium	<26.4	IE	mg/kg dry	26.4	2.91	04/12/11 15:17	cjt	11D0252	SW 6010B
Silver	<3.51	IE	mg/kg dry	3.51	2.91	04/12/11 15:17	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<48.8	L1	ug/kg dry	48.8	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Acrylonitrile	<48.8		ug/kg dry	48.8	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Benzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Bromobenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Bromochloromethane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Bromoform	<9.76		ug/kg dry	9.76	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Bromomethane	<19.5	L	ug/kg dry	19.5	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B

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Received: 04/01/11
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-09 (MW-15 7.5-10 - Soil) - cont.					**Sampled: 03/29/11 17:25**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
2-Butanone (MEK)	<48.8		ug/kg dry	48.8	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Carbon disulfide	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Chlorobenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Chloroethane	<19.5		ug/kg dry	19.5	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Chloroform	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Chloromethane	<19.5	CIN	ug/kg dry	19.5	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<48.8		ug/kg dry	48.8	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<48.8		ug/kg dry	48.8	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Dibromomethane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<14.6		ug/kg dry	14.6	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<19.5		ug/kg dry	19.5	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Ethylbenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<24.4		ug/kg dry	24.4	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Hexane	<24.4	ICV	ug/kg dry	24.4	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Methylene Chloride	<48.8		ug/kg dry	48.8	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Naphthalene	<24.4		ug/kg dry	24.4	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Styrene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-09 (MW-15 7.5-10 - Soil) - cont.					**Sampled: 03/29/11 17:25**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2,2-Tetrachloroethane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Toluene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<24.4		ug/kg dry	24.4	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<24.4		ug/kg dry	24.4	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Trichloroethene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<19.5		ug/kg dry	19.5	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.88		ug/kg dry	4.88	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Vinyl chloride	<14.6		ug/kg dry	14.6	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Xylenes, total	<14.6		ug/kg dry	14.6	0.834	04/07/11 18:42	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*101 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*99 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	236	04/07/11 12:51	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 07:24	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.983	04/06/11 07:24	jdb	11D0059	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.983	04/06/11 07:24	jdb	11D0059	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.983	04/06/11 07:24	jdb	11D0059	OA-2 - 8015B
Surr: Octacosane (50-150%)	*94 %*								
HEM									
HEM (Oil & Grease)	<550		mg/Kg dry	550	1	04/07/11 08:57	MTB	109597	9071B OG Dry
Sample ID: CUD0086-10 (MW-15 10-13 - Soil)					**Sampled: 03/29/11 17:35**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.3**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**3.64**		mg/kg dry	1.16	0.991	04/11/11 19:09	sns	11D0137	SW 7060A
Barium	**88.8**		mg/kg dry	0.580	0.984	04/12/11 14:52	cjt	11D0252	SW 6010B
Cadmium	<1.16		mg/kg dry	1.16	0.984	04/12/11 14:52	cjt	11D0252	SW 6010B
Chromium	**14.6**		mg/kg dry	1.16	0.984	04/12/11 14:52	cjt	11D0252	SW 6010B
Lead	**7.83**		mg/kg dry	5.80	0.984	04/12/11 14:52	cjt	11D0252	SW 6010B
Mercury	<0.0232		mg/kg dry	0.0232	1	04/06/11 12:35	kmd	11D0189	SW 7471A
Selenium	<8.69		mg/kg dry	8.69	0.984	04/12/11 14:52	cjt	11D0252	SW 6010B
Silver	<1.16		mg/kg dry	1.16	0.984	04/12/11 14:52	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<46.2	L1	ug/kg dry	46.2	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Acrylonitrile	<46.2		ug/kg dry	46.2	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-10 (MW-15 10-13 - Soil) - cont.					**Sampled: 03/29/11 17:35**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
Benzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Bromobenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Bromochloromethane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Bromoform	<9.24		ug/kg dry	9.24	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Bromomethane	<18.5	L	ug/kg dry	18.5	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<46.2		ug/kg dry	46.2	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Carbon disulfide	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Chlorobenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Chloroethane	<18.5		ug/kg dry	18.5	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Chloroform	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Chloromethane	<18.5	CIN	ug/kg dry	18.5	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<46.2		ug/kg dry	46.2	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<46.2		ug/kg dry	46.2	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Dibromomethane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<13.9		ug/kg dry	13.9	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	**5.62**		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<18.5		ug/kg dry	18.5	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Ethylbenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<23.1		ug/kg dry	23.1	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Hexane	<23.1	ICV	ug/kg dry	23.1	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-10 (MW-15 10-13 - Soil) - cont.					**Sampled: 03/29/11 17:35**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
Methylene Chloride	<46.2		ug/kg dry	46.2	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Naphthalene	<23.1		ug/kg dry	23.1	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Styrene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Toluene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<23.1		ug/kg dry	23.1	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<23.1		ug/kg dry	23.1	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Trichloroethene	**244**		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<18.5		ug/kg dry	18.5	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.62		ug/kg dry	4.62	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Vinyl chloride	<13.9		ug/kg dry	13.9	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Xylenes, total	<13.9		ug/kg dry	13.9	0.797	04/07/11 19:05	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*104 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*99 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	243	04/07/11 13:26	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 13:19	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.999	04/06/11 13:19	jdb	11D0059	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.999	04/06/11 13:19	jdb	11D0059	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.999	04/06/11 13:19	jdb	11D0059	OA-2 - 8015B
Surr: Octacosane (50-150%)	*90 %*								
HEM									
HEM (Oil & Grease)	**130**	J	mg/Kg dry	570	1	04/07/11 09:00	MTB	109597	9071B OG Dry

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-11 (MW-16 0-2.5 - Soil)					**Sampled: 03/30/11 08:50**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**81.9**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**8.56**	M1	mg/kg dry	1.22	0.941	04/11/11 22:37	kmd	11D0218	SW 7060A
Barium	**138**		mg/kg dry	0.610	0.963	04/12/11 14:57	cjt	11D0252	SW 6010B
Cadmium	<1.22		mg/kg dry	1.22	0.963	04/12/11 14:57	cjt	11D0252	SW 6010B
Chromium	**19.2**		mg/kg dry	1.22	0.963	04/12/11 14:57	cjt	11D0252	SW 6010B
Lead	**8.51**		mg/kg dry	6.10	0.963	04/12/11 14:57	cjt	11D0252	SW 6010B
Mercury	**0.0255**		mg/kg dry	0.0244	0.997	04/06/11 12:37	kmd	11D0189	SW 7471A
Selenium	<9.15		mg/kg dry	9.15	0.963	04/12/11 14:57	cjt	11D0252	SW 6010B
Silver	<1.22	M1	mg/kg dry	1.22	0.963	04/12/11 14:57	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<48.6	L1	ug/kg dry	48.6	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Acrylonitrile	<48.6		ug/kg dry	48.6	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Benzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Bromobenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Bromochloromethane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Bromoform	<9.72		ug/kg dry	9.72	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Bromomethane	<19.4	L	ug/kg dry	19.4	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<48.6		ug/kg dry	48.6	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Carbon disulfide	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Chlorobenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Chloroethane	<19.4		ug/kg dry	19.4	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Chloroform	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Chloromethane	<19.4	CIN	ug/kg dry	19.4	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<48.6		ug/kg dry	48.6	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<48.6		ug/kg dry	48.6	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Dibromomethane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<14.6		ug/kg dry	14.6	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-11 (MW-16 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 08:50**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
cis-1,2-Dichloroethene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<19.4		ug/kg dry	19.4	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Ethylbenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<24.3		ug/kg dry	24.3	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Hexane	<24.3	ICV	ug/kg dry	24.3	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Methylene Chloride	<48.6		ug/kg dry	48.6	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Naphthalene	<24.3		ug/kg dry	24.3	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Styrene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Toluene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<24.3		ug/kg dry	24.3	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<24.3		ug/kg dry	24.3	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Trichloroethene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<19.4		ug/kg dry	19.4	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.86		ug/kg dry	4.86	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Vinyl chloride	<14.6		ug/kg dry	14.6	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Xylenes, total	<14.6		ug/kg dry	14.6	0.796	04/07/11 19:28	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*103 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*97 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	248	04/07/11 14:01	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/05/11 19:58	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.974	04/05/11 19:58	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.974	04/05/11 19:58	jdb	11D0082	OA-2 - 8015B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-11 (MW-16 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 08:50**		**Recvd: 04/01/11 09:31**		
UST ANALYSIS PARAMETERS - cont.									
Motor Oil	<10.0		mg/kg	10.0	0.974	04/05/11 19:58	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*87 %*								
HEM									
HEM (Oil & Grease)	<600		mg/Kg dry	600	1	04/07/11 09:03	MTB	109597	9071B OG Dry
Sample ID: CUD0086-12 (MW-16 2.5-5 - Soil)					**Sampled: 03/30/11 09:00**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**82.1**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.84**		mg/kg dry	1.22	0.957	04/11/11 22:49	kmd	11D0218	SW 7060A
Barium	**108**		mg/kg dry	0.609	0.978	04/12/11 15:07	cjt	11D0252	SW 6010B
Cadmium	<1.22		mg/kg dry	1.22	0.978	04/12/11 15:07	cjt	11D0252	SW 6010B
Chromium	**17.8**		mg/kg dry	1.22	0.978	04/12/11 15:07	cjt	11D0252	SW 6010B
Lead	**8.16**		mg/kg dry	6.09	0.978	04/12/11 15:07	cjt	11D0252	SW 6010B
Mercury	**0.0275**		mg/kg dry	0.0244	0.966	04/06/11 12:39	kmd	11D0189	SW 7471A
Selenium	<9.13		mg/kg dry	9.13	0.978	04/12/11 15:07	cjt	11D0252	SW 6010B
Silver	<1.22		mg/kg dry	1.22	0.978	04/12/11 15:07	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<46.1	L1	ug/kg dry	46.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Acrylonitrile	<46.1		ug/kg dry	46.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Benzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Bromobenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Bromochloromethane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Bromoform	<9.23		ug/kg dry	9.23	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Bromomethane	<18.5	L	ug/kg dry	18.5	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<46.1		ug/kg dry	46.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Carbon disulfide	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Chlorobenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Chloroethane	<18.5		ug/kg dry	18.5	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Chloroform	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Chloromethane	<18.5	CIN	ug/kg dry	18.5	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<46.1		ug/kg dry	46.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<46.1		ug/kg dry	46.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Dibromomethane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-12 (MW-16 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 09:00**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
1,3-Dichlorobenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<13.8		ug/kg dry	13.8	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<18.5		ug/kg dry	18.5	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Ethylbenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<23.1		ug/kg dry	23.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Hexane	<23.1	ICV	ug/kg dry	23.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Methylene Chloride	<46.1		ug/kg dry	46.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Naphthalene	<23.1		ug/kg dry	23.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Styrene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Toluene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<23.1		ug/kg dry	23.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<23.1		ug/kg dry	23.1	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Trichloroethene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<18.5		ug/kg dry	18.5	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.61		ug/kg dry	4.61	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Vinyl chloride	<13.8		ug/kg dry	13.8	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Xylenes, total	<13.8		ug/kg dry	13.8	0.758	04/07/11 19:51	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*								

TestAmerica Cedar Falls
Derrick Klinkenberg
Organics Manager

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-12 (MW-16 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 09:00**		**Recvd: 04/01/11 09:31**		
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	239	04/07/11 14:37	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/05/11 20:42	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.973	04/05/11 20:42	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.973	04/05/11 20:42	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.973	04/05/11 20:42	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*82 %*								
Polychlorinated Biphenyls by EPA Method 8082									
PCB-1016	<0.0609		mg/kg dry	0.0609	0.99	04/05/11 18:51	jar	11D0081	SW 8082
PCB-1221	<0.0609		mg/kg dry	0.0609	0.99	04/05/11 18:51	jar	11D0081	SW 8082
PCB-1232	<0.0609		mg/kg dry	0.0609	0.99	04/05/11 18:51	jar	11D0081	SW 8082
PCB-1242	<0.0609		mg/kg dry	0.0609	0.99	04/05/11 18:51	jar	11D0081	SW 8082
PCB-1248	<0.0609		mg/kg dry	0.0609	0.99	04/05/11 18:51	jar	11D0081	SW 8082
PCB-1254	<0.0609		mg/kg dry	0.0609	0.99	04/05/11 18:51	jar	11D0081	SW 8082
PCB-1260	<0.0609		mg/kg dry	0.0609	0.99	04/05/11 18:51	jar	11D0081	SW 8082
PCB-1268	<0.0609		mg/kg dry	0.0609	0.99	04/05/11 18:51	jar	11D0081	SW 8082
Surr: Decachlorobiphenyl (55-120%)	*67 %*								
Surr: Tetrachloro-meta-xylene (45-105%)	*61 %*								
HEM									
HEM (Oil & Grease)	**120**	J	mg/Kg dry	600	1	04/07/11 09:06	MTB	109597	9071B OG Dry
Sample ID: CUD0086-13 (MW-16 5-7.5 - Soil)					**Sampled: 03/29/11 09:10**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**85.9**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**4.15**		mg/kg dry	1.16	0.911	04/11/11 22:52	kmd	11D0218	SW 7060A
Barium	**59.5**		mg/kg dry	0.582	0.951	04/12/11 15:36	cjt	11D0252	SW 6010B
Cadmium	<1.16		mg/kg dry	1.16	0.951	04/12/11 15:36	cjt	11D0252	SW 6010B
Chromium	**14.5**		mg/kg dry	1.16	0.951	04/12/11 15:36	cjt	11D0252	SW 6010B
Lead	**7.47**		mg/kg dry	5.82	0.951	04/12/11 15:36	cjt	11D0252	SW 6010B
Mercury	<0.0233		mg/kg dry	0.0233	1	04/06/11 12:41	kmd	11D0189	SW 7471A
Selenium	<8.73		mg/kg dry	8.73	0.951	04/12/11 15:36	cjt	11D0252	SW 6010B
Silver	<1.16		mg/kg dry	1.16	0.951	04/12/11 15:36	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<47.8	L1	ug/kg dry	47.8	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Acrylonitrile	<47.8		ug/kg dry	47.8	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Benzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Bromobenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Bromochloromethane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Bromoform	<9.55		ug/kg dry	9.55	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Bromomethane	<19.1	L	ug/kg dry	19.1	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<47.8		ug/kg dry	47.8	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-13 (MW-16 5-7.5 - Soil) - cont.					**Sampled: 03/29/11 09:10**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
n-Butylbenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Carbon disulfide	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Chlorobenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Chloroethane	<19.1		ug/kg dry	19.1	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Chloroform	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Chloromethane	<19.1	CIN	ug/kg dry	19.1	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<47.8		ug/kg dry	47.8	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<47.8		ug/kg dry	47.8	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Dibromomethane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<14.3		ug/kg dry	14.3	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<19.1		ug/kg dry	19.1	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Ethylbenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<23.9		ug/kg dry	23.9	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Hexane	<23.9	ICV	ug/kg dry	23.9	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Methylene Chloride	<47.8		ug/kg dry	47.8	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Naphthalene	<23.9		ug/kg dry	23.9	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Styrene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-13 (MW-16 5-7.5 - Soil) - cont.					**Sampled: 03/29/11 09:10**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Tetrachloroethene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Toluene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<23.9		ug/kg dry	23.9	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<23.9		ug/kg dry	23.9	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Trichloroethene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<19.1		ug/kg dry	19.1	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.78		ug/kg dry	4.78	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Vinyl chloride	<14.3		ug/kg dry	14.3	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Xylenes, total	<14.3		ug/kg dry	14.3	0.82	04/07/11 20:14	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*102 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	249	04/07/11 15:12	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/05/11 21:26	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.986	04/05/11 21:26	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.986	04/05/11 21:26	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.986	04/05/11 21:26	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*84 %*								
HEM									
HEM (Oil & Grease)	**130**	J	mg/Kg dry	570	1	04/07/11 09:10	MTB	109597	9071B OG Dry
Sample ID: CUD0086-14 (MW-16 7.5-10 - Soil)					**Sampled: 03/30/11 09:20**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**85.0**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**4.25**		mg/kg dry	1.18	0.94	04/11/11 22:55	kmd	11D0218	SW 7060A
Barium	**74.1**		mg/kg dry	0.588	0.922	04/12/11 15:41	cjt	11D0252	SW 6010B
Cadmium	<1.18		mg/kg dry	1.18	0.922	04/12/11 15:41	cjt	11D0252	SW 6010B
Chromium	**15.9**		mg/kg dry	1.18	0.922	04/12/11 15:41	cjt	11D0252	SW 6010B
Lead	**7.92**		mg/kg dry	5.88	0.922	04/12/11 15:41	cjt	11D0252	SW 6010B
Mercury	<0.0212		mg/kg dry	0.0212	0.902	04/06/11 12:42	kmd	11D0189	SW 7471A
Selenium	<8.83		mg/kg dry	8.83	0.922	04/12/11 15:41	cjt	11D0252	SW 6010B
Silver	<1.18		mg/kg dry	1.18	0.922	04/12/11 15:41	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<43.3	L1	ug/kg dry	43.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Acrylonitrile	<43.3		ug/kg dry	43.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Benzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B

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Received: 04/01/11
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-14 (MW-16 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 09:20**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
Bromobenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Bromochloromethane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Bromoform	<8.66		ug/kg dry	8.66	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Bromomethane	<17.3	L	ug/kg dry	17.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<43.3		ug/kg dry	43.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Carbon disulfide	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Chlorobenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Chloroethane	<17.3		ug/kg dry	17.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Chloroform	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Chloromethane	<17.3	CIN	ug/kg dry	17.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<43.3		ug/kg dry	43.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<43.3		ug/kg dry	43.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Dibromomethane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<13.0		ug/kg dry	13.0	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<17.3		ug/kg dry	17.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Ethylbenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<21.6		ug/kg dry	21.6	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Hexane	<21.6	ICV	ug/kg dry	21.6	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Methylene Chloride	<43.3		ug/kg dry	43.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-14 (MW-16 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 09:20**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Methyl tert-Butyl Ether	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Naphthalene	<21.6		ug/kg dry	21.6	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Styrene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Toluene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<21.6		ug/kg dry	21.6	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<21.6		ug/kg dry	21.6	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Trichloroethene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<17.3		ug/kg dry	17.3	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.33		ug/kg dry	4.33	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Vinyl chloride	<13.0		ug/kg dry	13.0	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Xylenes, total	<13.0		ug/kg dry	13.0	0.736	04/07/11 20:37	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*98 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	232	04/07/11 15:47	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/05/11 22:10	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.991	04/05/11 22:10	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.991	04/05/11 22:10	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.991	04/05/11 22:10	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*85 %*								
HEM									
HEM (Oil & Grease)	**110**	J	mg/Kg dry	580	1	04/07/11 09:13	MTB	109597	9071B OG Dry

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-15 (MW-16 10-13 - Soil)					**Sampled: 03/30/11 09:30**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.8**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.09**		mg/kg dry	1.15	0.969	04/11/11 22:59	kmd	11D0218	SW 7060A
Barium	**68.5**		mg/kg dry	0.576	0.945	04/12/11 15:46	cjt	11D0252	SW 6010B
Cadmium	<1.15		mg/kg dry	1.15	0.945	04/12/11 15:46	cjt	11D0252	SW 6010B
Chromium	**13.4**		mg/kg dry	1.15	0.945	04/12/11 15:46	cjt	11D0252	SW 6010B
Lead	**9.21**		mg/kg dry	5.76	0.945	04/12/11 15:46	cjt	11D0252	SW 6010B
Mercury	<0.0230		mg/kg dry	0.0230	0.922	04/06/11 12:44	kmd	11D0189	SW 7471A
Selenium	<8.64		mg/kg dry	8.64	0.945	04/12/11 15:46	cjt	11D0252	SW 6010B
Silver	<1.15		mg/kg dry	1.15	0.945	04/12/11 15:46	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<46.2	L1	ug/kg dry	46.2	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Acrylonitrile	<46.2		ug/kg dry	46.2	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Benzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Bromobenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Bromochloromethane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Bromoform	<9.23		ug/kg dry	9.23	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Bromomethane	<18.5	L	ug/kg dry	18.5	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<46.2		ug/kg dry	46.2	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Carbon disulfide	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Chlorobenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Chloroethane	<18.5		ug/kg dry	18.5	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Chloroform	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Chloromethane	<18.5	CIN	ug/kg dry	18.5	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<46.2		ug/kg dry	46.2	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<46.2		ug/kg dry	46.2	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Dibromomethane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<13.8		ug/kg dry	13.8	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-15 (MW-16 10-13 - Soil) - cont.					**Sampled: 03/30/11 09:30**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
cis-1,2-Dichloroethene	**18.1**		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<18.5		ug/kg dry	18.5	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Ethylbenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<23.1		ug/kg dry	23.1	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Hexane	<23.1	ICV	ug/kg dry	23.1	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Methylene Chloride	<46.2		ug/kg dry	46.2	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Naphthalene	<23.1		ug/kg dry	23.1	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Styrene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Tetrachloroethene	**6.34**		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Toluene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<23.1		ug/kg dry	23.1	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<23.1		ug/kg dry	23.1	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Trichloroethene	**324**		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<18.5		ug/kg dry	18.5	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.62		ug/kg dry	4.62	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Vinyl chloride	<13.8		ug/kg dry	13.8	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Xylenes, total	<13.8		ug/kg dry	13.8	0.801	04/07/11 21:00	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*98 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*97 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	236	04/07/11 16:23	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/05/11 22:54	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.98	04/05/11 22:54	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.98	04/05/11 22:54	jdb	11D0082	OA-2 - 8015B

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Received: 04/01/11
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-15 (MW-16 10-13 - Soil) - cont.					**Sampled: 03/30/11 09:30**		**Recvd: 04/01/11 09:31**		
UST ANALYSIS PARAMETERS - cont.									
Motor Oil	<10.0		mg/kg	10.0	0.98	04/05/11 22:54	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*91 %*								
HEM									
HEM (Oil & Grease)	<570		mg/Kg dry	570	1	04/07/11 09:16	MTB	109597	9071B OG Dry
Sample ID: CUD0086-16 (MW-17 0-2.5 - Soil)					**Sampled: 03/30/11 10:05**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.0**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**5.26**		mg/kg dry	1.16	0.947	04/11/11 23:09	kmd	11D0218	SW 7060A
Barium	**126**		mg/kg dry	0.581	0.983	04/12/11 15:51	cjt	11D0252	SW 6010B
Cadmium	<1.16		mg/kg dry	1.16	0.983	04/12/11 15:51	cjt	11D0252	SW 6010B
Chromium	**17.5**		mg/kg dry	1.16	0.983	04/12/11 15:51	cjt	11D0252	SW 6010B
Lead	**9.05**		mg/kg dry	5.81	0.983	04/12/11 15:51	cjt	11D0252	SW 6010B
Mercury	<0.0232		mg/kg dry	0.0232	0.965	04/06/11 12:46	kmd	11D0189	SW 7471A
Selenium	<8.72		mg/kg dry	8.72	0.983	04/12/11 15:51	cjt	11D0252	SW 6010B
Silver	<1.16		mg/kg dry	1.16	0.983	04/12/11 15:51	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	**55.3**	L1	ug/kg dry	47.4	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Acrylonitrile	<47.4		ug/kg dry	47.4	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Benzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Bromobenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Bromochloromethane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Bromoform	<9.48		ug/kg dry	9.48	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Bromomethane	<19.0	L	ug/kg dry	19.0	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<47.4		ug/kg dry	47.4	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Carbon disulfide	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Chlorobenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Chloroethane	<19.0		ug/kg dry	19.0	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Chloroform	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Chloromethane	<19.0	CIN	ug/kg dry	19.0	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<47.4		ug/kg dry	47.4	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<47.4		ug/kg dry	47.4	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Dibromomethane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-16 (MW-17 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 10:05**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,3-Dichlorobenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<14.2		ug/kg dry	14.2	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<19.0		ug/kg dry	19.0	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Ethylbenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<23.7		ug/kg dry	23.7	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Hexane	<23.7	ICV	ug/kg dry	23.7	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Methylene Chloride	<47.4		ug/kg dry	47.4	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Naphthalene	<23.7		ug/kg dry	23.7	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Styrene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Toluene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<23.7		ug/kg dry	23.7	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<23.7		ug/kg dry	23.7	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Trichloroethene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<19.0		ug/kg dry	19.0	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.74		ug/kg dry	4.74	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Vinyl chloride	<14.2		ug/kg dry	14.2	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Xylenes, total	<14.2		ug/kg dry	14.2	0.816	04/07/11 21:23	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*95 %*								

TestAmerica Cedar Falls
Derrick Klinkenberg
Organics Manager

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-16 (MW-17 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 10:05**		**Recvd: 04/01/11 09:31**		
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	246	04/07/11 16:58	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**238**		mg/kg	10.0	1	04/06/11 09:00	jdb	[CALC]	OA-2 - 8015B
Diesel	**49.6**	Q	mg/kg	10.0	0.981	04/06/11 09:00	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.981	04/06/11 09:00	jdb	11D0082	OA-2 - 8015B
Motor Oil	**189**		mg/kg	10.0	0.981	04/06/11 09:00	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*204 %*	*ZX*							
HEM									
HEM (Oil & Grease)	<530		mg/Kg dry	530	1	04/07/11 09:19	MTB	109597	9071B OG Dry
Sample ID: CUD0086-17 (MW-17 2.5-5 - Soil)					**Sampled: 03/30/11 10:15**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.1**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**4.71**		mg/kg dry	1.16	0.975	04/11/11 23:12	kmd	11D0218	SW 7060A
Barium	**81.1**		mg/kg dry	1.74	2.75	04/12/11 16:15	cjt	11D0252	SW 6010B
Cadmium	<3.48	IE	mg/kg dry	3.48	2.75	04/12/11 16:15	cjt	11D0252	SW 6010B
Chromium	**15.1**		mg/kg dry	3.48	2.75	04/12/11 16:15	cjt	11D0252	SW 6010B
Lead	<17.4	IE	mg/kg dry	17.4	2.75	04/12/11 16:15	cjt	11D0252	SW 6010B
Mercury	<0.0232		mg/kg dry	0.0232	0.929	04/06/11 12:55	kmd	11D0190	SW 7471A
Selenium	<26.1	IE	mg/kg dry	26.1	2.75	04/12/11 16:15	cjt	11D0252	SW 6010B
Silver	<3.48	IE	mg/kg dry	3.48	2.75	04/12/11 16:15	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<45.6	L1	ug/kg dry	45.6	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Acrylonitrile	<45.6		ug/kg dry	45.6	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Benzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Bromobenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Bromochloromethane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Bromoform	<9.11		ug/kg dry	9.11	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Bromomethane	<18.2	L	ug/kg dry	18.2	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<45.6		ug/kg dry	45.6	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Carbon disulfide	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Chlorobenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Chloroethane	<18.2		ug/kg dry	18.2	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Chloroform	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Chloromethane	<18.2	CIN	ug/kg dry	18.2	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-17 (MW-17 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 10:15**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
4-Chlorotoluene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<45.6		ug/kg dry	45.6	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<45.6		ug/kg dry	45.6	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Dibromomethane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<13.7		ug/kg dry	13.7	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<18.2		ug/kg dry	18.2	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Ethylbenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<22.8		ug/kg dry	22.8	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Hexane	<22.8	ICV	ug/kg dry	22.8	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Methylene Chloride	<45.6		ug/kg dry	45.6	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Naphthalene	<22.8		ug/kg dry	22.8	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Styrene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Toluene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<22.8		ug/kg dry	22.8	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<22.8		ug/kg dry	22.8	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Trichloroethene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<18.2		ug/kg dry	18.2	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.56		ug/kg dry	4.56	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-17 (MW-17 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 10:15**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Vinyl chloride	<13.7		ug/kg dry	13.7	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Xylenes, total	<13.7		ug/kg dry	13.7	0.785	04/07/11 21:46	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*97 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*99 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	241	04/07/11 17:33	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/05/11 23:38	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.993	04/05/11 23:38	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.993	04/05/11 23:38	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.993	04/05/11 23:38	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*81 %*								
HEM									
HEM (Oil & Grease)	**150**	J	mg/Kg dry	580	1	04/07/11 09:22	MTB	109597	9071B OG Dry
Sample ID: CUD0086-18 (MW-17 5-7.5 - Soil)					**Sampled: 03/30/11 10:20**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**85.2**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**9.50**		mg/kg dry	1.17	0.975	04/11/11 23:15	kmd	11D0218	SW 7060A
Barium	**75.3**		mg/kg dry	0.587	0.956	04/12/11 16:01	cjt	11D0252	SW 6010B
Cadmium	<1.17		mg/kg dry	1.17	0.956	04/12/11 16:01	cjt	11D0252	SW 6010B
Chromium	**13.9**		mg/kg dry	1.17	0.956	04/12/11 16:01	cjt	11D0252	SW 6010B
Lead	**9.83**		mg/kg dry	5.87	0.956	04/12/11 16:01	cjt	11D0252	SW 6010B
Mercury	<0.0235		mg/kg dry	0.0235	0.972	04/06/11 13:00	kmd	11D0190	SW 7471A
Selenium	<8.81		mg/kg dry	8.81	0.956	04/12/11 16:01	cjt	11D0252	SW 6010B
Silver	<1.17		mg/kg dry	1.17	0.956	04/12/11 16:01	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<48.3	L1	ug/kg dry	48.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Acrylonitrile	<48.3		ug/kg dry	48.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Benzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Bromobenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Bromochloromethane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Bromoform	<9.67		ug/kg dry	9.67	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Bromomethane	<19.3	L	ug/kg dry	19.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<48.3		ug/kg dry	48.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Carbon disulfide	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-18 (MW-17 5-7.5 - Soil) - cont.					**Sampled: 03/30/11 10:20**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
Chlorobenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Chloroethane	<19.3		ug/kg dry	19.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Chloroform	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Chloromethane	<19.3	CIN	ug/kg dry	19.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<48.3		ug/kg dry	48.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<48.3		ug/kg dry	48.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Dibromomethane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<14.5		ug/kg dry	14.5	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<19.3		ug/kg dry	19.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Ethylbenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<24.2		ug/kg dry	24.2	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Hexane	<24.2	ICV	ug/kg dry	24.2	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Methylene Chloride	<48.3		ug/kg dry	48.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Naphthalene	<24.2		ug/kg dry	24.2	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Styrene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Toluene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<24.2		ug/kg dry	24.2	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<24.2		ug/kg dry	24.2	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-18 (MW-17 5-7.5 - Soil) - cont.					**Sampled: 03/30/11 10:20**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2-Trichloroethane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Trichloroethene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<19.3		ug/kg dry	19.3	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.83		ug/kg dry	4.83	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Vinyl chloride	<14.5		ug/kg dry	14.5	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Xylenes, total	<14.5		ug/kg dry	14.5	0.823	04/07/11 22:09	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*97 %*								
Surr: Toluene-d8 (80-120%)	*102 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*104 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	231	04/07/11 18:08	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**318**		mg/kg	10.0	1	04/06/11 00:21	jdb	[CALC]	OA-2 - 8015B
Diesel	**103**	Q	mg/kg	10.0	0.988	04/06/11 00:21	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.988	04/06/11 00:21	jdb	11D0082	OA-2 - 8015B
Motor Oil	**215**		mg/kg	10.0	0.988	04/06/11 00:21	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*250 %*	*ZX*							
HEM									
HEM (Oil & Grease)	**630**		mg/Kg dry	580	1	04/07/11 09:25	MTB	109597	9071B OG Dry
Sample ID: CUD0086-19 (MW-17 7.5-10 - Soil)					**Sampled: 03/30/11 10:25**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.3**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**7.27**		mg/kg dry	1.16	0.923	04/11/11 23:18	kmd	11D0218	SW 7060A
Barium	**65.5**		mg/kg dry	0.579	0.973	04/12/11 16:06	cjt	11D0252	SW 6010B
Cadmium	<1.16		mg/kg dry	1.16	0.973	04/12/11 16:06	cjt	11D0252	SW 6010B
Chromium	**12.1**		mg/kg dry	1.16	0.973	04/12/11 16:06	cjt	11D0252	SW 6010B
Lead	**8.71**		mg/kg dry	5.79	0.973	04/12/11 16:06	cjt	11D0252	SW 6010B
Mercury	<0.0202		mg/kg dry	0.0202	0.873	04/06/11 13:02	kmd	11D0190	SW 7471A
Selenium	<8.69		mg/kg dry	8.69	0.973	04/12/11 16:06	cjt	11D0252	SW 6010B
Silver	<1.16		mg/kg dry	1.16	0.973	04/12/11 16:06	cjt	11D0252	SW 6010B
Volatile Organic Compounds									
Acetone	<42.3	L1	ug/kg dry	42.3	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Acrylonitrile	<42.3		ug/kg dry	42.3	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Benzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Bromobenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Bromochloromethane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Bromoform	<8.46		ug/kg dry	8.46	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Bromomethane	<16.9	L	ug/kg dry	16.9	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-19 (MW-17 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 10:25**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
2-Butanone (MEK)	<42.3		ug/kg dry	42.3	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
sec-Butylbenzene	**19.2**		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Carbon disulfide	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Chlorobenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Chloroethane	<16.9		ug/kg dry	16.9	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Chloroform	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Chloromethane	<16.9	CIN	ug/kg dry	16.9	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<42.3		ug/kg dry	42.3	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<42.3		ug/kg dry	42.3	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Dibromomethane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<12.7		ug/kg dry	12.7	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
cis-1,2-Dichloroethene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<16.9		ug/kg dry	16.9	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Ethylbenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<21.2		ug/kg dry	21.2	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Hexane	<21.2	ICV	ug/kg dry	21.2	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Methylene Chloride	<42.3		ug/kg dry	42.3	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Naphthalene	<21.2		ug/kg dry	21.2	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Styrene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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Work Order: CUD0086
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Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-19 (MW-17 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 10:25**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2,2-Tetrachloroethane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Toluene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<21.2		ug/kg dry	21.2	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<21.2		ug/kg dry	21.2	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Trichloroethene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<16.9		ug/kg dry	16.9	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	**97.8**		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.23		ug/kg dry	4.23	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Vinyl chloride	<12.7		ug/kg dry	12.7	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Xylenes, total	<12.7		ug/kg dry	12.7	0.731	04/07/11 22:32	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*96 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	241	04/07/11 18:43	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**1430**		mg/kg	10.0	1	04/06/11 01:04	jdb	[CALC]	OA-2 - 8015B
Diesel	**417**	Q	mg/kg	10.0	0.983	04/06/11 01:04	jdb	11D0082	OA-2 - 8015B
Gasoline	**34.2**	Q	mg/kg	10.0	0.983	04/06/11 01:04	jdb	11D0082	OA-2 - 8015B
Motor Oil	**978**		mg/kg	10.0	0.983	04/06/11 01:04	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*571 %*	*ZX*							
Polychlorinated Biphenyls by EPA Method 8082									
PCB-1016	<0.0579		mg/kg dry	0.0579	0.989	04/05/11 19:01	jar	11D0081	SW 8082
PCB-1221	<0.0579		mg/kg dry	0.0579	0.989	04/05/11 19:01	jar	11D0081	SW 8082
PCB-1232	<0.0579		mg/kg dry	0.0579	0.989	04/05/11 19:01	jar	11D0081	SW 8082
PCB-1242	<0.0579		mg/kg dry	0.0579	0.989	04/05/11 19:01	jar	11D0081	SW 8082
PCB-1248	<0.0579		mg/kg dry	0.0579	0.989	04/05/11 19:01	jar	11D0081	SW 8082
PCB-1254	<0.0579		mg/kg dry	0.0579	0.989	04/05/11 19:01	jar	11D0081	SW 8082
PCB-1260	<0.0579		mg/kg dry	0.0579	0.989	04/05/11 19:01	jar	11D0081	SW 8082
PCB-1268	<0.0579		mg/kg dry	0.0579	0.989	04/05/11 19:01	jar	11D0081	SW 8082
Surr: Decachlorobiphenyl (55-120%)	*68 %*								
Surr: Tetrachloro-meta-xylene (45-105%)	*68 %*								
HEM									
HEM (Oil & Grease)	**1400**		mg/Kg dry	580	1	04/07/11 09:28	MTB	109597	9071B OG Dry

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-20 (MW-17 10-13 - Soil)					**Sampled: 03/30/11 10:30**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.8**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**3.43**		mg/kg dry	1.15	0.971	04/11/11 23:21	kmd	11D0218	SW 7060A
Barium	**138**		mg/kg dry	0.576	0.97	04/17/11 17:32	cjt	11D0253	SW 6010B
Cadmium	<1.15		mg/kg dry	1.15	0.97	04/17/11 17:32	cjt	11D0253	SW 6010B
Chromium	**14.0**		mg/kg dry	1.15	0.97	04/17/11 17:32	cjt	11D0253	SW 6010B
Lead	<5.76		mg/kg dry	5.76	0.97	04/17/11 17:32	cjt	11D0253	SW 6010B
Mercury	<0.0209		mg/kg dry	0.0209	0.908	04/06/11 13:04	kmd	11D0190	SW 7471A
Selenium	<8.64		mg/kg dry	8.64	0.97	04/17/11 17:32	cjt	11D0253	SW 6010B
Silver	<1.15	M1	mg/kg dry	1.15	0.97	04/17/11 17:32	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<43.4	L1	ug/kg dry	43.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Acrylonitrile	<43.4		ug/kg dry	43.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Benzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Bromobenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Bromochloromethane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Bromodichloromethane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Bromoform	<8.68		ug/kg dry	8.68	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Bromomethane	<17.4	L	ug/kg dry	17.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
2-Butanone (MEK)	<43.4		ug/kg dry	43.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
n-Butylbenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
sec-Butylbenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
tert-Butylbenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Carbon disulfide	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Carbon Tetrachloride	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Chlorobenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Chlorodibromomethane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Chloroethane	<17.4		ug/kg dry	17.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Chloroform	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Chloromethane	<17.4	CIN	ug/kg dry	17.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
2-Chlorotoluene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
4-Chlorotoluene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,2-Dibromo-3-chloropropane	<43.4		ug/kg dry	43.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,2-Dibromoethane (EDB)	<43.4		ug/kg dry	43.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Dibromomethane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,2-Dichlorobenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,3-Dichlorobenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,4-Dichlorobenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Dichlorodifluoromethane	<13.0		ug/kg dry	13.0	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,1-Dichloroethane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,2-Dichloroethane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,1-Dichloroethene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-20 (MW-17 10-13 - Soil) - cont.					**Sampled: 03/30/11 10:30**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
cis-1,2-Dichloroethene	**24.5**		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
trans-1,2-Dichloroethene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,2-Dichloropropane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,3-Dichloropropane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
2,2-Dichloropropane	<17.4		ug/kg dry	17.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,1-Dichloropropene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
cis-1,3-Dichloropropene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
trans-1,3-Dichloropropene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Ethylbenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Hexachlorobutadiene	<21.7		ug/kg dry	21.7	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Hexane	<21.7	ICV	ug/kg dry	21.7	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Isopropylbenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
p-Isopropyltoluene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Methylene Chloride	<43.4		ug/kg dry	43.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Methyl tert-Butyl Ether	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Naphthalene	<21.7		ug/kg dry	21.7	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
n-Propylbenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Styrene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,1,1,2-Tetrachloroethane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,1,2,2-Tetrachloroethane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Tetrachloroethene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Toluene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,2,3-Trichlorobenzene	<21.7		ug/kg dry	21.7	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,2,4-Trichlorobenzene	<21.7		ug/kg dry	21.7	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,1,1-Trichloroethane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,1,2-Trichloroethane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Trichloroethene	**127**		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Trichlorofluoromethane	<17.4		ug/kg dry	17.4	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,2,3-Trichloropropane	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,2,4-Trimethylbenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
1,3,5-Trimethylbenzene	<4.34		ug/kg dry	4.34	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Vinyl chloride	<13.0		ug/kg dry	13.0	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Xylenes, total	<13.0		ug/kg dry	13.0	0.753	04/07/11 22:55	FMK	11D0492	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*94 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*97 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	238	04/07/11 19:19	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 01:48	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.983	04/06/11 01:48	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.983	04/06/11 01:48	jdb	11D0082	OA-2 - 8015B

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-20 (MW-17 10-13 - Soil) - cont.					**Sampled: 03/30/11 10:30**		**Recvd: 04/01/11 09:31**		
UST ANALYSIS PARAMETERS - cont.									
Motor Oil	<10.0		mg/kg	10.0	0.983	04/06/11 01:48	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*91 %*								
HEM									
HEM (Oil & Grease)	**160**	J	mg/Kg dry	570	1	04/07/11 09:31	MTB	109597	9071B OG Dry
Sample ID: CUD0086-21 (MW-18 0-2.5 - Soil)					**Sampled: 03/30/11 11:30**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**82.8**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**5.31**		mg/kg dry	1.09	0.9	04/11/11 23:24	kmd	11D0218	SW 7060A
Barium	**138**		mg/kg dry	0.604	0.925	04/17/11 17:52	cjt	11D0253	SW 6010B
Cadmium	<1.21		mg/kg dry	1.21	0.925	04/17/11 17:52	cjt	11D0253	SW 6010B
Chromium	**20.4**		mg/kg dry	1.21	0.925	04/17/11 17:52	cjt	11D0253	SW 6010B
Lead	**6.45**		mg/kg dry	6.04	0.925	04/17/11 17:52	cjt	11D0253	SW 6010B
Mercury	<0.0241		mg/kg dry	0.0241	0.974	04/06/11 13:06	kmd	11D0190	SW 7471A
Selenium	<9.06		mg/kg dry	9.06	0.925	04/17/11 17:52	cjt	11D0253	SW 6010B
Silver	<1.21		mg/kg dry	1.21	0.925	04/17/11 17:52	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	**88.0**		ug/kg dry	51.2	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Acrylonitrile	<51.2		ug/kg dry	51.2	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Benzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Bromobenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Bromochloromethane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Bromodichloromethane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Bromoform	<10.2		ug/kg dry	10.2	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Bromomethane	<20.5		ug/kg dry	20.5	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
2-Butanone (MEK)	<51.2		ug/kg dry	51.2	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
n-Butylbenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
sec-Butylbenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
tert-Butylbenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Carbon disulfide	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Chlorobenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Chlorodibromomethane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Chloroethane	<20.5		ug/kg dry	20.5	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Chloroform	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Chloromethane	<20.5	CIN	ug/kg dry	20.5	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
2-Chlorotoluene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
4-Chlorotoluene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<51.2		ug/kg dry	51.2	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<51.2		ug/kg dry	51.2	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Dibromomethane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-21 (MW-18 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 11:30**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,3-Dichlorobenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<15.4		ug/kg dry	15.4	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,1-Dichloroethene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
cis-1,2-Dichloroethene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<20.5		ug/kg dry	20.5	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Ethylbenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<25.6		ug/kg dry	25.6	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Hexane	<25.6	ICV	ug/kg dry	25.6	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Isopropylbenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Methylene Chloride	<51.2		ug/kg dry	51.2	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Naphthalene	<25.6		ug/kg dry	25.6	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
n-Propylbenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Styrene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,1,2,2-Tetrachloroethane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Tetrachloroethene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Toluene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<25.6		ug/kg dry	25.6	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<25.6		ug/kg dry	25.6	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,1,2-Trichloroethane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Trichloroethene	**5.90**		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Trichlorofluoromethane	<20.5		ug/kg dry	20.5	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<5.12		ug/kg dry	5.12	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Vinyl chloride	<15.4		ug/kg dry	15.4	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Xylenes, total	<15.4		ug/kg dry	15.4	0.848	04/08/11 12:09	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*91 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*95 %*								

TestAmerica Cedar Falls
Derrick Klinkenberg
Organics Manager

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-21 (MW-18 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 11:30**		**Recvd: 04/01/11 09:31**		
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	243	04/07/11 19:54	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 02:31	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.995	04/06/11 02:31	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.995	04/06/11 02:31	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.995	04/06/11 02:31	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*94 %*								
HEM									
HEM (Oil & Grease)	**190**	J, Ba	mg/Kg dry	550	1	04/11/11 05:07	MTB	109897	9071B OG Dry
Sample ID: CUD0086-22 (MW-18 2.5-5 - Soil)					**Sampled: 03/30/11 11:35**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**87.3**		%	0.100	1	04/05/11 14:30	sas	11D0155	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**4.79**		mg/kg dry	1.04	0.908	04/11/11 23:31	kmd	11D0218	SW 7060A
Barium	**97.9**		mg/kg dry	1.72	2.73	04/17/11 17:57	cjt	11D0253	SW 6010B
Cadmium	<3.44	IE	mg/kg dry	3.44	2.73	04/17/11 17:57	cjt	11D0253	SW 6010B
Chromium	**14.3**		mg/kg dry	3.44	2.73	04/17/11 17:57	cjt	11D0253	SW 6010B
Lead	<17.2	IE	mg/kg dry	17.2	2.73	04/17/11 17:57	cjt	11D0253	SW 6010B
Mercury	<0.0229		mg/kg dry	0.0229	0.966	04/06/11 13:07	kmd	11D0190	SW 7471A
Selenium	<25.8	IE	mg/kg dry	25.8	2.73	04/17/11 17:57	cjt	11D0253	SW 6010B
Silver	<3.44	IE	mg/kg dry	3.44	2.73	04/17/11 17:57	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<48.7		ug/kg dry	48.7	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Acrylonitrile	<48.7		ug/kg dry	48.7	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Benzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Bromobenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Bromochloromethane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Bromodichloromethane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Bromoform	<9.74		ug/kg dry	9.74	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Bromomethane	<19.5		ug/kg dry	19.5	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
2-Butanone (MEK)	<48.7		ug/kg dry	48.7	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
n-Butylbenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
sec-Butylbenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
tert-Butylbenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Carbon disulfide	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Chlorobenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Chlorodibromomethane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Chloroethane	<19.5		ug/kg dry	19.5	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Chloroform	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Chloromethane	<19.5	CIN	ug/kg dry	19.5	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
2-Chlorotoluene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B

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670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Sample ID: CUD0086-22 (MW-18 2.5-5 - Soil) - cont. **Sampled: 03/30/11 11:35** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
4-Chlorotoluene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<48.7		ug/kg dry	48.7	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<48.7		ug/kg dry	48.7	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Dibromomethane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,3-Dichlorobenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<14.6		ug/kg dry	14.6	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,1-Dichloroethene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
cis-1,2-Dichloroethene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<19.5		ug/kg dry	19.5	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Ethylbenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<24.4		ug/kg dry	24.4	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Hexane	<24.4	ICV	ug/kg dry	24.4	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Isopropylbenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Methylene Chloride	<48.7		ug/kg dry	48.7	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Naphthalene	<24.4		ug/kg dry	24.4	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
n-Propylbenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Styrene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,1,2,2-Tetrachloroethane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Tetrachloroethene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Toluene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<24.4		ug/kg dry	24.4	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<24.4		ug/kg dry	24.4	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,1,2-Trichloroethane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Trichloroethene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Trichlorofluoromethane	<19.5		ug/kg dry	19.5	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<4.87		ug/kg dry	4.87	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B

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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-22 (MW-18 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 11:35**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Vinyl chloride	<14.6		ug/kg dry	14.6	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Xylenes, total	<14.6		ug/kg dry	14.6	0.85	04/08/11 12:32	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*87 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*98 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	246	04/07/11 20:29	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 03:15	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.992	04/06/11 03:15	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.992	04/06/11 03:15	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.992	04/06/11 03:15	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*89 %*								
Polychlorinated Biphenyls by EPA Method 8082									
PCB-1016	<0.0573		mg/kg dry	0.0573	0.985	04/05/11 19:12	jar	11D0081	SW 8082
PCB-1221	<0.0573		mg/kg dry	0.0573	0.985	04/05/11 19:12	jar	11D0081	SW 8082
PCB-1232	<0.0573		mg/kg dry	0.0573	0.985	04/05/11 19:12	jar	11D0081	SW 8082
PCB-1242	<0.0573		mg/kg dry	0.0573	0.985	04/05/11 19:12	jar	11D0081	SW 8082
PCB-1248	<0.0573		mg/kg dry	0.0573	0.985	04/05/11 19:12	jar	11D0081	SW 8082
PCB-1254	<0.0573		mg/kg dry	0.0573	0.985	04/05/11 19:12	jar	11D0081	SW 8082
PCB-1260	<0.0573		mg/kg dry	0.0573	0.985	04/05/11 19:12	jar	11D0081	SW 8082
PCB-1268	<0.0573		mg/kg dry	0.0573	0.985	04/05/11 19:12	jar	11D0081	SW 8082
Surr: Decachlorobiphenyl (55-120%)	*65 %*								
Surr: Tetrachloro-meta-xylene (45-105%)	*56 %*								
HEM									
HEM (Oil & Grease)	**220**	J, Ba	mg/Kg dry	570	1	04/11/11 05:13	MTB	109897	9071B OG Dry
Sample ID: CUD0086-23 (MW-18 5-7.5 - Soil)					**Sampled: 03/30/11 11:45**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.8**		%	0.100	1	04/05/11 14:34	sas	11D0156	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**4.69**		mg/kg dry	1.15	0.943	04/11/11 23:37	kmd	11D0218	SW 7060A
Barium	**59.6**		mg/kg dry	2.88	4.57	04/17/11 18:01	cjt	11D0253	SW 6010B
Cadmium	<5.76	IE	mg/kg dry	5.76	4.57	04/17/11 18:01	cjt	11D0253	SW 6010B
Chromium	**14.8**		mg/kg dry	5.76	4.57	04/17/11 18:01	cjt	11D0253	SW 6010B
Lead	<28.8	IE	mg/kg dry	28.8	4.57	04/17/11 18:01	cjt	11D0253	SW 6010B
Mercury	<0.0230		mg/kg dry	0.0230	0.966	04/06/11 13:13	kmd	11D0190	SW 7471A
Selenium	<43.2	IE	mg/kg dry	43.2	4.57	04/17/11 18:01	cjt	11D0253	SW 6010B
Silver	<5.76	IE	mg/kg dry	5.76	4.57	04/17/11 18:01	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<48.2		ug/kg dry	48.2	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Acrylonitrile	<48.2		ug/kg dry	48.2	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Benzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Sample ID: CUD0086-23 (MW-18 5-7.5 - Soil) - cont. **Sampled: 03/30/11 11:45** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Bromobenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Bromochloromethane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Bromodichloromethane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Bromoform	<9.64		ug/kg dry	9.64	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Bromomethane	<19.3		ug/kg dry	19.3	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
2-Butanone (MEK)	<48.2		ug/kg dry	48.2	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
n-Butylbenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
sec-Butylbenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
tert-Butylbenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Carbon disulfide	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Chlorobenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Chlorodibromomethane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Chloroethane	<19.3		ug/kg dry	19.3	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Chloroform	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Chloromethane	<19.3	CIN	ug/kg dry	19.3	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
2-Chlorotoluene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
4-Chlorotoluene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<48.2		ug/kg dry	48.2	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<48.2		ug/kg dry	48.2	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Dibromomethane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,3-Dichlorobenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<14.5		ug/kg dry	14.5	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,1-Dichloroethene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
cis-1,2-Dichloroethene	**16.7**		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<19.3		ug/kg dry	19.3	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Ethylbenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<24.1		ug/kg dry	24.1	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Hexane	<24.1	ICV	ug/kg dry	24.1	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Isopropylbenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Methylene Chloride	<48.2		ug/kg dry	48.2	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-23 (MW-18 5-7.5 - Soil) - cont.					**Sampled: 03/30/11 11:45**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
Methyl tert-Butyl Ether	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Naphthalene	<24.1		ug/kg dry	24.1	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
n-Propylbenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Styrene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,1,2,2-Tetrachloroethane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Tetrachloroethene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Toluene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<24.1		ug/kg dry	24.1	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<24.1		ug/kg dry	24.1	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,1,2-Trichloroethane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Trichloroethene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Trichlorofluoromethane	<19.3		ug/kg dry	19.3	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<4.82		ug/kg dry	4.82	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Vinyl chloride	<14.5		ug/kg dry	14.5	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Xylenes, total	<14.5		ug/kg dry	14.5	0.837	04/08/11 12:55	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*87 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*101 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	239	04/07/11 21:04	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 03:58	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.985	04/06/11 03:58	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.985	04/06/11 03:58	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.985	04/06/11 03:58	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*91 %*								
HEM									
HEM (Oil & Grease)	**760**	Ba	mg/Kg dry	570	1	04/11/11 05:31	MTB	109897	9071B OG Dry

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-24 (MW-18 7.5-10 - Soil)					**Sampled: 03/30/11 11:50**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.4**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**3.56**		mg/kg dry	1.16	0.914	04/11/11 23:47	kmd	11D0218	SW 7060A
Barium	**104**		mg/kg dry	0.578	0.926	04/17/11 18:06	cjt	11D0253	SW 6010B
Cadmium	<1.16		mg/kg dry	1.16	0.926	04/17/11 18:06	cjt	11D0253	SW 6010B
Chromium	**18.2**		mg/kg dry	1.16	0.926	04/17/11 18:06	cjt	11D0253	SW 6010B
Lead	<5.78		mg/kg dry	5.78	0.926	04/17/11 18:06	cjt	11D0253	SW 6010B
Mercury	<0.0209		mg/kg dry	0.0209	0.904	04/06/11 13:14	kmd	11D0190	SW 7471A
Selenium	<8.68		mg/kg dry	8.68	0.926	04/17/11 18:06	cjt	11D0253	SW 6010B
Silver	<1.16		mg/kg dry	1.16	0.926	04/17/11 18:06	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<45.4		ug/kg dry	45.4	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Acrylonitrile	<45.4		ug/kg dry	45.4	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Benzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Bromobenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Bromochloromethane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Bromodichloromethane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Bromoform	<9.08		ug/kg dry	9.08	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Bromomethane	<18.2		ug/kg dry	18.2	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
2-Butanone (MEK)	<45.4		ug/kg dry	45.4	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
n-Butylbenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
sec-Butylbenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
tert-Butylbenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Carbon disulfide	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Chlorobenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Chlorodibromomethane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Chloroethane	<18.2		ug/kg dry	18.2	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Chloroform	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Chloromethane	<18.2	CIN	ug/kg dry	18.2	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
2-Chlorotoluene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
4-Chlorotoluene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<45.4		ug/kg dry	45.4	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<45.4		ug/kg dry	45.4	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Dibromomethane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,3-Dichlorobenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<13.6		ug/kg dry	13.6	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,1-Dichloroethene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-24 (MW-18 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 11:50**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
cis-1,2-Dichloroethene	**39.2**		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<18.2		ug/kg dry	18.2	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Ethylbenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<22.7		ug/kg dry	22.7	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Hexane	<22.7	ICV	ug/kg dry	22.7	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Isopropylbenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Methylene Chloride	<45.4		ug/kg dry	45.4	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Naphthalene	<22.7		ug/kg dry	22.7	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
n-Propylbenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Styrene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,1,2,2-Tetrachloroethane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Tetrachloroethene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Toluene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<22.7		ug/kg dry	22.7	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<22.7		ug/kg dry	22.7	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,1,2-Trichloroethane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Trichloroethene	**42.8**		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Trichlorofluoromethane	<18.2		ug/kg dry	18.2	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<4.54		ug/kg dry	4.54	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Vinyl chloride	<13.6		ug/kg dry	13.6	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Xylenes, total	<13.6		ug/kg dry	13.6	0.785	04/08/11 13:18	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*87 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*99 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	248	04/07/11 21:39	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 04:41	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.996	04/06/11 04:41	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.996	04/06/11 04:41	jdb	11D0082	OA-2 - 8015B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-24 (MW-18 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 11:50**		**Recvd: 04/01/11 09:31**		
UST ANALYSIS PARAMETERS - cont.									
Motor Oil	<10.0		mg/kg	10.0	0.996	04/06/11 04:41	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*86 %*								
HEM									
HEM (Oil & Grease)	**610**	Ba	mg/Kg dry	580	1	04/11/11 05:37	MTB	109897	9071B OG Dry
Sample ID: CUD0086-25 (MW-18 10-12 - Soil)					**Sampled: 03/30/11 12:00**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**88.0**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**4.23**		mg/kg dry	1.14	0.951	04/11/11 23:50	kmd	11D0218	SW 7060A
Barium	**92.2**		mg/kg dry	0.568	0.929	04/17/11 18:11	cjt	11D0253	SW 6010B
Cadmium	<1.14		mg/kg dry	1.14	0.929	04/17/11 18:11	cjt	11D0253	SW 6010B
Chromium	**16.9**		mg/kg dry	1.14	0.929	04/17/11 18:11	cjt	11D0253	SW 6010B
Lead	<5.68		mg/kg dry	5.68	0.929	04/17/11 18:11	cjt	11D0253	SW 6010B
Mercury	<0.0227		mg/kg dry	0.0227	0.927	04/06/11 13:16	kmd	11D0190	SW 7471A
Selenium	<8.53		mg/kg dry	8.53	0.929	04/17/11 18:11	cjt	11D0253	SW 6010B
Silver	<1.14		mg/kg dry	1.14	0.929	04/17/11 18:11	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<50.5		ug/kg dry	50.5	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Acrylonitrile	<50.5		ug/kg dry	50.5	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Benzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Bromobenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Bromochloromethane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Bromodichloromethane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Bromoform	<10.1		ug/kg dry	10.1	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Bromomethane	<20.2		ug/kg dry	20.2	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
2-Butanone (MEK)	<50.5		ug/kg dry	50.5	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
n-Butylbenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
sec-Butylbenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
tert-Butylbenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Carbon disulfide	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Chlorobenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Chlorodibromomethane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Chloroethane	<20.2		ug/kg dry	20.2	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Chloroform	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Chloromethane	<20.2	CIN	ug/kg dry	20.2	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
2-Chlorotoluene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
4-Chlorotoluene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<50.5		ug/kg dry	50.5	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<50.5		ug/kg dry	50.5	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Dibromomethane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-25 (MW-18 10-12 - Soil) - cont.					**Sampled: 03/30/11 12:00**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
1,3-Dichlorobenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<15.1		ug/kg dry	15.1	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,1-Dichloroethene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
cis-1,2-Dichloroethene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<20.2		ug/kg dry	20.2	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Ethylbenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<25.2		ug/kg dry	25.2	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Hexane	<25.2	ICV	ug/kg dry	25.2	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Isopropylbenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Methylene Chloride	<50.5		ug/kg dry	50.5	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Naphthalene	<25.2		ug/kg dry	25.2	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
n-Propylbenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Styrene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,1,2,2-Tetrachloroethane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Tetrachloroethene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Toluene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<25.2		ug/kg dry	25.2	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<25.2		ug/kg dry	25.2	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,1,2-Trichloroethane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Trichloroethene	**145**		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Trichlorofluoromethane	<20.2		ug/kg dry	20.2	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<5.05		ug/kg dry	5.05	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Vinyl chloride	<15.1		ug/kg dry	15.1	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Xylenes, total	<15.1		ug/kg dry	15.1	0.888	04/08/11 13:41	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*88 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*101 %*								

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-25 (MW-18 10-12 - Soil) - cont.					**Sampled: 03/30/11 12:00**		**Recvd: 04/01/11 09:31**		
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	249	04/07/11 22:14	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 05:24	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.972	04/06/11 05:24	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.972	04/06/11 05:24	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.972	04/06/11 05:24	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*86 %*								
HEM									
HEM (Oil & Grease)	**290**	J, Ba	mg/Kg dry	550	1	04/11/11 05:43	MTB	109897	9071B OG Dry
Sample ID: CUD0086-26 (MW-19 0-2.5 - Soil)					**Sampled: 03/30/11 13:10**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.5**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.39**		mg/kg dry	1.16	0.999	04/11/11 23:53	kmd	11D0218	SW 7060A
Barium	**87.2**		mg/kg dry	1.73	2.85	04/18/11 17:59	cjt	11D0253	SW 6010B
Cadmium	<3.47	IE	mg/kg dry	3.47	2.85	04/18/11 17:59	cjt	11D0253	SW 6010B
Chromium	**16.4**		mg/kg dry	3.47	2.85	04/18/11 17:59	cjt	11D0253	SW 6010B
Lead	<17.3	IE	mg/kg dry	17.3	2.85	04/18/11 17:59	cjt	11D0253	SW 6010B
Mercury	<0.0231		mg/kg dry	0.0231	0.976	04/06/11 13:18	kmd	11D0190	SW 7471A
Selenium	<26.0	IE	mg/kg dry	26.0	2.85	04/18/11 17:59	cjt	11D0253	SW 6010B
Silver	<3.47	IE	mg/kg dry	3.47	2.85	04/18/11 17:59	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<57.8		ug/kg dry	57.8	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Acrylonitrile	<57.8		ug/kg dry	57.8	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Benzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Bromobenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Bromochloromethane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Bromodichloromethane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Bromoform	<11.6		ug/kg dry	11.6	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Bromomethane	<23.1		ug/kg dry	23.1	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
2-Butanone (MEK)	<57.8		ug/kg dry	57.8	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
n-Butylbenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
sec-Butylbenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
tert-Butylbenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Carbon disulfide	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Chlorobenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Chlorodibromomethane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Chloroethane	<23.1		ug/kg dry	23.1	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Chloroform	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Chloromethane	<23.1	CIN	ug/kg dry	23.1	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
2-Chlorotoluene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Sample ID: CUD0086-26 (MW-19 0-2.5 - Soil) - cont. **Sampled: 03/30/11 13:10** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
4-Chlorotoluene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<57.8		ug/kg dry	57.8	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<57.8		ug/kg dry	57.8	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Dibromomethane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,3-Dichlorobenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<17.3		ug/kg dry	17.3	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,1-Dichloroethene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
cis-1,2-Dichloroethene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<23.1		ug/kg dry	23.1	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Ethylbenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<28.9		ug/kg dry	28.9	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Hexane	<28.9	ICV	ug/kg dry	28.9	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Isopropylbenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Methylene Chloride	<57.8		ug/kg dry	57.8	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Naphthalene	<28.9		ug/kg dry	28.9	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
n-Propylbenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Styrene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,1,2,2-Tetrachloroethane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Tetrachloroethene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Toluene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<28.9		ug/kg dry	28.9	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<28.9		ug/kg dry	28.9	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,1,2-Trichloroethane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Trichloroethene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Trichlorofluoromethane	<23.1		ug/kg dry	23.1	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<5.78		ug/kg dry	5.78	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-26 (MW-19 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 13:10**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Vinyl chloride	<17.3		ug/kg dry	17.3	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Xylenes, total	<17.3		ug/kg dry	17.3	0.941	04/08/11 14:04	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*86 %*								
Surr: Toluene-d8 (80-120%)	*98 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*99 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	240	04/07/11 22:49	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 06:07	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.972	04/06/11 06:07	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.972	04/06/11 06:07	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.972	04/06/11 06:07	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*87 %*								
HEM									
HEM (Oil & Grease)	**360**	J, Ba	mg/Kg dry	560	1	04/11/11 05:49	MTB	109897	9071B OG Dry
Sample ID: CUD0086-27 (MW-19 2.5-5 - Soil)					**Sampled: 03/30/11 13:20**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**87.2**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**5.39**		mg/kg dry	1.15	0.941	04/11/11 23:56	kmd	11D0218	SW 7060A
Barium	**74.1**		mg/kg dry	0.574	0.912	04/17/11 18:36	cjt	11D0253	SW 6010B
Cadmium	<1.15		mg/kg dry	1.15	0.912	04/17/11 18:36	cjt	11D0253	SW 6010B
Chromium	**16.5**		mg/kg dry	1.15	0.912	04/17/11 18:36	cjt	11D0253	SW 6010B
Lead	<5.74		mg/kg dry	5.74	0.912	04/17/11 18:36	cjt	11D0253	SW 6010B
Mercury	<0.0229		mg/kg dry	0.0229	0.976	04/06/11 13:20	kmd	11D0190	SW 7471A
Selenium	<8.61		mg/kg dry	8.61	0.912	04/17/11 18:36	cjt	11D0253	SW 6010B
Silver	<1.15		mg/kg dry	1.15	0.912	04/17/11 18:36	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<44.1		ug/kg dry	44.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Acrylonitrile	<44.1		ug/kg dry	44.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Benzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Bromobenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Bromochloromethane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Bromodichloromethane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Bromoform	<8.82		ug/kg dry	8.82	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Bromomethane	<17.6		ug/kg dry	17.6	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
2-Butanone (MEK)	<44.1		ug/kg dry	44.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
n-Butylbenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
sec-Butylbenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
tert-Butylbenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Carbon disulfide	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Sample ID: CUD0086-27 (MW-19 2.5-5 - Soil) - cont. **Sampled: 03/30/11 13:20** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Chlorobenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Chlorodibromomethane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Chloroethane	<17.6		ug/kg dry	17.6	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Chloroform	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Chloromethane	<17.6	CIN	ug/kg dry	17.6	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
2-Chlorotoluene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
4-Chlorotoluene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<44.1		ug/kg dry	44.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<44.1		ug/kg dry	44.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Dibromomethane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,3-Dichlorobenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<13.2		ug/kg dry	13.2	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,1-Dichloroethene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
cis-1,2-Dichloroethene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<17.6		ug/kg dry	17.6	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Ethylbenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<22.1		ug/kg dry	22.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Hexane	<22.1	ICV	ug/kg dry	22.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Isopropylbenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Methylene Chloride	<44.1		ug/kg dry	44.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Naphthalene	<22.1		ug/kg dry	22.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
n-Propylbenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Styrene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,1,2,2-Tetrachloroethane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Tetrachloroethene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Toluene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<22.1		ug/kg dry	22.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<22.1		ug/kg dry	22.1	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-27 (MW-19 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 13:20**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2-Trichloroethane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Trichloroethene	**7.87**		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Trichlorofluoromethane	<17.6		ug/kg dry	17.6	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<4.41		ug/kg dry	4.41	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Vinyl chloride	<13.2		ug/kg dry	13.2	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Xylenes, total	<13.2		ug/kg dry	13.2	0.769	04/08/11 14:27	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*87 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*98 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	235	04/07/11 23:25	cmm	11D0350	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 06:51	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.982	04/06/11 06:51	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.982	04/06/11 06:51	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.982	04/06/11 06:51	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*88 %*								
HEM									
HEM (Oil & Grease)	**310**	J, Ba	mg/Kg dry	560	1	04/11/11 05:55	MTB	109897	9071B OG Dry
Sample ID: CUD0086-28 (MW-19 5-10 - Soil)					**Sampled: 03/30/11 13:25**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.2**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**2.81**		mg/kg dry	1.16	0.981	04/12/11 00:00	kmd	11D0218	SW 7060A
Barium	**58.5**		mg/kg dry	1.74	2.87	04/18/11 18:04	cjt	11D0253	SW 6010B
Cadmium	<3.48	IE	mg/kg dry	3.48	2.87	04/18/11 18:04	cjt	11D0253	SW 6010B
Chromium	**16.7**		mg/kg dry	3.48	2.87	04/18/11 18:04	cjt	11D0253	SW 6010B
Lead	<17.4	IE	mg/kg dry	17.4	2.87	04/18/11 18:04	cjt	11D0253	SW 6010B
Mercury	<0.0232		mg/kg dry	0.0232	0.915	04/06/11 13:21	kmd	11D0190	SW 7471A
Selenium	<26.1	IE	mg/kg dry	26.1	2.87	04/18/11 18:04	cjt	11D0253	SW 6010B
Silver	<3.48	IE	mg/kg dry	3.48	2.87	04/18/11 18:04	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<44.3		ug/kg dry	44.3	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Acrylonitrile	<44.3		ug/kg dry	44.3	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Benzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Bromobenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Bromochloromethane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Bromodichloromethane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Bromoform	<8.86		ug/kg dry	8.86	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Bromomethane	<17.7		ug/kg dry	17.7	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B

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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-28 (MW-19 5-10 - Soil) - cont.					**Sampled: 03/30/11 13:25**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
2-Butanone (MEK)	<44.3		ug/kg dry	44.3	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
n-Butylbenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
sec-Butylbenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
tert-Butylbenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Carbon disulfide	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Chlorobenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Chlorodibromomethane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Chloroethane	<17.7		ug/kg dry	17.7	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Chloroform	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Chloromethane	<17.7	CIN	ug/kg dry	17.7	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
2-Chlorotoluene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
4-Chlorotoluene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<44.3		ug/kg dry	44.3	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<44.3		ug/kg dry	44.3	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Dibromomethane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,3-Dichlorobenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<13.3		ug/kg dry	13.3	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,1-Dichloroethene	**258**		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
cis-1,2-Dichloroethene	**6.08**		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<17.7		ug/kg dry	17.7	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Ethylbenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<22.2		ug/kg dry	22.2	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Hexane	<22.2	ICV	ug/kg dry	22.2	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Isopropylbenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Methylene Chloride	<44.3		ug/kg dry	44.3	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Naphthalene	<22.2		ug/kg dry	22.2	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
n-Propylbenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Styrene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-28 (MW-19 5-10 - Soil) - cont.					**Sampled: 03/30/11 13:25**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2,2-Tetrachloroethane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Tetrachloroethene	**161**		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Toluene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<22.2		ug/kg dry	22.2	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<22.2		ug/kg dry	22.2	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	**1300**		ug/kg dry	507	87.3	04/12/11 14:53	sjn	11D0555	SW 8260B
1,1,2-Trichloroethane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Trichloroethene	**47100**		ug/kg dry	507	87.3	04/12/11 14:53	sjn	11D0555	SW 8260B
Trichlorofluoromethane	<17.7		ug/kg dry	17.7	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<4.43		ug/kg dry	4.43	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Vinyl chloride	<13.3		ug/kg dry	13.3	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Xylenes, total	<13.3		ug/kg dry	13.3	0.764	04/08/11 14:50	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*91 %*								
Surr: Dibromofluoromethane (75-125%)	*101 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*98 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	**12.8**	B	mg/kg	10.0	250	04/11/11 19:08	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 07:34	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.986	04/06/11 07:34	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.986	04/06/11 07:34	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.986	04/06/11 07:34	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*86 %*								
HEM									
HEM (Oil & Grease)	**270**	J, Ba	mg/Kg dry	570	1	04/11/11 06:01	MTB	109897	9071B OG Dry
Sample ID: CUD0086-29 (MW-19 10-12 - Soil)					**Sampled: 03/30/11 13:35**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**87.0**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**2.68**		mg/kg dry	1.15	0.955	04/12/11 00:03	kmd	11D0218	SW 7060A
Barium	**48.7**		mg/kg dry	1.73	2.74	04/18/11 18:09	cjt	11D0253	SW 6010B
Cadmium	<3.45	IE	mg/kg dry	3.45	2.74	04/18/11 18:09	cjt	11D0253	SW 6010B
Chromium	**13.3**		mg/kg dry	3.45	2.74	04/18/11 18:09	cjt	11D0253	SW 6010B
Lead	<17.3	IE	mg/kg dry	17.3	2.74	04/18/11 18:09	cjt	11D0253	SW 6010B
Mercury	<0.0230		mg/kg dry	0.0230	0.917	04/06/11 13:23	kmd	11D0190	SW 7471A
Selenium	<25.9	IE	mg/kg dry	25.9	2.74	04/18/11 18:09	cjt	11D0253	SW 6010B
Silver	<3.45	IE	mg/kg dry	3.45	2.74	04/18/11 18:09	cjt	11D0253	SW 6010B

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-29 (MW-19 10-12 - Soil) - cont.					**Sampled: 03/30/11 13:35**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds									
Acetone	<45.0		ug/kg dry	45.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Acrylonitrile	<45.0		ug/kg dry	45.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Benzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Bromobenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Bromochloromethane	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Bromodichloromethane	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Bromoform	<9.00		ug/kg dry	9.00	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Bromomethane	<18.0		ug/kg dry	18.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
2-Butanone (MEK)	<45.0		ug/kg dry	45.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
n-Butylbenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
sec-Butylbenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
tert-Butylbenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Carbon disulfide	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Chlorobenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Chlorodibromomethane	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Chloroethane	<18.0		ug/kg dry	18.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Chloroform	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Chloromethane	<18.0	CIN	ug/kg dry	18.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
2-Chlorotoluene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
4-Chlorotoluene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<45.0		ug/kg dry	45.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<45.0		ug/kg dry	45.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Dibromomethane	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,3-Dichlorobenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<13.5		ug/kg dry	13.5	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,1-Dichloroethane	**13.5**		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,2-Dichloroethane	**6.79**		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,1-Dichloroethene	**2150**		ug/kg dry	421	73.2	04/12/11 15:19	sjn	11D0555	SW 8260B
cis-1,2-Dichloroethene	**8.21**		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<18.0		ug/kg dry	18.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Ethylbenzene	**19.0**		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<22.5		ug/kg dry	22.5	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Hexane	<22.5	ICV	ug/kg dry	22.5	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-29 (MW-19 10-12 - Soil) - cont.					**Sampled: 03/30/11 13:35**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Isopropylbenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Methylene Chloride	<45.0		ug/kg dry	45.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Naphthalene	<22.5		ug/kg dry	22.5	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
n-Propylbenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Styrene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,1,2,2-Tetrachloroethane	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Tetrachloroethene	**214**		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Toluene	**25.9**		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<22.5		ug/kg dry	22.5	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<22.5		ug/kg dry	22.5	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	**5870**		ug/kg dry	421	73.2	04/12/11 15:19	sjn	11D0555	SW 8260B
1,1,2-Trichloroethane	**23.8**		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Trichloroethene	**159000**		ug/kg dry	8420	1460	04/13/11 09:47	sjn	11D0560	SW 8260B
Trichlorofluoromethane	<18.0		ug/kg dry	18.0	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<4.50		ug/kg dry	4.50	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Vinyl chloride	<13.5		ug/kg dry	13.5	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Xylenes, total	**94.4**		ug/kg dry	13.5	0.782	04/08/11 15:14	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*94 %*								
Surr: Dibromofluoromethane (75-125%)	*108 %*								
Surr: Dibromofluoromethane (75-125%)	*83 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*96 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*104 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	233	04/11/11 19:43	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 08:17	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.973	04/06/11 08:17	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.973	04/06/11 08:17	jdb	11D0082	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.973	04/06/11 08:17	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*89 %*								
Polychlorinated Biphenyls by EPA Method 8082									
PCB-1016	<0.0575		mg/kg dry	0.0575	0.976	04/05/11 19:23	jar	11D0081	SW 8082
PCB-1221	<0.0575		mg/kg dry	0.0575	0.976	04/05/11 19:23	jar	11D0081	SW 8082
PCB-1232	<0.0575		mg/kg dry	0.0575	0.976	04/05/11 19:23	jar	11D0081	SW 8082

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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-29 (MW-19 10-12 - Soil) - cont.					**Sampled: 03/30/11 13:35**		**Recvd: 04/01/11 09:31**		
Polychlorinated Biphenyls by EPA Method 8082 - cont.									
PCB-1242	<0.0575		mg/kg dry	0.0575	0.976	04/05/11 19:23	jar	11D0081	SW 8082
PCB-1248	<0.0575		mg/kg dry	0.0575	0.976	04/05/11 19:23	jar	11D0081	SW 8082
PCB-1254	<0.0575		mg/kg dry	0.0575	0.976	04/05/11 19:23	jar	11D0081	SW 8082
PCB-1260	<0.0575		mg/kg dry	0.0575	0.976	04/05/11 19:23	jar	11D0081	SW 8082
PCB-1268	<0.0575		mg/kg dry	0.0575	0.976	04/05/11 19:23	jar	11D0081	SW 8082
Surr: Decachlorobiphenyl (55-120%)	*66 %*								
Surr: Tetrachloro-meta-xylene (45-105%)	*57 %*								
HEM									
HEM (Oil & Grease)	**450**	J, Ba	mg/Kg dry	560	1	04/11/11 06:07	MTB	109897	9071B OG Dry
Sample ID: CUD0086-30 (MW-20 0-2.5 - Soil)					**Sampled: 03/30/11 14:15**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**87.2**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**8.76**		mg/kg dry	1.15	0.929	04/12/11 00:06	kmd	11D0218	SW 7060A
Barium	**83.6**		mg/kg dry	0.573	0.987	04/17/11 18:52	cjt	11D0253	SW 6010B
Cadmium	<1.15		mg/kg dry	1.15	0.987	04/17/11 18:52	cjt	11D0253	SW 6010B
Chromium	**14.9**		mg/kg dry	1.15	0.987	04/17/11 18:52	cjt	11D0253	SW 6010B
Lead	<5.73		mg/kg dry	5.73	0.987	04/17/11 18:52	cjt	11D0253	SW 6010B
Mercury	**0.0234**		mg/kg dry	0.0229	0.969	04/06/11 13:25	kmd	11D0190	SW 7471A
Selenium	<8.60		mg/kg dry	8.60	0.987	04/17/11 18:52	cjt	11D0253	SW 6010B
Silver	<1.15	M1	mg/kg dry	1.15	0.987	04/17/11 18:52	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	**182**		ug/kg dry	50.7	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Acrylonitrile	<50.7		ug/kg dry	50.7	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Benzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Bromobenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Bromochloromethane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Bromodichloromethane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Bromoform	<10.1		ug/kg dry	10.1	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Bromomethane	<20.3		ug/kg dry	20.3	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
2-Butanone (MEK)	<50.7		ug/kg dry	50.7	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
n-Butylbenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
sec-Butylbenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
tert-Butylbenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Carbon disulfide	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Chlorobenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Chlorodibromomethane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Chloroethane	<20.3		ug/kg dry	20.3	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Chloroform	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Chloromethane	<20.3	CIN	ug/kg dry	20.3	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
2-Chlorotoluene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Sample ID: CUD0086-30 (MW-20 0-2.5 - Soil) - cont. **Sampled: 03/30/11 14:15** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
4-Chlorotoluene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<50.7		ug/kg dry	50.7	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<50.7		ug/kg dry	50.7	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Dibromomethane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,3-Dichlorobenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<15.2		ug/kg dry	15.2	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,1-Dichloroethene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
cis-1,2-Dichloroethene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<20.3		ug/kg dry	20.3	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Ethylbenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<25.4		ug/kg dry	25.4	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Hexane	<25.4	ICV	ug/kg dry	25.4	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Isopropylbenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Methylene Chloride	<50.7		ug/kg dry	50.7	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Naphthalene	<25.4		ug/kg dry	25.4	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
n-Propylbenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Styrene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,1,2,2-Tetrachloroethane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Tetrachloroethene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Toluene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<25.4		ug/kg dry	25.4	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<25.4		ug/kg dry	25.4	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,1,2-Trichloroethane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Trichloroethene	**77.0**		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Trichlorofluoromethane	<20.3		ug/kg dry	20.3	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<5.07		ug/kg dry	5.07	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-30 (MW-20 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 14:15**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Vinyl chloride	<15.2		ug/kg dry	15.2	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Xylenes, total	<15.2		ug/kg dry	15.2	0.885	04/08/11 15:37	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*92 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*98 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	248	04/11/11 20:19	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**39.4**		mg/kg	10.0	1	04/06/11 12:36	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.991	04/06/11 12:36	jdb	11D0082	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.991	04/06/11 12:36	jdb	11D0082	OA-2 - 8015B
Motor Oil	**39.4**		mg/kg	10.0	0.991	04/06/11 12:36	jdb	11D0082	OA-2 - 8015B
Surr: Octacosane (50-150%)	*133 %*								
HEM									
HEM (Oil & Grease)	**430**	J, Ba	mg/Kg dry	560	1	04/11/11 06:13	MTB	109897	9071B OG Dry
Sample ID: CUD0086-31 (MW-20 2.5-5 - Soil)					**Sampled: 03/30/11 14:25**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**80.2**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	<1.25	M1	mg/kg dry	1.25	0.99	04/12/11 00:15	kmd	11D0274	SW 7060A
Barium	**135**		mg/kg dry	1.87	2.95	04/17/11 19:02	cjt	11D0253	SW 6010B
Cadmium	<3.74	IE	mg/kg dry	3.74	2.95	04/17/11 19:02	cjt	11D0253	SW 6010B
Chromium	**25.6**		mg/kg dry	3.74	2.95	04/17/11 19:02	cjt	11D0253	SW 6010B
Lead	<18.7	IE	mg/kg dry	18.7	2.95	04/17/11 19:02	cjt	11D0253	SW 6010B
Mercury	**0.0270**		mg/kg dry	0.0220	0.884	04/06/11 13:27	kmd	11D0190	SW 7471A
Selenium	<28.0	IE	mg/kg dry	28.0	2.95	04/17/11 19:02	cjt	11D0253	SW 6010B
Silver	<3.74	IE	mg/kg dry	3.74	2.95	04/17/11 19:02	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<50.5		ug/kg dry	50.5	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Acrylonitrile	<50.5		ug/kg dry	50.5	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Benzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Bromobenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Bromochloromethane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Bromodichloromethane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Bromoform	<10.1		ug/kg dry	10.1	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Bromomethane	<20.2		ug/kg dry	20.2	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
2-Butanone (MEK)	<50.5		ug/kg dry	50.5	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
n-Butylbenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
sec-Butylbenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
tert-Butylbenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Carbon disulfide	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Project Number: 103-87305

Received: 04/01/11
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ANALYTICAL REPORT

Sample ID: CUD0086-31 (MW-20 2.5-5 - Soil) - cont. **Sampled: 03/30/11 14:25** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Chlorobenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Chlorodibromomethane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Chloroethane	<20.2		ug/kg dry	20.2	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Chloroform	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Chloromethane	<20.2	CIN	ug/kg dry	20.2	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
2-Chlorotoluene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
4-Chlorotoluene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<50.5		ug/kg dry	50.5	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<50.5		ug/kg dry	50.5	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Dibromomethane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,3-Dichlorobenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<15.2		ug/kg dry	15.2	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,1-Dichloroethene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
cis-1,2-Dichloroethene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<20.2		ug/kg dry	20.2	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Ethylbenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<25.3		ug/kg dry	25.3	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Hexane	<25.3	ICV	ug/kg dry	25.3	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Isopropylbenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Methylene Chloride	<50.5		ug/kg dry	50.5	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Naphthalene	<25.3		ug/kg dry	25.3	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
n-Propylbenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Styrene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,1,2,2-Tetrachloroethane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Tetrachloroethene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Toluene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<25.3		ug/kg dry	25.3	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<25.3		ug/kg dry	25.3	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B

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Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-31 (MW-20 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 14:25**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2-Trichloroethane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Trichloroethene	**19.8**		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Trichlorofluoromethane	<20.2		ug/kg dry	20.2	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<5.05		ug/kg dry	5.05	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Vinyl chloride	<15.2		ug/kg dry	15.2	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Xylenes, total	<15.2		ug/kg dry	15.2	0.81	04/08/11 16:00	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*89 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	241	04/11/11 20:54	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 15:28	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.979	04/06/11 15:28	jdb	11D0140	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.979	04/06/11 15:28	jdb	11D0140	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.979	04/06/11 15:28	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*94 %*								
HEM									
HEM (Oil & Grease)	**330**	J, Ba	mg/Kg dry	620	1	04/11/11 06:19	MTB	109897	9071B OG Dry
Sample ID: CUD0086-32 (MW-20 5-7.5 - Soil)					**Sampled: 03/30/11 14:35**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.2**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.15**		mg/kg dry	1.16	0.995	04/12/11 00:34	kmd	11D0274	SW 7060A
Barium	**83.2**		mg/kg dry	0.580	0.929	04/17/11 19:12	cjt	11D0253	SW 6010B
Cadmium	<1.16		mg/kg dry	1.16	0.929	04/17/11 19:12	cjt	11D0253	SW 6010B
Chromium	**16.7**		mg/kg dry	1.16	0.929	04/17/11 19:12	cjt	11D0253	SW 6010B
Lead	<5.80		mg/kg dry	5.80	0.929	04/17/11 19:12	cjt	11D0253	SW 6010B
Mercury	<0.0232		mg/kg dry	0.0232	0.915	04/06/11 13:29	kmd	11D0190	SW 7471A
Selenium	<8.70		mg/kg dry	8.70	0.929	04/17/11 19:12	cjt	11D0253	SW 6010B
Silver	<1.16		mg/kg dry	1.16	0.929	04/17/11 19:12	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<41.0		ug/kg dry	41.0	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Acrylonitrile	<41.0		ug/kg dry	41.0	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Benzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Bromobenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Bromochloromethane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Bromodichloromethane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Bromoform	<8.20		ug/kg dry	8.20	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Bromomethane	<16.4		ug/kg dry	16.4	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-32 (MW-20 5-7.5 - Soil) - cont.					**Sampled: 03/30/11 14:35**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
2-Butanone (MEK)	<41.0		ug/kg dry	41.0	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
n-Butylbenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
sec-Butylbenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
tert-Butylbenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Carbon disulfide	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Carbon Tetrachloride	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Chlorobenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Chlorodibromomethane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Chloroethane	<16.4		ug/kg dry	16.4	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Chloroform	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Chloromethane	<16.4	CIN	ug/kg dry	16.4	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
2-Chlorotoluene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
4-Chlorotoluene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,2-Dibromo-3-chloropropane	<41.0		ug/kg dry	41.0	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,2-Dibromoethane (EDB)	<41.0		ug/kg dry	41.0	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Dibromomethane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,2-Dichlorobenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,3-Dichlorobenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,4-Dichlorobenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Dichlorodifluoromethane	<12.3		ug/kg dry	12.3	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,1-Dichloroethane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,2-Dichloroethane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,1-Dichloroethene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
cis-1,2-Dichloroethene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
trans-1,2-Dichloroethene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,2-Dichloropropane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,3-Dichloropropane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
2,2-Dichloropropane	<16.4		ug/kg dry	16.4	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,1-Dichloropropene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
cis-1,3-Dichloropropene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
trans-1,3-Dichloropropene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Ethylbenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Hexachlorobutadiene	<20.5		ug/kg dry	20.5	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Hexane	<20.5	ICV	ug/kg dry	20.5	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Isopropylbenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
p-Isopropyltoluene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Methylene Chloride	<41.0		ug/kg dry	41.0	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Methyl tert-Butyl Ether	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Naphthalene	<20.5		ug/kg dry	20.5	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
n-Propylbenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Styrene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,1,1,2-Tetrachloroethane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
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Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-32 (MW-20 5-7.5 - Soil) - cont.					**Sampled: 03/30/11 14:35**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2,2-Tetrachloroethane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Tetrachloroethene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Toluene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,2,3-Trichlorobenzene	<20.5		ug/kg dry	20.5	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,2,4-Trichlorobenzene	<20.5		ug/kg dry	20.5	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,1,1-Trichloroethane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,1,2-Trichloroethane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Trichloroethene	**8.57**		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Trichlorofluoromethane	<16.4		ug/kg dry	16.4	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,2,3-Trichloropropane	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,2,4-Trimethylbenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
1,3,5-Trimethylbenzene	<4.10		ug/kg dry	4.10	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Vinyl chloride	<12.3		ug/kg dry	12.3	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Xylenes, total	<12.3		ug/kg dry	12.3	0.707	04/08/11 16:22	FMK	11D0490	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*87 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*99 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	238	04/11/11 21:30	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 16:13	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.992	04/06/11 16:13	jdb	11D0140	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.992	04/06/11 16:13	jdb	11D0140	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.992	04/06/11 16:13	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*94 %*								
Polychlorinated Biphenyls by EPA Method 8082									
PCB-1016	<0.0580		mg/kg dry	0.0580	0.977	04/05/11 19:34	jar	11D0081	SW 8082
PCB-1221	<0.0580		mg/kg dry	0.0580	0.977	04/05/11 19:34	jar	11D0081	SW 8082
PCB-1232	<0.0580		mg/kg dry	0.0580	0.977	04/05/11 19:34	jar	11D0081	SW 8082
PCB-1242	<0.0580		mg/kg dry	0.0580	0.977	04/05/11 19:34	jar	11D0081	SW 8082
PCB-1248	<0.0580		mg/kg dry	0.0580	0.977	04/05/11 19:34	jar	11D0081	SW 8082
PCB-1254	<0.0580		mg/kg dry	0.0580	0.977	04/05/11 19:34	jar	11D0081	SW 8082
PCB-1260	<0.0580		mg/kg dry	0.0580	0.977	04/05/11 19:34	jar	11D0081	SW 8082
PCB-1268	<0.0580		mg/kg dry	0.0580	0.977	04/05/11 19:34	jar	11D0081	SW 8082
Surr: Decachlorobiphenyl (55-120%)	*66 %*								
Surr: Tetrachloro-meta-xylene (45-105%)	*59 %*								
HEM									
HEM (Oil & Grease)	**310**	J, Ba	mg/Kg dry	540	1	04/11/11 06:25	MTB	109897	9071B OG Dry

GOLDER ASSOCIATES - MANCHESTER, NH
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-33 (MW-20 7.5-10 - Soil)					**Sampled: 03/30/11 14:40**			**Recvd: 04/01/11 09:31**	
General Chemistry Parameters									
% Solids	**86.9**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**5.37**		mg/kg dry	1.15	0.943	04/12/11 00:37	kmd	11D0274	SW 7060A
Barium	**64.8**		mg/kg dry	0.575	0.956	04/17/11 19:17	cjt	11D0253	SW 6010B
Cadmium	<1.15		mg/kg dry	1.15	0.956	04/17/11 19:17	cjt	11D0253	SW 6010B
Chromium	**11.8**		mg/kg dry	1.15	0.956	04/17/11 19:17	cjt	11D0253	SW 6010B
Lead	<5.75		mg/kg dry	5.75	0.956	04/17/11 19:17	cjt	11D0253	SW 6010B
Mercury	<0.0230		mg/kg dry	0.0230	0.922	04/06/11 13:34	kmd	11D0190	SW 7471A
Selenium	<8.63		mg/kg dry	8.63	0.956	04/17/11 19:17	cjt	11D0253	SW 6010B
Silver	<1.15		mg/kg dry	1.15	0.956	04/17/11 19:17	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<45.4	L1	ug/kg dry	45.4	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Acrylonitrile	<45.4		ug/kg dry	45.4	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Benzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Bromobenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Bromochloromethane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Bromodichloromethane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Bromoform	<9.08		ug/kg dry	9.08	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Bromomethane	<18.2		ug/kg dry	18.2	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
2-Butanone (MEK)	<45.4		ug/kg dry	45.4	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
n-Butylbenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
sec-Butylbenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
tert-Butylbenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Carbon disulfide	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Carbon Tetrachloride	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Chlorobenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Chlorodibromomethane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Chloroethane	<18.2		ug/kg dry	18.2	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Chloroform	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Chloromethane	<18.2		ug/kg dry	18.2	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
2-Chlorotoluene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
4-Chlorotoluene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,2-Dibromo-3-chloropropane	<45.4		ug/kg dry	45.4	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,2-Dibromoethane (EDB)	<45.4		ug/kg dry	45.4	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Dibromomethane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,2-Dichlorobenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,3-Dichlorobenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,4-Dichlorobenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Dichlorodifluoromethane	<13.6		ug/kg dry	13.6	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,1-Dichloroethane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,2-Dichloroethane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,1-Dichloroethene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-33 (MW-20 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 14:40**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
cis-1,2-Dichloroethene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
trans-1,2-Dichloroethene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,2-Dichloropropane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,3-Dichloropropane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
2,2-Dichloropropane	<18.2		ug/kg dry	18.2	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,1-Dichloropropene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
cis-1,3-Dichloropropene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
trans-1,3-Dichloropropene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Ethylbenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Hexachlorobutadiene	<22.7		ug/kg dry	22.7	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Hexane	<22.7		ug/kg dry	22.7	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Isopropylbenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
p-Isopropyltoluene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Methylene Chloride	<45.4		ug/kg dry	45.4	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Methyl tert-Butyl Ether	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Naphthalene	<22.7		ug/kg dry	22.7	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
n-Propylbenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Styrene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,1,1,2-Tetrachloroethane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,1,2,2-Tetrachloroethane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Tetrachloroethene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Toluene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,2,3-Trichlorobenzene	<22.7		ug/kg dry	22.7	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,2,4-Trichlorobenzene	<22.7		ug/kg dry	22.7	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,1,1-Trichloroethane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,1,2-Trichloroethane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Trichloroethene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Trichlorofluoromethane	<18.2		ug/kg dry	18.2	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,2,3-Trichloropropane	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,2,4-Trimethylbenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
1,3,5-Trimethylbenzene	<4.54		ug/kg dry	4.54	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Vinyl chloride	<13.6		ug/kg dry	13.6	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Xylenes, total	<13.6		ug/kg dry	13.6	0.789	04/11/11 11:40	EEE	11D0491	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*94 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*99 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	248	04/11/11 22:05	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/06/11 16:55	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.983	04/06/11 16:55	jdb	11D0140	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.983	04/06/11 16:55	jdb	11D0140	OA-2 - 8015B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-33 (MW-20 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 14:40**		**Recvd: 04/01/11 09:31**		
UST ANALYSIS PARAMETERS - cont.									
Motor Oil	<10.0		mg/kg	10.0	0.983	04/06/11 16:55	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*94 %*								
HEM									
HEM (Oil & Grease)	**320**	J, Ba	mg/Kg dry	570	1	04/11/11 06:31	MTB	109897	9071B OG Dry
Sample ID: CUD0086-34 (MW-21A 0-2.5 - Soil)					**Sampled: 03/30/11 15:30**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**81.4**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**2.83**		mg/kg dry	1.23	0.962	04/12/11 00:40	kmd	11D0274	SW 7060A
Barium	**168**		mg/kg dry	0.614	0.979	04/17/11 19:36	cjt	11D0253	SW 6010B
Cadmium	<1.23		mg/kg dry	1.23	0.979	04/17/11 19:36	cjt	11D0253	SW 6010B
Chromium	**19.8**		mg/kg dry	1.23	0.979	04/17/11 19:36	cjt	11D0253	SW 6010B
Lead	**7.95**		mg/kg dry	6.14	0.979	04/17/11 19:36	cjt	11D0253	SW 6010B
Mercury	<0.0246		mg/kg dry	0.0246	0.972	04/06/11 13:36	kmd	11D0190	SW 7471A
Selenium	<9.21		mg/kg dry	9.21	0.979	04/17/11 19:36	cjt	11D0253	SW 6010B
Silver	<1.23		mg/kg dry	1.23	0.979	04/17/11 19:36	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<52.5	L1	ug/kg dry	52.5	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Acrylonitrile	<52.5		ug/kg dry	52.5	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Benzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Bromobenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Bromochloromethane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Bromodichloromethane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Bromoform	<10.5		ug/kg dry	10.5	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Bromomethane	<21.0		ug/kg dry	21.0	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
2-Butanone (MEK)	<52.5		ug/kg dry	52.5	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
n-Butylbenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
sec-Butylbenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
tert-Butylbenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Carbon disulfide	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Carbon Tetrachloride	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Chlorobenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Chlorodibromomethane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Chloroethane	<21.0		ug/kg dry	21.0	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Chloroform	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Chloromethane	<21.0		ug/kg dry	21.0	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
2-Chlorotoluene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
4-Chlorotoluene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,2-Dibromo-3-chloropropane	<52.5		ug/kg dry	52.5	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,2-Dibromoethane (EDB)	<52.5		ug/kg dry	52.5	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Dibromomethane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,2-Dichlorobenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
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ANALYTICAL REPORT

Sample ID: CUD0086-34 (MW-21A 0-2.5 - Soil) - cont. **Sampled: 03/30/11 15:30** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
1,3-Dichlorobenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,4-Dichlorobenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Dichlorodifluoromethane	<15.7		ug/kg dry	15.7	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,1-Dichloroethane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,2-Dichloroethane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,1-Dichloroethene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
cis-1,2-Dichloroethene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
trans-1,2-Dichloroethene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,2-Dichloropropane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,3-Dichloropropane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
2,2-Dichloropropane	<21.0		ug/kg dry	21.0	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,1-Dichloropropene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
cis-1,3-Dichloropropene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
trans-1,3-Dichloropropene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Ethylbenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Hexachlorobutadiene	<26.2		ug/kg dry	26.2	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Hexane	<26.2		ug/kg dry	26.2	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Isopropylbenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
p-Isopropyltoluene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Methylene Chloride	<52.5		ug/kg dry	52.5	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Methyl tert-Butyl Ether	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Naphthalene	<26.2		ug/kg dry	26.2	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
n-Propylbenzene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Styrene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,1,1,2-Tetrachloroethane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,1,2,2-Tetrachloroethane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Tetrachloroethene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Toluene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,2,3-Trichlorobenzene	<26.2		ug/kg dry	26.2	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,2,4-Trichlorobenzene	<26.2		ug/kg dry	26.2	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,1,1-Trichloroethane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,1,2-Trichloroethane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Trichloroethene	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Trichlorofluoromethane	<21.0		ug/kg dry	21.0	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,2,3-Trichloropropane	<5.25		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,2,4-Trimethylbenzene	**12.6**		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
1,3,5-Trimethylbenzene	**7.56**		ug/kg dry	5.25	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Vinyl chloride	<15.7		ug/kg dry	15.7	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Xylenes, total	<15.7		ug/kg dry	15.7	0.855	04/11/11 12:11	EEE	11D0491	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*96 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*104 %*								

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-34 (MW-21A 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 15:30**		**Recvd: 04/01/11 09:31**		
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	242	04/11/11 22:40	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<19.8		mg/kg	19.8	1	04/06/11 17:37	jdb	[CALC]	OA-2 - 8015B
Diesel	<19.8		mg/kg	19.8	1.98	04/06/11 17:37	jdb	11D0140	OA-2 - 8015B
Gasoline	<19.8		mg/kg	19.8	1.98	04/06/11 17:37	jdb	11D0140	OA-2 - 8015B
Motor Oil	<19.8		mg/kg	19.8	1.98	04/06/11 17:37	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*100 %*								
HEM									
HEM (Oil & Grease)	**310**	J, Ba	mg/Kg dry	610	1	04/11/11 06:37	MTB	109897	9071B OG Dry
Sample ID: CUD0086-35 (MW-21A 2.5-5 - Soil)					**Sampled: 03/30/11 15:40**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**84.6**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**3.10**		mg/kg dry	1.18	0.915	04/12/11 00:44	kmd	11D0274	SW 7060A
Barium	**285**		mg/kg dry	0.591	0.952	04/17/11 19:41	cjt	11D0253	SW 6010B
Cadmium	<1.18		mg/kg dry	1.18	0.952	04/17/11 19:41	cjt	11D0253	SW 6010B
Chromium	**18.0**		mg/kg dry	1.18	0.952	04/17/11 19:41	cjt	11D0253	SW 6010B
Lead	<5.91		mg/kg dry	5.91	0.952	04/17/11 19:41	cjt	11D0253	SW 6010B
Mercury	**0.0283**		mg/kg dry	0.0236	0.966	04/06/11 13:37	kmd	11D0190	SW 7471A
Selenium	<8.86		mg/kg dry	8.86	0.952	04/17/11 19:41	cjt	11D0253	SW 6010B
Silver	<1.18		mg/kg dry	1.18	0.952	04/17/11 19:41	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<5040		ug/kg dry	5040	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Acrylonitrile	<5040		ug/kg dry	5040	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Benzene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Bromobenzene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Bromochloromethane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Bromodichloromethane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Bromoform	<1010		ug/kg dry	1010	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Bromomethane	<2020	CIN	ug/kg dry	2020	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
2-Butanone (MEK)	<5040		ug/kg dry	5040	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
n-Butylbenzene	**1980**		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
sec-Butylbenzene	**1250**		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
tert-Butylbenzene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Carbon disulfide	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Carbon Tetrachloride	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Chlorobenzene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Chlorodibromomethane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Chloroethane	<2020		ug/kg dry	2020	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Chloroform	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Chloromethane	<2020	CIN	ug/kg dry	2020	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
2-Chlorotoluene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Sample ID: CUD0086-35 (MW-21A 2.5-5 - Soil) - cont. **Sampled: 03/30/11 15:40** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
4-Chlorotoluene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,2-Dibromo-3-chloropropane	<5040		ug/kg dry	5040	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,2-Dibromoethane (EDB)	<5040		ug/kg dry	5040	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Dibromomethane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,2-Dichlorobenzene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,3-Dichlorobenzene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,4-Dichlorobenzene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Dichlorodifluoromethane	<1510		ug/kg dry	1510	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,1-Dichloroethane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,2-Dichloroethane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,1-Dichloroethene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
cis-1,2-Dichloroethene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
trans-1,2-Dichloroethene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,2-Dichloropropane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,3-Dichloropropane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
2,2-Dichloropropane	<2020	CIN	ug/kg dry	2020	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,1-Dichloropropene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
cis-1,3-Dichloropropene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
trans-1,3-Dichloropropene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Ethylbenzene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Hexachlorobutadiene	<2520		ug/kg dry	2520	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Hexane	<2520		ug/kg dry	2520	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Isopropylbenzene	**746**		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
p-Isopropyltoluene	**680**		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Methylene Chloride	<5040		ug/kg dry	5040	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Methyl tert-Butyl Ether	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Naphthalene	<2520		ug/kg dry	2520	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
n-Propylbenzene	**2000**		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Styrene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,1,1,2-Tetrachloroethane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,1,2,2-Tetrachloroethane	**1640**	CIN	ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Tetrachloroethene	<504	C	ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Toluene	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,2,3-Trichlorobenzene	<2520		ug/kg dry	2520	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,2,4-Trichlorobenzene	<2520		ug/kg dry	2520	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,1,1-Trichloroethane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,1,2-Trichloroethane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Trichloroethene	<504		ug/kg dry	504	85.3	04/13/11 08:40	sjn	11D0560	SW 8260B
Trichlorofluoromethane	<2020		ug/kg dry	2020	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,2,3-Trichloropropane	<504		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,2,4-Trimethylbenzene	**8810**		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
1,3,5-Trimethylbenzene	**3360**		ug/kg dry	504	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-35 (MW-21A 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 15:40**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Vinyl chloride	<1510		ug/kg dry	1510	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Xylenes, total	<1510		ug/kg dry	1510	85.3	04/12/11 15:44	sjn	11D0555	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*103 %*								
Surr: Dibromofluoromethane (75-125%)	*78 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*102 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*103 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*106 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	**181**	B	mg/kg	10.0	239	04/11/11 23:15	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**5940**		mg/kg	150	15	04/08/11 03:21	jdb	[CALC]	OA-2 - 8015B
Diesel	**1390**		mg/kg	150	14.9	04/08/11 03:21	jdb	11D0140	OA-2 - 8015B
Gasoline	**407**	Q	mg/kg	10.0	0.992	04/06/11 18:19	jdb	11D0140	OA-2 - 8015B
Motor Oil	**4150**		mg/kg	150	14.9	04/08/11 03:21	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*2830 %*	*ZX*							
Polychlorinated Biphenyls by EPA Method 8082									
PCB-1016	<1.18	RL1	mg/kg dry	1.18	19.6	04/05/11 19:44	jar	11D0081	SW 8082
PCB-1221	<1.18	RL1	mg/kg dry	1.18	19.6	04/05/11 19:44	jar	11D0081	SW 8082
PCB-1232	<1.18	RL1	mg/kg dry	1.18	19.6	04/05/11 19:44	jar	11D0081	SW 8082
PCB-1242	<1.18	RL1	mg/kg dry	1.18	19.6	04/05/11 19:44	jar	11D0081	SW 8082
PCB-1248	<1.18	RL1	mg/kg dry	1.18	19.6	04/05/11 19:44	jar	11D0081	SW 8082
PCB-1254	<1.18	RL1	mg/kg dry	1.18	19.6	04/05/11 19:44	jar	11D0081	SW 8082
PCB-1260	<1.18	RL1	mg/kg dry	1.18	19.6	04/05/11 19:44	jar	11D0081	SW 8082
PCB-1268	<1.18	RL1	mg/kg dry	1.18	19.6	04/05/11 19:44	jar	11D0081	SW 8082
Surr: Decachlorobiphenyl (55-120%)	*73 %*	*RL1*							
Surr: Tetrachloro-meta-xylene (45-105%)	*73 %*	*RL1*							
HEM									
HEM (Oil & Grease)	**10000**	Ba	mg/Kg dry	570	1	04/11/11 06:43	MTB	109897	9071B OG Dry
Sample ID: CUD0086-36 (MW-21A 5-7.5 - Soil)					**Sampled: 03/30/11 15:45**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**83.6**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**4.42**		mg/kg dry	1.20	0.925	04/12/11 00:47	kmd	11D0274	SW 7060A
Barium	**102**		mg/kg dry	0.598	0.983	04/17/11 19:46	cjt	11D0253	SW 6010B
Cadmium	<1.20		mg/kg dry	1.20	0.983	04/17/11 19:46	cjt	11D0253	SW 6010B
Chromium	**15.3**		mg/kg dry	1.20	0.983	04/17/11 19:46	cjt	11D0253	SW 6010B
Lead	<5.98		mg/kg dry	5.98	0.983	04/17/11 19:46	cjt	11D0253	SW 6010B
Mercury	<0.0239		mg/kg dry	0.0239	0.929	04/06/11 13:39	kmd	11D0190	SW 7471A
Selenium	<8.97		mg/kg dry	8.97	0.983	04/17/11 19:46	cjt	11D0253	SW 6010B
Silver	<1.20		mg/kg dry	1.20	0.983	04/17/11 19:46	cjt	11D0253	SW 6010B
Volatile Organic Compounds									

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ANALYTICAL REPORT

Sample ID: CUD0086-36 (MW-21A 5-7.5 - Soil) - cont. **Sampled: 03/30/11 15:45** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Acetone	<4470		ug/kg dry	4470	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Acrylonitrile	<4470		ug/kg dry	4470	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Benzene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Bromobenzene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Bromochloromethane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Bromodichloromethane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Bromoform	<894		ug/kg dry	894	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Bromomethane	<1790	CIN	ug/kg dry	1790	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
2-Butanone (MEK)	<4470		ug/kg dry	4470	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
n-Butylbenzene	**2520**		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
sec-Butylbenzene	**1660**		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
tert-Butylbenzene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Carbon disulfide	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Carbon Tetrachloride	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Chlorobenzene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Chlorodibromomethane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Chloroethane	<1790		ug/kg dry	1790	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Chloroform	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Chloromethane	<1790	CIN	ug/kg dry	1790	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
2-Chlorotoluene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
4-Chlorotoluene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,2-Dibromo-3-chloropropane	<4470		ug/kg dry	4470	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,2-Dibromoethane (EDB)	<4470		ug/kg dry	4470	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Dibromomethane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,2-Dichlorobenzene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,3-Dichlorobenzene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,4-Dichlorobenzene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Dichlorodifluoromethane	<1340		ug/kg dry	1340	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,1-Dichloroethane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,2-Dichloroethane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,1-Dichloroethene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
cis-1,2-Dichloroethene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
trans-1,2-Dichloroethene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,2-Dichloropropane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,3-Dichloropropane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
2,2-Dichloropropane	<1790	CIN	ug/kg dry	1790	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,1-Dichloropropene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
cis-1,3-Dichloropropene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
trans-1,3-Dichloropropene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Ethylbenzene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Hexachlorobutadiene	<2240		ug/kg dry	2240	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Hexane	<2240		ug/kg dry	2240	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B

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Received: 04/01/11
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-36 (MW-21A 5-7.5 - Soil) - cont.					**Sampled: 03/30/11 15:45**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Isopropylbenzene	**1400**		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
p-Isopropyltoluene	**1260**		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Methylene Chloride	<4470		ug/kg dry	4470	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Methyl tert-Butyl Ether	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Naphthalene	<2240		ug/kg dry	2240	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
n-Propylbenzene	**3570**		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Styrene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,1,1,2-Tetrachloroethane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,1,2,2-Tetrachloroethane	**982**	CIN	ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Tetrachloroethene	<447	C	ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Toluene	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,2,3-Trichlorobenzene	<2240		ug/kg dry	2240	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,2,4-Trichlorobenzene	<2240		ug/kg dry	2240	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,1,1-Trichloroethane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,1,2-Trichloroethane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Trichloroethene	<447		ug/kg dry	447	74.8	04/13/11 09:02	sjn	11D0560	SW 8260B
Trichlorofluoromethane	<1790		ug/kg dry	1790	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,2,3-Trichloropropane	<447		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,2,4-Trimethylbenzene	**14600**		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
1,3,5-Trimethylbenzene	**5060**		ug/kg dry	447	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Vinyl chloride	<1340		ug/kg dry	1340	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Xylenes, total	**3830**		ug/kg dry	1340	74.8	04/12/11 16:10	sjn	11D0555	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*100 %*								
Surr: Dibromofluoromethane (75-125%)	*82 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*106 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	**44.5**	B	mg/kg	10.0	240	04/11/11 23:50	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**767**		mg/kg	10.0	1	04/06/11 19:01	jdb	[CALC]	OA-2 - 8015B
Diesel	**204**	Q	mg/kg	10.0	0.975	04/06/11 19:01	jdb	11D0140	OA-2 - 8015B
Gasoline	**28.9**	Q	mg/kg	10.0	0.975	04/06/11 19:01	jdb	11D0140	OA-2 - 8015B
Motor Oil	**533**		mg/kg	10.0	0.975	04/06/11 19:01	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*392 %*	*ZX*							
HEM									
HEM (Oil & Grease)	**6700**	Ba	mg/Kg dry	590	1	04/11/11 06:49	MTB	109897	9071B OG Dry
Sample ID: CUD0086-37 (MW-21A 7.5-10 - Soil)					**Sampled: 03/30/11 15:50**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**86.6**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									

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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-37 (MW-21A 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 15:50**		**Recvd: 04/01/11 09:31**		
Total Metals by SW 846 Series Methods - cont.									
Arsenic	**4.89**		mg/kg dry	1.16	0.956	04/12/11 00:50	kmd	11D0274	SW 7060A
Barium	**74.6**		mg/kg dry	1.73	2.89	04/18/11 18:13	cjt	11D0253	SW 6010B
Cadmium	<3.47	IE	mg/kg dry	3.47	2.89	04/18/11 18:13	cjt	11D0253	SW 6010B
Chromium	**14.4**		mg/kg dry	3.47	2.89	04/18/11 18:13	cjt	11D0253	SW 6010B
Lead	<17.3	IE	mg/kg dry	17.3	2.89	04/18/11 18:13	cjt	11D0253	SW 6010B
Mercury	<0.0231		mg/kg dry	0.0231	0.923	04/06/11 13:44	kmd	11D0191	SW 7471A
Selenium	<26.0	IE	mg/kg dry	26.0	2.89	04/18/11 18:13	cjt	11D0253	SW 6010B
Silver	<3.47	IE	mg/kg dry	3.47	2.89	04/18/11 18:13	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	<48.5	L1	ug/kg dry	48.5	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Acrylonitrile	<48.5		ug/kg dry	48.5	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Benzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Bromobenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Bromochloromethane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Bromodichloromethane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Bromoform	<9.71		ug/kg dry	9.71	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Bromomethane	<19.4		ug/kg dry	19.4	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
2-Butanone (MEK)	<48.5		ug/kg dry	48.5	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
n-Butylbenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
sec-Butylbenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
tert-Butylbenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Carbon disulfide	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Carbon Tetrachloride	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Chlorobenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Chlorodibromomethane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Chloroethane	<19.4		ug/kg dry	19.4	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Chloroform	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Chloromethane	<19.4		ug/kg dry	19.4	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
2-Chlorotoluene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
4-Chlorotoluene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,2-Dibromo-3-chloropropane	<48.5		ug/kg dry	48.5	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,2-Dibromoethane (EDB)	<48.5		ug/kg dry	48.5	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Dibromomethane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,2-Dichlorobenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,3-Dichlorobenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,4-Dichlorobenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Dichlorodifluoromethane	<14.6		ug/kg dry	14.6	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,1-Dichloroethane	**6.96**		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,2-Dichloroethane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,1-Dichloroethene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
cis-1,2-Dichloroethene	**30.2**		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
trans-1,2-Dichloroethene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-37 (MW-21A 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 15:50**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,2-Dichloropropane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,3-Dichloropropane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
2,2-Dichloropropane	<19.4		ug/kg dry	19.4	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,1-Dichloropropene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
cis-1,3-Dichloropropene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
trans-1,3-Dichloropropene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Ethylbenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Hexachlorobutadiene	<24.3		ug/kg dry	24.3	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Hexane	<24.3		ug/kg dry	24.3	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Isopropylbenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
p-Isopropyltoluene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Methylene Chloride	<48.5		ug/kg dry	48.5	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Methyl tert-Butyl Ether	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Naphthalene	<24.3		ug/kg dry	24.3	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
n-Propylbenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Styrene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,1,1,2-Tetrachloroethane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,1,2,2-Tetrachloroethane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Tetrachloroethene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Toluene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,2,3-Trichlorobenzene	<24.3		ug/kg dry	24.3	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,2,4-Trichlorobenzene	<24.3		ug/kg dry	24.3	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,1,1-Trichloroethane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,1,2-Trichloroethane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Trichloroethene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Trichlorofluoromethane	<19.4		ug/kg dry	19.4	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,2,3-Trichloropropane	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,2,4-Trimethylbenzene	**9.78**		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
1,3,5-Trimethylbenzene	<4.85		ug/kg dry	4.85	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Vinyl chloride	<14.6		ug/kg dry	14.6	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Xylenes, total	<14.6		ug/kg dry	14.6	0.84	04/11/11 13:42	EEE	11D0491	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*101 %*								
Surr: Toluene-d8 (80-120%)	*96 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*104 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	**11.0**	B	mg/kg	10.0	244	04/12/11 00:26	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**14.8**		mg/kg	10.0	1	04/07/11 23:14	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.974	04/07/11 23:14	jdb	11D0140	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.974	04/07/11 23:14	jdb	11D0140	OA-2 - 8015B
Motor Oil	**14.8**		mg/kg	10.0	0.974	04/07/11 23:14	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*112 %*								

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Sample ID: CUD0086-37 (MW-21A 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 15:50**		**Recvd: 04/01/11 09:31**		
HEM									
HEM (Oil & Grease)	**200**	J, Ba	mg/Kg dry	570	1	04/11/11 06:55	MTB	109897	9071B OG Dry
Sample ID: CUD0086-38 (MW-21 0-2.5 - Soil)					**Sampled: 03/30/11 16:15**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**83.2**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**2.07**		mg/kg dry	1.20	0.915	04/12/11 00:53	kmd	11D0274	SW 7060A
Barium	**112**		mg/kg dry	0.601	0.975	04/17/11 19:56	cjt	11D0253	SW 6010B
Cadmium	<1.20		mg/kg dry	1.20	0.975	04/17/11 19:56	cjt	11D0253	SW 6010B
Chromium	**15.9**		mg/kg dry	1.20	0.975	04/17/11 19:56	cjt	11D0253	SW 6010B
Lead	**6.13**		mg/kg dry	6.01	0.975	04/17/11 19:56	cjt	11D0253	SW 6010B
Mercury	**0.0262**		mg/kg dry	0.0240	0.923	04/06/11 13:50	kmd	11D0191	SW 7471A
Selenium	<9.01		mg/kg dry	9.01	0.975	04/17/11 19:56	cjt	11D0253	SW 6010B
Silver	<1.20		mg/kg dry	1.20	0.975	04/17/11 19:56	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	**53.6**	L1, S2	ug/kg dry	47.5	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Acrylonitrile	<47.5		ug/kg dry	47.5	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Benzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Bromobenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Bromochloromethane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Bromodichloromethane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Bromoform	<9.50		ug/kg dry	9.50	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Bromomethane	<19.0		ug/kg dry	19.0	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
2-Butanone (MEK)	<47.5		ug/kg dry	47.5	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
n-Butylbenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
sec-Butylbenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
tert-Butylbenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Carbon disulfide	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Carbon Tetrachloride	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Chlorobenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Chlorodibromomethane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Chloroethane	<19.0		ug/kg dry	19.0	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Chloroform	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Chloromethane	<19.0		ug/kg dry	19.0	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
2-Chlorotoluene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
4-Chlorotoluene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,2-Dibromo-3-chloropropane	<47.5		ug/kg dry	47.5	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,2-Dibromoethane (EDB)	<47.5		ug/kg dry	47.5	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Dibromomethane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,2-Dichlorobenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,3-Dichlorobenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,4-Dichlorobenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Dichlorodifluoromethane	<14.3		ug/kg dry	14.3	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B

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Sample ID: CUD0086-38 (MW-21 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 16:15**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1-Dichloroethane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,2-Dichloroethane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,1-Dichloroethene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
cis-1,2-Dichloroethene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
trans-1,2-Dichloroethene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,2-Dichloropropane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,3-Dichloropropane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
2,2-Dichloropropane	<19.0		ug/kg dry	19.0	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,1-Dichloropropene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
cis-1,3-Dichloropropene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
trans-1,3-Dichloropropene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Ethylbenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Hexachlorobutadiene	<23.8		ug/kg dry	23.8	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Hexane	<23.8		ug/kg dry	23.8	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Isopropylbenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
p-Isopropyltoluene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Methylene Chloride	<47.5		ug/kg dry	47.5	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Methyl tert-Butyl Ether	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Naphthalene	<23.8		ug/kg dry	23.8	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
n-Propylbenzene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Styrene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,1,1,2-Tetrachloroethane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,1,2,2-Tetrachloroethane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Tetrachloroethene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Toluene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,2,3-Trichlorobenzene	<23.8		ug/kg dry	23.8	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,2,4-Trichlorobenzene	<23.8		ug/kg dry	23.8	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,1,1-Trichloroethane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,1,2-Trichloroethane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Trichloroethene	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Trichlorofluoromethane	<19.0		ug/kg dry	19.0	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,2,3-Trichloropropane	<4.75		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,2,4-Trimethylbenzene	**32.2**		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
1,3,5-Trimethylbenzene	**20.1**		ug/kg dry	4.75	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Vinyl chloride	<14.3		ug/kg dry	14.3	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Xylenes, total	<14.3		ug/kg dry	14.3	0.791	04/11/11 14:13	EEE	11D0491	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*92 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*113 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	**10.5**	B	mg/kg	10.0	247	04/12/11 01:01	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									

TestAmerica Cedar Falls
Derrick Klinkenberg
Organics Manager

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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-38 (MW-21 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 16:15**		**Recvd: 04/01/11 09:31**		
UST ANALYSIS PARAMETERS - cont.									
Total Extractable Hydrocarbons	**138**		mg/kg	19.6	1	04/06/11 20:23	jdb	[CALC]	OA-2 - 8015B
Diesel	**29.1**	Q	mg/kg	19.6	1.96	04/06/11 20:23	jdb	11D0140	OA-2 - 8015B
Gasoline	<19.6		mg/kg	19.6	1.96	04/06/11 20:23	jdb	11D0140	OA-2 - 8015B
Motor Oil	**109**		mg/kg	19.6	1.96	04/06/11 20:23	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*154 %*	*ZX*							
HEM									
HEM (Oil & Grease)	**360**	J, Ba	mg/Kg dry	580	1	04/11/11 07:01	MTB	109897	9071B OG Dry
Sample ID: CUD0086-39 (MW-21 2.5-5 - Soil)					**Sampled: 03/30/11 16:20**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**82.3**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**3.74**		mg/kg dry	1.22	0.979	04/12/11 01:02	kmd	11D0274	SW 7060A
Barium	**99.1**		mg/kg dry	0.608	0.979	04/17/11 20:01	cjt	11D0253	SW 6010B
Cadmium	<1.22		mg/kg dry	1.22	0.979	04/17/11 20:01	cjt	11D0253	SW 6010B
Chromium	**12.2**		mg/kg dry	1.22	0.979	04/17/11 20:01	cjt	11D0253	SW 6010B
Lead	<6.08		mg/kg dry	6.08	0.979	04/17/11 20:01	cjt	11D0253	SW 6010B
Mercury	**0.0256**		mg/kg dry	0.0243	0.949	04/06/11 13:55	kmd	11D0191	SW 7471A
Selenium	<9.12		mg/kg dry	9.12	0.979	04/17/11 20:01	cjt	11D0253	SW 6010B
Silver	<1.22		mg/kg dry	1.22	0.979	04/17/11 20:01	cjt	11D0253	SW 6010B
Volatile Organic Compounds									
Acetone	**148**	L1, S2	ug/kg dry	53.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Acrylonitrile	<53.3		ug/kg dry	53.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Benzene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Bromobenzene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Bromochloromethane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Bromodichloromethane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Bromoform	<10.7		ug/kg dry	10.7	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Bromomethane	<21.3		ug/kg dry	21.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
2-Butanone (MEK)	<53.3		ug/kg dry	53.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
n-Butylbenzene	**40.5**		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
sec-Butylbenzene	**30.2**		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
tert-Butylbenzene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Carbon disulfide	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Carbon Tetrachloride	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Chlorobenzene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Chlorodibromomethane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Chloroethane	<21.3		ug/kg dry	21.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Chloroform	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Chloromethane	<21.3		ug/kg dry	21.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
2-Chlorotoluene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
4-Chlorotoluene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,2-Dibromo-3-chloropropane	<53.3		ug/kg dry	53.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B

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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-39 (MW-21 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 16:20**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,2-Dibromoethane (EDB)	<53.3		ug/kg dry	53.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Dibromomethane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,2-Dichlorobenzene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,3-Dichlorobenzene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,4-Dichlorobenzene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Dichlorodifluoromethane	<16.0		ug/kg dry	16.0	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,1-Dichloroethane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,2-Dichloroethane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,1-Dichloroethene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
cis-1,2-Dichloroethene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
trans-1,2-Dichloroethene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,2-Dichloropropane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,3-Dichloropropane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
2,2-Dichloropropane	<21.3		ug/kg dry	21.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,1-Dichloropropene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
cis-1,3-Dichloropropene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
trans-1,3-Dichloropropene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Ethylbenzene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Hexachlorobutadiene	<26.7		ug/kg dry	26.7	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Hexane	<26.7		ug/kg dry	26.7	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Isopropylbenzene	**11.0**		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
p-Isopropyltoluene	**80.2**		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Methylene Chloride	<53.3		ug/kg dry	53.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Methyl tert-Butyl Ether	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Naphthalene	<26.7		ug/kg dry	26.7	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
n-Propylbenzene	**27.4**		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Styrene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,1,1,2-Tetrachloroethane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,1,2,2-Tetrachloroethane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Tetrachloroethene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Toluene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,2,3-Trichlorobenzene	<26.7		ug/kg dry	26.7	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,2,4-Trichlorobenzene	<26.7		ug/kg dry	26.7	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,1,1-Trichloroethane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,1,2-Trichloroethane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Trichloroethene	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Trichlorofluoromethane	<21.3		ug/kg dry	21.3	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,2,3-Trichloropropane	<5.33		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,2,4-Trimethylbenzene	**223**		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
1,3,5-Trimethylbenzene	**140**		ug/kg dry	5.33	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Vinyl chloride	<16.0		ug/kg dry	16.0	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B
Xylenes, total	**56.7**		ug/kg dry	16.0	0.877	04/11/11 14:43	EEE	11D0491	SW 8260B

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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-39 (MW-21 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 16:20**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Surr: Dibromofluoromethane (75-125%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*94 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*95 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	**95.9**	B	mg/kg	10.0	239	04/12/11 01:36	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**9260**		mg/kg	250	25	04/08/11 02:40	jdb	[CALC]	OA-2 - 8015B
Diesel	**2950**		mg/kg	250	24.6	04/08/11 02:40	jdb	11D0140	OA-2 - 8015B
Gasoline	**298**	Q	mg/kg	10.0	0.985	04/06/11 21:05	jdb	11D0140	OA-2 - 8015B
Motor Oil	**6010**		mg/kg	250	24.6	04/08/11 02:40	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*4120 %*	*ZX*							
HEM									
HEM (Oil & Grease)	**5300**	Ba	mg/Kg dry	600	1	04/11/11 07:07	MTB	109897	9071B OG Dry
Sample ID: CUD0086-40 (MW-21 5-10 - Soil)					**Sampled: 03/30/11 16:30**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**81.6**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**3.46**		mg/kg dry	1.23	0.978	04/12/11 01:06	kmd	11D0274	SW 7060A
Barium	**138**		mg/kg dry	0.613	0.973	04/14/11 04:23	cjt	11D0349	SW 6010B
Cadmium	<1.23	M1, R	mg/kg dry	1.23	0.973	04/14/11 04:23	cjt	11D0349	SW 6010B
Chromium	**17.1**	M1, R	mg/kg dry	1.23	0.973	04/14/11 04:23	cjt	11D0349	SW 6010B
Lead	**9.57**	M1, R	mg/kg dry	6.13	0.973	04/14/11 04:23	cjt	11D0349	SW 6010B
Mercury	<0.0245		mg/kg dry	0.0245	0.916	04/06/11 13:57	kmd	11D0191	SW 7471A
Selenium	<9.19	M1, R	mg/kg dry	9.19	0.973	04/14/11 04:23	cjt	11D0349	SW 6010B
Silver	<1.23	M1, R	mg/kg dry	1.23	0.973	04/14/11 04:23	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<52.5		ug/kg dry	52.5	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Acrylonitrile	<52.5		ug/kg dry	52.5	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Benzene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Bromobenzene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Bromochloromethane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Bromodichloromethane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Bromoform	<10.5		ug/kg dry	10.5	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Bromomethane	<21.0	CIN	ug/kg dry	21.0	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
2-Butanone (MEK)	<52.5		ug/kg dry	52.5	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
n-Butylbenzene	**53.3**		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
sec-Butylbenzene	**36.1**		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
tert-Butylbenzene	**5.55**		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Carbon disulfide	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Carbon Tetrachloride	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Chlorobenzene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Chlorodibromomethane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B

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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-40 (MW-21 5-10 - Soil) - cont.					**Sampled: 03/30/11 16:30**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Chloroethane	<21.0		ug/kg dry	21.0	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Chloroform	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Chloromethane	<21.0	CIN	ug/kg dry	21.0	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
2-Chlorotoluene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
4-Chlorotoluene	**10.9**		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,2-Dibromo-3-chloropropane	<52.5		ug/kg dry	52.5	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,2-Dibromoethane (EDB)	<52.5		ug/kg dry	52.5	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Dibromomethane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,2-Dichlorobenzene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,3-Dichlorobenzene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,4-Dichlorobenzene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Dichlorodifluoromethane	<15.8		ug/kg dry	15.8	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,1-Dichloroethane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,2-Dichloroethane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,1-Dichloroethene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
cis-1,2-Dichloroethene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
trans-1,2-Dichloroethene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,2-Dichloropropane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,3-Dichloropropane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
2,2-Dichloropropane	<21.0	CIN	ug/kg dry	21.0	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,1-Dichloropropene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
cis-1,3-Dichloropropene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
trans-1,3-Dichloropropene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Ethylbenzene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Hexachlorobutadiene	<26.3		ug/kg dry	26.3	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Hexane	<26.3		ug/kg dry	26.3	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Isopropylbenzene	**22.3**		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
p-Isopropyltoluene	**28.4**		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Methylene Chloride	<52.5		ug/kg dry	52.5	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Methyl tert-Butyl Ether	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Naphthalene	<26.3		ug/kg dry	26.3	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
n-Propylbenzene	**58.1**		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Styrene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,1,1,2-Tetrachloroethane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,1,2,2-Tetrachloroethane	**23.1**	CIN	ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Tetrachloroethene	<5.25	C	ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Toluene	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,2,3-Trichlorobenzene	<26.3		ug/kg dry	26.3	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,2,4-Trichlorobenzene	<26.3		ug/kg dry	26.3	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,1,1-Trichloroethane	**10.6**		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,1,2-Trichloroethane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Trichloroethene	<525		ug/kg dry	525	85.7	04/13/11 09:24	sjn	11D0560	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-40 (MW-21 5-10 - Soil) - cont.					**Sampled: 03/30/11 16:30**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Trichlorofluoromethane	<21.0		ug/kg dry	21.0	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,2,3-Trichloropropane	<5.25		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,2,4-Trimethylbenzene	**279**		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
1,3,5-Trimethylbenzene	**120**		ug/kg dry	5.25	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Vinyl chloride	<15.8		ug/kg dry	15.8	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Xylenes, total	**72.0**		ug/kg dry	15.8	0.857	04/12/11 16:36	sjn	11D0555	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*103 %*								
Surr: Dibromofluoromethane (75-125%)	*87 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*98 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*108 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	**138**	B	mg/kg	10.0	238	04/12/11 02:11	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**19700**		mg/kg	500	50	04/08/11 01:59	jdb	[CALC]	OA-2 - 8015B
Diesel	**6150**		mg/kg	500	49.2	04/08/11 01:59	jdb	11D0140	OA-2 - 8015B
Gasoline	**837**	Q	mg/kg	10.0	0.984	04/07/11 03:26	jdb	11D0140	OA-2 - 8015B
Motor Oil	**12700**		mg/kg	500	49.2	04/08/11 01:59	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*24400 %*	*ZX*							
Polychlorinated Biphenyls by EPA Method 8082									
PCB-1016	<1.23	RL1	mg/kg dry	1.23	19.6	04/05/11 19:55	jar	11D0081	SW 8082
PCB-1221	<1.23	RL1	mg/kg dry	1.23	19.6	04/05/11 19:55	jar	11D0081	SW 8082
PCB-1232	<1.23	RL1	mg/kg dry	1.23	19.6	04/05/11 19:55	jar	11D0081	SW 8082
PCB-1242	<1.23	RL1	mg/kg dry	1.23	19.6	04/05/11 19:55	jar	11D0081	SW 8082
PCB-1248	<1.23	RL1	mg/kg dry	1.23	19.6	04/05/11 19:55	jar	11D0081	SW 8082
PCB-1254	<1.23	RL1	mg/kg dry	1.23	19.6	04/05/11 19:55	jar	11D0081	SW 8082
PCB-1260	<1.23	RL1	mg/kg dry	1.23	19.6	04/05/11 19:55	jar	11D0081	SW 8082
PCB-1268	<1.23	RL1	mg/kg dry	1.23	19.6	04/05/11 19:55	jar	11D0081	SW 8082
Surr: Decachlorobiphenyl (55-120%)	*86 %*	*RL1*							
Surr: Tetrachloro-meta-xylene (45-105%)	*68 %*	*RL1*							
HEM									
HEM (Oil & Grease)	**19000**		mg/Kg dry	600	1	04/13/11 12:12	MTB	110190	9071B OG Dry

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-41 (MW-21 10-12 - Soil)					**Sampled: 03/30/11 16:35**			**Recvd: 04/01/11 09:31**	
General Chemistry Parameters									
% Solids	**87.0**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**6.03**	M1	mg/kg dry	1.04	0.903	04/12/11 01:09	kmd	11D0274	SW 7060A
Barium	**105**		mg/kg dry	1.72	2.91	04/14/11 07:10	cjt	11D0349	SW 6010B
Cadmium	<3.45	IE	mg/kg dry	3.45	2.91	04/14/11 07:10	cjt	11D0349	SW 6010B
Chromium	**14.9**		mg/kg dry	3.45	2.91	04/14/11 07:10	cjt	11D0349	SW 6010B
Lead	<17.2	IE	mg/kg dry	17.2	2.91	04/14/11 07:10	cjt	11D0349	SW 6010B
Mercury	<0.0207		mg/kg dry	0.0207	0.9	04/06/11 13:59	kmd	11D0191	SW 7471A
Selenium	<25.9	IE	mg/kg dry	25.9	2.91	04/14/11 07:10	cjt	11D0349	SW 6010B
Silver	<3.45	IE	mg/kg dry	3.45	2.91	04/14/11 07:10	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<43.8	L1	ug/kg dry	43.8	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Acrylonitrile	<43.8		ug/kg dry	43.8	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Benzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Bromobenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Bromochloromethane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Bromodichloromethane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Bromoform	<8.76		ug/kg dry	8.76	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Bromomethane	<17.5		ug/kg dry	17.5	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
2-Butanone (MEK)	<43.8		ug/kg dry	43.8	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
n-Butylbenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
sec-Butylbenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
tert-Butylbenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Carbon disulfide	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Carbon Tetrachloride	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Chlorobenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Chlorodibromomethane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Chloroethane	<17.5		ug/kg dry	17.5	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Chloroform	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Chloromethane	<17.5		ug/kg dry	17.5	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
2-Chlorotoluene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
4-Chlorotoluene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,2-Dibromo-3-chloropropane	<43.8		ug/kg dry	43.8	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,2-Dibromoethane (EDB)	<43.8		ug/kg dry	43.8	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Dibromomethane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,2-Dichlorobenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,3-Dichlorobenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,4-Dichlorobenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Dichlorodifluoromethane	<13.1		ug/kg dry	13.1	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,1-Dichloroethane	**10.6**		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,2-Dichloroethane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,1-Dichloroethene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-41 (MW-21 10-12 - Soil) - cont.					**Sampled: 03/30/11 16:35**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
cis-1,2-Dichloroethene	**26.4**		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
trans-1,2-Dichloroethene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,2-Dichloropropane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,3-Dichloropropane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
2,2-Dichloropropane	<17.5		ug/kg dry	17.5	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,1-Dichloropropene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
cis-1,3-Dichloropropene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
trans-1,3-Dichloropropene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Ethylbenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Hexachlorobutadiene	<21.9		ug/kg dry	21.9	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Hexane	<21.9		ug/kg dry	21.9	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Isopropylbenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
p-Isopropyltoluene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Methylene Chloride	<43.8		ug/kg dry	43.8	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Methyl tert-Butyl Ether	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Naphthalene	<21.9		ug/kg dry	21.9	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
n-Propylbenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Styrene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,1,1,2-Tetrachloroethane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,1,2,2-Tetrachloroethane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Tetrachloroethene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Toluene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,2,3-Trichlorobenzene	<21.9		ug/kg dry	21.9	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,2,4-Trichlorobenzene	<21.9		ug/kg dry	21.9	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,1,1-Trichloroethane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,1,2-Trichloroethane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Trichloroethene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Trichlorofluoromethane	<17.5		ug/kg dry	17.5	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,2,3-Trichloropropane	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,2,4-Trimethylbenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
1,3,5-Trimethylbenzene	<4.38		ug/kg dry	4.38	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Vinyl chloride	<13.1		ug/kg dry	13.1	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Xylenes, total	<13.1		ug/kg dry	13.1	0.761	04/09/11 12:42	EEE	11D0407	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*97 %*								
Surr: Toluene-d8 (80-120%)	*98 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*92 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	**15.3**	B	mg/kg	10.0	233	04/12/11 02:47	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**105**		mg/kg	10.0	1	04/08/11 01:17	jdb	[CALC]	OA-2 - 8015B
Diesel	**21.2**	Q	mg/kg	10.0	0.971	04/08/11 01:17	jdb	11D0140	OA-2 - 8015B
Gasoline	**10.4**	Q	mg/kg	10.0	0.971	04/08/11 01:17	jdb	11D0140	OA-2 - 8015B

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Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-41 (MW-21 10-12 - Soil) - cont.					**Sampled: 03/30/11 16:35**		**Recvd: 04/01/11 09:31**		
UST ANALYSIS PARAMETERS - cont.									
Motor Oil	**73.8**		mg/kg	10.0	0.971	04/08/11 01:17	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*156 %*	*ZX*							
HEM									
HEM (Oil & Grease)	**180**	J	mg/Kg dry	570	1	04/13/11 13:00	MTB	110190	9071B OG Dry
Sample ID: CUD0086-42 (MW-22 0-2.5 - Soil)					**Sampled: 03/30/11 17:20**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**81.0**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**2.72**		mg/kg dry	1.23	0.978	04/12/11 01:15	kmd	11D0274	SW 7060A
Barium	**124**		mg/kg dry	0.617	0.98	04/14/11 05:01	cjt	11D0349	SW 6010B
Cadmium	<1.23		mg/kg dry	1.23	0.98	04/14/11 05:01	cjt	11D0349	SW 6010B
Chromium	**19.9**		mg/kg dry	1.23	0.98	04/14/11 05:01	cjt	11D0349	SW 6010B
Lead	**10.2**		mg/kg dry	6.17	0.98	04/14/11 05:01	cjt	11D0349	SW 6010B
Mercury	<0.0247		mg/kg dry	0.0247	0.974	04/06/11 14:00	kmd	11D0191	SW 7471A
Selenium	<9.26		mg/kg dry	9.26	0.98	04/14/11 05:01	cjt	11D0349	SW 6010B
Silver	<1.23		mg/kg dry	1.23	0.98	04/14/11 05:01	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<50.1	L1	ug/kg dry	50.1	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Acrylonitrile	<50.1		ug/kg dry	50.1	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Benzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Bromobenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Bromochloromethane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Bromodichloromethane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Bromoform	<10.0		ug/kg dry	10.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Bromomethane	<20.0		ug/kg dry	20.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
2-Butanone (MEK)	<50.1		ug/kg dry	50.1	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
n-Butylbenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
sec-Butylbenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
tert-Butylbenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Carbon disulfide	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Carbon Tetrachloride	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Chlorobenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Chlorodibromomethane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Chloroethane	<20.0		ug/kg dry	20.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Chloroform	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Chloromethane	<20.0		ug/kg dry	20.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
2-Chlorotoluene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
4-Chlorotoluene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,2-Dibromo-3-chloropropane	<50.1		ug/kg dry	50.1	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,2-Dibromoethane (EDB)	<50.1		ug/kg dry	50.1	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Dibromomethane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,2-Dichlorobenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-42 (MW-22 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 17:20**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,3-Dichlorobenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,4-Dichlorobenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Dichlorodifluoromethane	<15.0		ug/kg dry	15.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,1-Dichloroethane	**151**		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,2-Dichloroethane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,1-Dichloroethene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
cis-1,2-Dichloroethene	**9.31**		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
trans-1,2-Dichloroethene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,2-Dichloropropane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,3-Dichloropropane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
2,2-Dichloropropane	<20.0		ug/kg dry	20.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,1-Dichloropropene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
cis-1,3-Dichloropropene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
trans-1,3-Dichloropropene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Ethylbenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Hexachlorobutadiene	<25.0		ug/kg dry	25.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Hexane	<25.0		ug/kg dry	25.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Isopropylbenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
p-Isopropyltoluene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Methylene Chloride	<50.1		ug/kg dry	50.1	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Methyl tert-Butyl Ether	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Naphthalene	<25.0		ug/kg dry	25.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
n-Propylbenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Styrene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,1,1,2-Tetrachloroethane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,1,2,2-Tetrachloroethane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Tetrachloroethene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Toluene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,2,3-Trichlorobenzene	<25.0		ug/kg dry	25.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,2,4-Trichlorobenzene	<25.0		ug/kg dry	25.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,1,1-Trichloroethane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,1,2-Trichloroethane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Trichloroethene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Trichlorofluoromethane	<20.0		ug/kg dry	20.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,2,3-Trichloropropane	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,2,4-Trimethylbenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
1,3,5-Trimethylbenzene	<5.01		ug/kg dry	5.01	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Vinyl chloride	<15.0		ug/kg dry	15.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Xylenes, total	<15.0		ug/kg dry	15.0	0.811	04/09/11 13:13	EEE	11D0407	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*101 %*								
Surr: Toluene-d8 (80-120%)	*96 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*101 %*								

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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-42 (MW-22 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 17:20**		**Recvd: 04/01/11 09:31**		
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	235	04/12/11 03:22	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**717**		mg/kg	19.1	1	04/06/11 22:28	jdb	[CALC]	OA-2 - 8015B
Diesel	**151**	Q	mg/kg	19.1	1.91	04/06/11 22:28	jdb	11D0140	OA-2 - 8015B
Gasoline	<19.1		mg/kg	19.1	1.91	04/06/11 22:28	jdb	11D0140	OA-2 - 8015B
Motor Oil	**566**		mg/kg	19.1	1.91	04/06/11 22:28	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*220 %*	*ZX*							
HEM									
HEM (Oil & Grease)	**1800**		mg/Kg dry	610	1	04/13/11 13:17	MTB	110190	9071B OG Dry
Sample ID: CUD0086-43 (MW-22 2.5-5 - Soil)					**Sampled: 03/30/11 17:25**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**80.8**		%	0.100	1	04/05/11 14:37	sas	11D0158	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	<1.24		mg/kg dry	1.24	0.944	04/12/11 01:22	kmd	11D0274	SW 7060A
Barium	**136**		mg/kg dry	0.618	0.998	04/14/11 05:06	cjt	11D0349	SW 6010B
Cadmium	<1.24		mg/kg dry	1.24	0.998	04/14/11 05:06	cjt	11D0349	SW 6010B
Chromium	**23.1**		mg/kg dry	1.24	0.998	04/14/11 05:06	cjt	11D0349	SW 6010B
Lead	**11.4**		mg/kg dry	6.18	0.998	04/14/11 05:06	cjt	11D0349	SW 6010B
Mercury	<0.0247		mg/kg dry	0.0247	0.977	04/06/11 14:02	kmd	11D0191	SW 7471A
Selenium	<9.28		mg/kg dry	9.28	0.998	04/14/11 05:06	cjt	11D0349	SW 6010B
Silver	<1.24		mg/kg dry	1.24	0.998	04/14/11 05:06	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<51.3	L1	ug/kg dry	51.3	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Acrylonitrile	<51.3		ug/kg dry	51.3	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Benzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Bromobenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Bromochloromethane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Bromodichloromethane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Bromoform	<10.3		ug/kg dry	10.3	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Bromomethane	<20.5		ug/kg dry	20.5	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
2-Butanone (MEK)	<51.3		ug/kg dry	51.3	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
n-Butylbenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
sec-Butylbenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
tert-Butylbenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Carbon disulfide	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Carbon Tetrachloride	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Chlorobenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Chlorodibromomethane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Chloroethane	**23.0**		ug/kg dry	20.5	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Chloroform	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Chloromethane	<20.5		ug/kg dry	20.5	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
2-Chlorotoluene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-43 (MW-22 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 17:25**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
4-Chlorotoluene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,2-Dibromo-3-chloropropane	<51.3		ug/kg dry	51.3	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,2-Dibromoethane (EDB)	<51.3		ug/kg dry	51.3	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Dibromomethane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,2-Dichlorobenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,3-Dichlorobenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,4-Dichlorobenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Dichlorodifluoromethane	<15.4		ug/kg dry	15.4	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,1-Dichloroethane	**60.6**		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,2-Dichloroethane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,1-Dichloroethene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
cis-1,2-Dichloroethene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
trans-1,2-Dichloroethene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,2-Dichloropropane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,3-Dichloropropane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
2,2-Dichloropropane	<20.5		ug/kg dry	20.5	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,1-Dichloropropene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
cis-1,3-Dichloropropene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
trans-1,3-Dichloropropene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Ethylbenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Hexachlorobutadiene	<25.7		ug/kg dry	25.7	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Hexane	<25.7		ug/kg dry	25.7	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Isopropylbenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
p-Isopropyltoluene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Methylene Chloride	<51.3		ug/kg dry	51.3	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Methyl tert-Butyl Ether	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Naphthalene	<25.7		ug/kg dry	25.7	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
n-Propylbenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Styrene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,1,1,2-Tetrachloroethane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,1,2,2-Tetrachloroethane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Tetrachloroethene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Toluene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,2,3-Trichlorobenzene	<25.7		ug/kg dry	25.7	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,2,4-Trichlorobenzene	<25.7		ug/kg dry	25.7	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,1,1-Trichloroethane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,1,2-Trichloroethane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Trichloroethene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Trichlorofluoromethane	<20.5		ug/kg dry	20.5	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,2,3-Trichloropropane	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,2,4-Trimethylbenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
1,3,5-Trimethylbenzene	<5.13		ug/kg dry	5.13	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B

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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-43 (MW-22 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 17:25**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Vinyl chloride	<15.4		ug/kg dry	15.4	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Xylenes, total	<15.4		ug/kg dry	15.4	0.83	04/09/11 13:43	EEE	11D0407	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*101 %*								
Surr: Toluene-d8 (80-120%)	*94 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*105 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	237	04/12/11 03:57	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**33.4**		mg/kg	18.9	1	04/07/11 23:55	jdb	[CALC]	OA-2 - 8015B
Diesel	<18.9		mg/kg	18.9	1.89	04/07/11 23:55	jdb	11D0140	OA-2 - 8015B
Gasoline	<18.9		mg/kg	18.9	1.89	04/07/11 23:55	jdb	11D0140	OA-2 - 8015B
Motor Oil	**33.4**		mg/kg	18.9	1.89	04/07/11 23:55	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*117 %*								
HEM									
HEM (Oil & Grease)	**330**	J	mg/Kg dry	620	1	04/13/11 13:33	MTB	110190	9071B OG Dry
Sample ID: CUD0086-44 (MW-22 5-10 - Soil)					**Sampled: 03/30/11 17:35**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**73.8**		%	0.100	1	04/05/11 14:39	sas	11D0159	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**9.27**		mg/kg dry	1.35	0.973	04/12/11 01:25	kmd	11D0274	SW 7060A
Barium	**366**		mg/kg dry	0.677	0.956	04/14/11 05:10	cjt	11D0349	SW 6010B
Cadmium	<1.35		mg/kg dry	1.35	0.956	04/14/11 05:10	cjt	11D0349	SW 6010B
Chromium	**28.8**		mg/kg dry	1.35	0.956	04/14/11 05:10	cjt	11D0349	SW 6010B
Lead	**14.8**		mg/kg dry	6.77	0.956	04/14/11 05:10	cjt	11D0349	SW 6010B
Mercury	**0.0384**		mg/kg dry	0.0234	0.865	04/06/11 14:04	kmd	11D0191	SW 7471A
Selenium	<10.2		mg/kg dry	10.2	0.956	04/14/11 05:10	cjt	11D0349	SW 6010B
Silver	<1.35		mg/kg dry	1.35	0.956	04/14/11 05:10	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<53.7	L1	ug/kg dry	53.7	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Acrylonitrile	<53.7		ug/kg dry	53.7	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Benzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Bromobenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Bromochloromethane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Bromodichloromethane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Bromoform	<10.7		ug/kg dry	10.7	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Bromomethane	<21.5		ug/kg dry	21.5	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
2-Butanone (MEK)	<53.7		ug/kg dry	53.7	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
n-Butylbenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
sec-Butylbenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
tert-Butylbenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Carbon disulfide	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Carbon Tetrachloride	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-44 (MW-22 5-10 - Soil) - cont.					**Sampled: 03/30/11 17:35**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
Chlorobenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Chlorodibromomethane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Chloroethane	**75.2**		ug/kg dry	21.5	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Chloroform	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Chloromethane	<21.5		ug/kg dry	21.5	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
2-Chlorotoluene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
4-Chlorotoluene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,2-Dibromo-3-chloropropane	<53.7		ug/kg dry	53.7	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,2-Dibromoethane (EDB)	<53.7		ug/kg dry	53.7	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Dibromomethane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,2-Dichlorobenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,3-Dichlorobenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,4-Dichlorobenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Dichlorodifluoromethane	<16.1		ug/kg dry	16.1	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,1-Dichloroethane	**37.8**		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,2-Dichloroethane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,1-Dichloroethene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
cis-1,2-Dichloroethene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
trans-1,2-Dichloroethene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,2-Dichloropropane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,3-Dichloropropane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
2,2-Dichloropropane	<21.5		ug/kg dry	21.5	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,1-Dichloropropene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
cis-1,3-Dichloropropene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
trans-1,3-Dichloropropene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Ethylbenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Hexachlorobutadiene	<26.9		ug/kg dry	26.9	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Hexane	<26.9		ug/kg dry	26.9	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Isopropylbenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
p-Isopropyltoluene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Methylene Chloride	<53.7		ug/kg dry	53.7	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Methyl tert-Butyl Ether	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Naphthalene	<26.9		ug/kg dry	26.9	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
n-Propylbenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Styrene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,1,1,2-Tetrachloroethane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,1,2,2-Tetrachloroethane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Tetrachloroethene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Toluene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,2,3-Trichlorobenzene	<26.9		ug/kg dry	26.9	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,2,4-Trichlorobenzene	<26.9		ug/kg dry	26.9	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,1,1-Trichloroethane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-44 (MW-22 5-10 - Soil) - cont.					**Sampled: 03/30/11 17:35**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2-Trichloroethane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Trichloroethene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Trichlorofluoromethane	<21.5		ug/kg dry	21.5	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,2,3-Trichloropropane	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,2,4-Trimethylbenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
1,3,5-Trimethylbenzene	<5.37		ug/kg dry	5.37	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Vinyl chloride	<16.1		ug/kg dry	16.1	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Xylenes, total	<16.1		ug/kg dry	16.1	0.794	04/09/11 14:14	EEE	11D0407	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*104 %*								
Surr: Toluene-d8 (80-120%)	*94 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*104 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	**114**	B	mg/kg	10.0	237	04/12/11 04:32	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**5850**		mg/kg	150	15	04/08/11 04:03	jdb	[CALC]	OA-2 - 8015B
Diesel	**1210**		mg/kg	150	14.7	04/08/11 04:03	jdb	11D0140	OA-2 - 8015B
Gasoline	**480**	Q	mg/kg	10.0	0.978	04/06/11 23:53	jdb	11D0140	OA-2 - 8015B
Motor Oil	**4160**		mg/kg	150	14.7	04/08/11 04:03	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*2490 %*	*ZX*							
Polychlorinated Biphenyls by EPA Method 8082									
PCB-1016	<0.677	RL1	mg/kg dry	0.677	9.79	04/05/11 20:06	jar	11D0081	SW 8082
PCB-1221	<0.677	RL1	mg/kg dry	0.677	9.79	04/05/11 20:06	jar	11D0081	SW 8082
PCB-1232	<0.677	RL1	mg/kg dry	0.677	9.79	04/05/11 20:06	jar	11D0081	SW 8082
PCB-1242	<0.677	RL1	mg/kg dry	0.677	9.79	04/05/11 20:06	jar	11D0081	SW 8082
PCB-1248	<0.677	RL1	mg/kg dry	0.677	9.79	04/05/11 20:06	jar	11D0081	SW 8082
PCB-1254	<0.677	RL1	mg/kg dry	0.677	9.79	04/05/11 20:06	jar	11D0081	SW 8082
PCB-1260	<0.677	RL1	mg/kg dry	0.677	9.79	04/05/11 20:06	jar	11D0081	SW 8082
PCB-1268	<0.677	RL1	mg/kg dry	0.677	9.79	04/05/11 20:06	jar	11D0081	SW 8082
Surr: Decachlorobiphenyl (55-120%)	*72 %*	*RL1*							
Surr: Tetrachloro-meta-xylene (45-105%)	*69 %*	*RL1*							
HEM									
HEM (Oil & Grease)	**5000**		mg/Kg dry	670	1	04/13/11 13:49	MTB	110190	9071B OG Dry
Sample ID: CUD0086-45 (MW-22 10-12 - Soil)					**Sampled: 03/30/11 17:40**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**85.9**		%	0.100	1	04/05/11 14:39	sas	11D0159	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**4.34**		mg/kg dry	1.16	0.947	04/12/11 01:29	kmd	11D0274	SW 7060A
Barium	**66.1**		mg/kg dry	0.582	0.975	04/14/11 05:15	cjt	11D0349	SW 6010B
Cadmium	<1.16		mg/kg dry	1.16	0.975	04/14/11 05:15	cjt	11D0349	SW 6010B
Chromium	**15.2**		mg/kg dry	1.16	0.975	04/14/11 05:15	cjt	11D0349	SW 6010B
Lead	**11.3**		mg/kg dry	5.82	0.975	04/14/11 05:15	cjt	11D0349	SW 6010B
Mercury	<0.0203		mg/kg dry	0.0203	0.87	04/06/11 14:06	kmd	11D0191	SW 7471A

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-45 (MW-22 10-12 - Soil) - cont.					**Sampled: 03/30/11 17:40**		**Recvd: 04/01/11 09:31**		
Total Metals by SW 846 Series Methods - cont.									
Selenium	<8.74		mg/kg dry	8.74	0.975	04/14/11 05:15	cjt	11D0349	SW 6010B
Silver	<1.16		mg/kg dry	1.16	0.975	04/14/11 05:15	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<48.9	L1	ug/kg dry	48.9	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Acrylonitrile	<48.9		ug/kg dry	48.9	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Benzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Bromobenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Bromochloromethane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Bromodichloromethane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Bromoform	<9.78		ug/kg dry	9.78	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Bromomethane	<19.6		ug/kg dry	19.6	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
2-Butanone (MEK)	<48.9		ug/kg dry	48.9	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
n-Butylbenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
sec-Butylbenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
tert-Butylbenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Carbon disulfide	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Carbon Tetrachloride	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Chlorobenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Chlorodibromomethane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Chloroethane	<19.6		ug/kg dry	19.6	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Chloroform	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Chloromethane	<19.6		ug/kg dry	19.6	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
2-Chlorotoluene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
4-Chlorotoluene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,2-Dibromo-3-chloropropane	<48.9		ug/kg dry	48.9	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,2-Dibromoethane (EDB)	<48.9		ug/kg dry	48.9	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Dibromomethane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,2-Dichlorobenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,3-Dichlorobenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,4-Dichlorobenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Dichlorodifluoromethane	<14.7		ug/kg dry	14.7	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,1-Dichloroethane	**48.5**		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,2-Dichloroethane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,1-Dichloroethene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
cis-1,2-Dichloroethene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
trans-1,2-Dichloroethene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,2-Dichloropropane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,3-Dichloropropane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
2,2-Dichloropropane	<19.6		ug/kg dry	19.6	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,1-Dichloropropene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
cis-1,3-Dichloropropene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
trans-1,3-Dichloropropene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B

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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-45 (MW-22 10-12 - Soil) - cont.					**Sampled: 03/30/11 17:40**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Ethylbenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Hexachlorobutadiene	<24.5		ug/kg dry	24.5	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Hexane	<24.5		ug/kg dry	24.5	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Isopropylbenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
p-Isopropyltoluene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Methylene Chloride	<48.9		ug/kg dry	48.9	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Methyl tert-Butyl Ether	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Naphthalene	<24.5		ug/kg dry	24.5	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
n-Propylbenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Styrene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,1,1,2-Tetrachloroethane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,1,2,2-Tetrachloroethane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Tetrachloroethene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Toluene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,2,3-Trichlorobenzene	<24.5		ug/kg dry	24.5	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,2,4-Trichlorobenzene	<24.5		ug/kg dry	24.5	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,1,1-Trichloroethane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,1,2-Trichloroethane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Trichloroethene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Trichlorofluoromethane	<19.6		ug/kg dry	19.6	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,2,3-Trichloropropane	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,2,4-Trimethylbenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
1,3,5-Trimethylbenzene	<4.89		ug/kg dry	4.89	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Vinyl chloride	<14.7		ug/kg dry	14.7	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Xylenes, total	<14.7		ug/kg dry	14.7	0.84	04/09/11 14:45	EEE	11D0407	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*96 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*103 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	238	04/12/11 05:07	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**10.8**		mg/kg	10.0	1	04/08/11 00:36	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.984	04/08/11 00:36	jdb	11D0140	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.984	04/08/11 00:36	jdb	11D0140	OA-2 - 8015B
Motor Oil	**10.8**		mg/kg	10.0	0.984	04/08/11 00:36	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*111 %*								
HEM									
HEM (Oil & Grease)	<570		mg/Kg dry	570	1	04/13/11 14:05	MTB	110190	9071B OG Dry

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-46 (MW-23 0-2.5 - Soil)					**Sampled: 03/30/11 18:15**			**Recvd: 04/01/11 09:31**	
General Chemistry Parameters									
% Solids	**84.0**		%	0.100	1	04/05/11 14:39	sas	11D0159	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**4.86**		mg/kg dry	1.19	0.992	04/12/11 01:32	kmd	11D0274	SW 7060A
Barium	**114**		mg/kg dry	0.595	0.98	04/14/11 05:20	cjt	11D0349	SW 6010B
Cadmium	<1.19		mg/kg dry	1.19	0.98	04/14/11 05:20	cjt	11D0349	SW 6010B
Chromium	**20.6**		mg/kg dry	1.19	0.98	04/14/11 05:20	cjt	11D0349	SW 6010B
Lead	**8.96**		mg/kg dry	5.95	0.98	04/14/11 05:20	cjt	11D0349	SW 6010B
Mercury	<0.0238		mg/kg dry	0.0238	0.963	04/06/11 14:07	kmd	11D0191	SW 7471A
Selenium	<8.93		mg/kg dry	8.93	0.98	04/14/11 05:20	cjt	11D0349	SW 6010B
Silver	<1.19		mg/kg dry	1.19	0.98	04/14/11 05:20	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<59.5	L1	ug/kg dry	59.5	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Acrylonitrile	<59.5		ug/kg dry	59.5	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Benzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Bromobenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Bromochloromethane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Bromodichloromethane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Bromoform	<11.9		ug/kg dry	11.9	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Bromomethane	<23.8		ug/kg dry	23.8	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
2-Butanone (MEK)	<59.5		ug/kg dry	59.5	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
n-Butylbenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
sec-Butylbenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
tert-Butylbenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Carbon disulfide	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Carbon Tetrachloride	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Chlorobenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Chlorodibromomethane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Chloroethane	<23.8		ug/kg dry	23.8	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Chloroform	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Chloromethane	<23.8		ug/kg dry	23.8	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
2-Chlorotoluene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
4-Chlorotoluene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,2-Dibromo-3-chloropropane	<59.5		ug/kg dry	59.5	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,2-Dibromoethane (EDB)	<59.5		ug/kg dry	59.5	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Dibromomethane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,2-Dichlorobenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,3-Dichlorobenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,4-Dichlorobenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Dichlorodifluoromethane	<17.9		ug/kg dry	17.9	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,1-Dichloroethane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,2-Dichloroethane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,1-Dichloroethene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-46 (MW-23 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 18:15**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
cis-1,2-Dichloroethene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
trans-1,2-Dichloroethene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,2-Dichloropropane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,3-Dichloropropane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
2,2-Dichloropropane	<23.8		ug/kg dry	23.8	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,1-Dichloropropene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
cis-1,3-Dichloropropene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
trans-1,3-Dichloropropene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Ethylbenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Hexachlorobutadiene	<29.8		ug/kg dry	29.8	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Hexane	<29.8		ug/kg dry	29.8	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Isopropylbenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
p-Isopropyltoluene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Methylene Chloride	<59.5		ug/kg dry	59.5	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Methyl tert-Butyl Ether	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Naphthalene	<29.8		ug/kg dry	29.8	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
n-Propylbenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Styrene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,1,1,2-Tetrachloroethane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,1,2,2-Tetrachloroethane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Tetrachloroethene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Toluene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,2,3-Trichlorobenzene	<29.8		ug/kg dry	29.8	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,2,4-Trichlorobenzene	<29.8		ug/kg dry	29.8	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,1,1-Trichloroethane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,1,2-Trichloroethane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Trichloroethene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Trichlorofluoromethane	<23.8		ug/kg dry	23.8	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,2,3-Trichloropropane	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,2,4-Trimethylbenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
1,3,5-Trimethylbenzene	<5.95		ug/kg dry	5.95	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Vinyl chloride	<17.9		ug/kg dry	17.9	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Xylenes, total	<17.9		ug/kg dry	17.9	0.911	04/09/11 15:16	EEE	11D0407	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*103 %*								
Surr: Toluene-d8 (80-120%)	*95 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*102 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	239	04/12/11 05:42	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	**22.0**		mg/kg	18.9	1	04/07/11 22:33	jdb	[CALC]	OA-2 - 8015B
Diesel	<18.9		mg/kg	18.9	1.89	04/07/11 22:33	jdb	11D0140	OA-2 - 8015B
Gasoline	<18.9		mg/kg	18.9	1.89	04/07/11 22:33	jdb	11D0140	OA-2 - 8015B

TestAmerica Cedar Falls
Derrick Klinkenberg
Organics Manager

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-46 (MW-23 0-2.5 - Soil) - cont.					**Sampled: 03/30/11 18:15**		**Recvd: 04/01/11 09:31**		
UST ANALYSIS PARAMETERS - cont.									
Motor Oil	**22.0**		mg/kg	18.9	1.89	04/07/11 22:33	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*117 %*								
HEM									
HEM (Oil & Grease)	**140**	J	mg/Kg dry	580	1	04/13/11 14:21	MTB	110190	9071B OG Dry
Sample ID: CUD0086-47 (MW-23 2.5-5 - Soil)					**Sampled: 03/30/11 18:20**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**81.7**		%	0.100	1	04/05/11 14:39	sas	11D0159	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**1.48**		mg/kg dry	1.22	0.931	04/12/11 01:41	kmd	11D0274	SW 7060A
Barium	**93.3**		mg/kg dry	0.612	0.99	04/14/11 05:25	cjt	11D0349	SW 6010B
Cadmium	<1.22		mg/kg dry	1.22	0.99	04/14/11 05:25	cjt	11D0349	SW 6010B
Chromium	**20.3**		mg/kg dry	1.22	0.99	04/14/11 05:25	cjt	11D0349	SW 6010B
Lead	**10.2**		mg/kg dry	6.12	0.99	04/14/11 05:25	cjt	11D0349	SW 6010B
Mercury	**0.0336**		mg/kg dry	0.0245	1	04/06/11 14:09	kmd	11D0191	SW 7471A
Selenium	<9.18		mg/kg dry	9.18	0.99	04/14/11 05:25	cjt	11D0349	SW 6010B
Silver	<1.22		mg/kg dry	1.22	0.99	04/14/11 05:25	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<51.3	L1	ug/kg dry	51.3	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Acrylonitrile	<51.3		ug/kg dry	51.3	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Benzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Bromobenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Bromochloromethane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Bromodichloromethane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Bromoform	<10.3		ug/kg dry	10.3	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Bromomethane	<20.5		ug/kg dry	20.5	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
2-Butanone (MEK)	<51.3		ug/kg dry	51.3	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
n-Butylbenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
sec-Butylbenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
tert-Butylbenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Carbon disulfide	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Carbon Tetrachloride	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Chlorobenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Chlorodibromomethane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Chloroethane	<20.5		ug/kg dry	20.5	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Chloroform	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Chloromethane	<20.5		ug/kg dry	20.5	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
2-Chlorotoluene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
4-Chlorotoluene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,2-Dibromo-3-chloropropane	<51.3		ug/kg dry	51.3	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,2-Dibromoethane (EDB)	<51.3		ug/kg dry	51.3	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Dibromomethane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,2-Dichlorobenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Sample ID: CUD0086-47 (MW-23 2.5-5 - Soil) - cont. **Sampled: 03/30/11 18:20** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
1,3-Dichlorobenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,4-Dichlorobenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Dichlorodifluoromethane	<15.4		ug/kg dry	15.4	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,1-Dichloroethane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,2-Dichloroethane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,1-Dichloroethene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
cis-1,2-Dichloroethene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
trans-1,2-Dichloroethene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,2-Dichloropropane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,3-Dichloropropane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
2,2-Dichloropropane	<20.5		ug/kg dry	20.5	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,1-Dichloropropene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
cis-1,3-Dichloropropene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
trans-1,3-Dichloropropene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Ethylbenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Hexachlorobutadiene	<25.7		ug/kg dry	25.7	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Hexane	<25.7		ug/kg dry	25.7	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Isopropylbenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
p-Isopropyltoluene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Methylene Chloride	<51.3		ug/kg dry	51.3	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Methyl tert-Butyl Ether	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Naphthalene	<25.7		ug/kg dry	25.7	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
n-Propylbenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Styrene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,1,1,2-Tetrachloroethane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,1,2,2-Tetrachloroethane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Tetrachloroethene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Toluene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,2,3-Trichlorobenzene	<25.7		ug/kg dry	25.7	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,2,4-Trichlorobenzene	<25.7		ug/kg dry	25.7	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,1,1-Trichloroethane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,1,2-Trichloroethane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Trichloroethene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Trichlorofluoromethane	<20.5		ug/kg dry	20.5	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,2,3-Trichloropropane	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,2,4-Trimethylbenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
1,3,5-Trimethylbenzene	<5.13		ug/kg dry	5.13	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Vinyl chloride	<15.4		ug/kg dry	15.4	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Xylenes, total	<15.4		ug/kg dry	15.4	0.838	04/09/11 15:46	EEE	11D0407	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*102 %*								
Surr: Toluene-d8 (80-120%)	*95 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*103 %*								

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-47 (MW-23 2.5-5 - Soil) - cont.					**Sampled: 03/30/11 18:20**		**Recvd: 04/01/11 09:31**		
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	236	04/12/11 06:17	cmm	11D0582	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/07/11 02:01	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.99	04/07/11 02:01	jdb	11D0140	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.99	04/07/11 02:01	jdb	11D0140	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.99	04/07/11 02:01	jdb	11D0140	OA-2 - 8015B
Surr: Octacosane (50-150%)	*92 %*								
HEM									
HEM (Oil & Grease)	**220**	J	mg/Kg dry	610	1	04/13/11 14:37	MTB	110190	9071B OG Dry
Sample ID: CUD0086-48 (MW-23 5-7.5 - Soil)					**Sampled: 03/30/11 18:30**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**83.1**		%	0.100	1	04/05/11 14:39	sas	11D0159	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	<1.20		mg/kg dry	1.20	0.947	04/12/11 01:44	kmd	11D0274	SW 7060A
Barium	**56.7**		mg/kg dry	0.602	0.992	04/14/11 05:29	cjt	11D0349	SW 6010B
Cadmium	<1.20		mg/kg dry	1.20	0.992	04/14/11 05:29	cjt	11D0349	SW 6010B
Chromium	**17.9**		mg/kg dry	1.20	0.992	04/14/11 05:29	cjt	11D0349	SW 6010B
Lead	**6.53**		mg/kg dry	6.02	0.992	04/14/11 05:29	cjt	11D0349	SW 6010B
Mercury	<0.0241		mg/kg dry	0.0241	0.969	04/06/11 14:11	kmd	11D0191	SW 7471A
Selenium	<9.02		mg/kg dry	9.02	0.992	04/14/11 05:29	cjt	11D0349	SW 6010B
Silver	<1.20		mg/kg dry	1.20	0.992	04/14/11 05:29	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<48.1	L1	ug/kg dry	48.1	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Acrylonitrile	<48.1		ug/kg dry	48.1	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Benzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Bromobenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Bromochloromethane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Bromodichloromethane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Bromoform	<9.62		ug/kg dry	9.62	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Bromomethane	<19.2		ug/kg dry	19.2	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
2-Butanone (MEK)	<48.1		ug/kg dry	48.1	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
n-Butylbenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
sec-Butylbenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
tert-Butylbenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Carbon disulfide	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Carbon Tetrachloride	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Chlorobenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Chlorodibromomethane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Chloroethane	<19.2		ug/kg dry	19.2	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Chloroform	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Chloromethane	<19.2		ug/kg dry	19.2	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
2-Chlorotoluene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-48 (MW-23 5-7.5 - Soil) - cont.					**Sampled: 03/30/11 18:30**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
4-Chlorotoluene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,2-Dibromo-3-chloropropane	<48.1		ug/kg dry	48.1	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,2-Dibromoethane (EDB)	<48.1		ug/kg dry	48.1	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Dibromomethane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,2-Dichlorobenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,3-Dichlorobenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,4-Dichlorobenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Dichlorodifluoromethane	<14.4		ug/kg dry	14.4	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,1-Dichloroethane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,2-Dichloroethane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,1-Dichloroethene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
cis-1,2-Dichloroethene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
trans-1,2-Dichloroethene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,2-Dichloropropane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,3-Dichloropropane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
2,2-Dichloropropane	<19.2		ug/kg dry	19.2	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,1-Dichloropropene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
cis-1,3-Dichloropropene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
trans-1,3-Dichloropropene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Ethylbenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Hexachlorobutadiene	<24.0		ug/kg dry	24.0	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Hexane	<24.0		ug/kg dry	24.0	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Isopropylbenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
p-Isopropyltoluene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Methylene Chloride	<48.1		ug/kg dry	48.1	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Methyl tert-Butyl Ether	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Naphthalene	<24.0		ug/kg dry	24.0	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
n-Propylbenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Styrene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,1,1,2-Tetrachloroethane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,1,2,2-Tetrachloroethane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Tetrachloroethene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Toluene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,2,3-Trichlorobenzene	<24.0		ug/kg dry	24.0	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,2,4-Trichlorobenzene	<24.0		ug/kg dry	24.0	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,1,1-Trichloroethane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,1,2-Trichloroethane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Trichloroethene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Trichlorofluoromethane	<19.2		ug/kg dry	19.2	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,2,3-Trichloropropane	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,2,4-Trimethylbenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
1,3,5-Trimethylbenzene	<4.81		ug/kg dry	4.81	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-48 (MW-23 5-7.5 - Soil) - cont.					**Sampled: 03/30/11 18:30**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
Vinyl chloride	<14.4		ug/kg dry	14.4	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Xylenes, total	<14.4		ug/kg dry	14.4	0.799	04/09/11 16:17	EEE	11D0407	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*96 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*102 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	238	04/13/11 01:07	cmm	11D0549	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/08/11 11:37	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.981	04/08/11 11:37	jdb	11D0209	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.981	04/08/11 11:37	jdb	11D0209	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.981	04/08/11 11:37	jdb	11D0209	OA-2 - 8015B
Surr: Octacosane (50-150%)	*109 %*								
HEM									
HEM (Oil & Grease)	<590		mg/Kg dry	590	1	04/13/11 14:54	MTB	110190	9071B OG Dry
Sample ID: CUD0086-49 (MW-23 7.5-10 - Soil)					**Sampled: 03/30/11 18:35**		**Recvd: 04/01/11 09:31**		
General Chemistry Parameters									
% Solids	**84.5**		%	0.100	1	04/05/11 14:39	sas	11D0159	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**2.11**		mg/kg dry	1.18	0.961	04/12/11 01:47	kmd	11D0274	SW 7060A
Barium	**28.2**		mg/kg dry	0.592	0.949	04/14/11 05:34	cjt	11D0349	SW 6010B
Cadmium	<1.18		mg/kg dry	1.18	0.949	04/14/11 05:34	cjt	11D0349	SW 6010B
Chromium	**9.39**		mg/kg dry	1.18	0.949	04/14/11 05:34	cjt	11D0349	SW 6010B
Lead	<5.92		mg/kg dry	5.92	0.949	04/14/11 05:34	cjt	11D0349	SW 6010B
Mercury	<0.0237		mg/kg dry	0.0237	0.933	04/06/11 14:16	kmd	11D0191	SW 7471A
Selenium	<8.88		mg/kg dry	8.88	0.949	04/14/11 05:34	cjt	11D0349	SW 6010B
Silver	<1.18		mg/kg dry	1.18	0.949	04/14/11 05:34	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<50.9	L1	ug/kg dry	50.9	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Acrylonitrile	<50.9		ug/kg dry	50.9	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Benzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Bromobenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Bromochloromethane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Bromodichloromethane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Bromoform	<10.2		ug/kg dry	10.2	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Bromomethane	<20.3		ug/kg dry	20.3	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
2-Butanone (MEK)	<50.9		ug/kg dry	50.9	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
n-Butylbenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
sec-Butylbenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
tert-Butylbenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Carbon disulfide	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Carbon Tetrachloride	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B

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Received: 04/01/11
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ANALYTICAL REPORT

Sample ID: CUD0086-49 (MW-23 7.5-10 - Soil) - cont. **Sampled: 03/30/11 18:35** **Recvd: 04/01/11 09:31**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Chlorobenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Chlorodibromomethane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Chloroethane	**48.7**		ug/kg dry	20.3	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Chloroform	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Chloromethane	<20.3		ug/kg dry	20.3	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
2-Chlorotoluene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
4-Chlorotoluene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,2-Dibromo-3-chloropropane	<50.9		ug/kg dry	50.9	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,2-Dibromoethane (EDB)	<50.9		ug/kg dry	50.9	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Dibromomethane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,2-Dichlorobenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,3-Dichlorobenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,4-Dichlorobenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Dichlorodifluoromethane	<15.3		ug/kg dry	15.3	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,1-Dichloroethane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,2-Dichloroethane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,1-Dichloroethene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
cis-1,2-Dichloroethene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
trans-1,2-Dichloroethene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,2-Dichloropropane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,3-Dichloropropane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
2,2-Dichloropropane	<20.3		ug/kg dry	20.3	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,1-Dichloropropene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
cis-1,3-Dichloropropene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
trans-1,3-Dichloropropene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Ethylbenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Hexachlorobutadiene	<25.4		ug/kg dry	25.4	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Hexane	<25.4		ug/kg dry	25.4	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Isopropylbenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
p-Isopropyltoluene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Methylene Chloride	<50.9		ug/kg dry	50.9	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Methyl tert-Butyl Ether	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Naphthalene	<25.4		ug/kg dry	25.4	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
n-Propylbenzene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Styrene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,1,1,2-Tetrachloroethane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,1,2,2-Tetrachloroethane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Tetrachloroethene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Toluene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,2,3-Trichlorobenzene	<25.4		ug/kg dry	25.4	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,2,4-Trichlorobenzene	<25.4		ug/kg dry	25.4	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,1,1-Trichloroethane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-49 (MW-23 7.5-10 - Soil) - cont.					**Sampled: 03/30/11 18:35**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
1,1,2-Trichloroethane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Trichloroethene	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Trichlorofluoromethane	<20.3		ug/kg dry	20.3	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,2,3-Trichloropropane	<5.09		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,2,4-Trimethylbenzene	**16.2**		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
1,3,5-Trimethylbenzene	**5.42**		ug/kg dry	5.09	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Vinyl chloride	<15.3		ug/kg dry	15.3	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Xylenes, total	<15.3		ug/kg dry	15.3	0.86	04/09/11 16:48	EEE	11D0407	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*96 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*102 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	233	04/13/11 01:44	cmm	11D0549	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<10.0		mg/kg	10.0	1	04/08/11 12:19	jdb	[CALC]	OA-2 - 8015B
Diesel	<10.0		mg/kg	10.0	0.995	04/08/11 12:19	jdb	11D0209	OA-2 - 8015B
Gasoline	<10.0		mg/kg	10.0	0.995	04/08/11 12:19	jdb	11D0209	OA-2 - 8015B
Motor Oil	<10.0		mg/kg	10.0	0.995	04/08/11 12:19	jdb	11D0209	OA-2 - 8015B
Surr: Octacosane (50-150%)	*105 %*								
Polychlorinated Biphenyls by EPA Method 8082									
PCB-1016	<0.0592		mg/kg dry	0.0592	0.973	04/05/11 20:16	jar	11D0081	SW 8082
PCB-1221	<0.0592		mg/kg dry	0.0592	0.973	04/05/11 20:16	jar	11D0081	SW 8082
PCB-1232	<0.0592		mg/kg dry	0.0592	0.973	04/05/11 20:16	jar	11D0081	SW 8082
PCB-1242	<0.0592		mg/kg dry	0.0592	0.973	04/05/11 20:16	jar	11D0081	SW 8082
PCB-1248	<0.0592		mg/kg dry	0.0592	0.973	04/05/11 20:16	jar	11D0081	SW 8082
PCB-1254	<0.0592		mg/kg dry	0.0592	0.973	04/05/11 20:16	jar	11D0081	SW 8082
PCB-1260	<0.0592		mg/kg dry	0.0592	0.973	04/05/11 20:16	jar	11D0081	SW 8082
PCB-1268	<0.0592		mg/kg dry	0.0592	0.973	04/05/11 20:16	jar	11D0081	SW 8082
Surr: Decachlorobiphenyl (55-120%)	*71 %*								
Surr: Tetrachloro-meta-xylene (45-105%)	*60 %*								
HEM									
HEM (Oil & Grease)	<570		mg/Kg dry	570	1	04/13/11 15:10	MTB	110190	9071B OG Dry

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-50 (MW-23 10-12 - Soil)					**Sampled: 03/30/11 18:40**			**Recvd: 04/01/11 09:31**	
General Chemistry Parameters									
% Solids	**87.3**		%	0.100	1	04/05/11 14:39	sas	11D0159	SM 2540 G
Total Metals by SW 846 Series Methods									
Arsenic	**5.16**		mg/kg dry	1.15	0.985	04/12/11 01:51	kmd	11D0274	SW 7060A
Barium	**47.7**		mg/kg dry	0.573	0.971	04/14/11 05:58	cjt	11D0349	SW 6010B
Cadmium	<1.15		mg/kg dry	1.15	0.971	04/14/11 05:58	cjt	11D0349	SW 6010B
Chromium	**10.2**	R	mg/kg dry	1.15	0.971	04/14/11 05:58	cjt	11D0349	SW 6010B
Lead	**9.91**		mg/kg dry	5.73	0.971	04/14/11 05:58	cjt	11D0349	SW 6010B
Mercury	<0.0229		mg/kg dry	0.0229	0.966	04/06/11 14:18	kmd	11D0191	SW 7471A
Selenium	<8.59		mg/kg dry	8.59	0.971	04/14/11 05:58	cjt	11D0349	SW 6010B
Silver	<1.15		mg/kg dry	1.15	0.971	04/14/11 05:58	cjt	11D0349	SW 6010B
Volatile Organic Compounds									
Acetone	<46.3	L1	ug/kg dry	46.3	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Acrylonitrile	<46.3		ug/kg dry	46.3	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Benzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Bromobenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Bromochloromethane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Bromodichloromethane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Bromoform	<9.27		ug/kg dry	9.27	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Bromomethane	<18.5		ug/kg dry	18.5	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
2-Butanone (MEK)	<46.3		ug/kg dry	46.3	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
n-Butylbenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
sec-Butylbenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
tert-Butylbenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Carbon disulfide	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Carbon Tetrachloride	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Chlorobenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Chlorodibromomethane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Chloroethane	<18.5		ug/kg dry	18.5	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Chloroform	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Chloromethane	<18.5		ug/kg dry	18.5	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
2-Chlorotoluene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
4-Chlorotoluene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,2-Dibromo-3-chloropropane	<46.3		ug/kg dry	46.3	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,2-Dibromoethane (EDB)	<46.3		ug/kg dry	46.3	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Dibromomethane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,2-Dichlorobenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,3-Dichlorobenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,4-Dichlorobenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Dichlorodifluoromethane	<13.9		ug/kg dry	13.9	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,1-Dichloroethane	**17.8**		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,2-Dichloroethane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,1-Dichloroethene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-50 (MW-23 10-12 - Soil) - cont.					**Sampled: 03/30/11 18:40**		**Recvd: 04/01/11 09:31**		
Volatile Organic Compounds - cont.									
cis-1,2-Dichloroethene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
trans-1,2-Dichloroethene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,2-Dichloropropane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,3-Dichloropropane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
2,2-Dichloropropane	<18.5		ug/kg dry	18.5	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,1-Dichloropropene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
cis-1,3-Dichloropropene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
trans-1,3-Dichloropropene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Ethylbenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Hexachlorobutadiene	<23.2		ug/kg dry	23.2	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Hexane	<23.2		ug/kg dry	23.2	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Isopropylbenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
p-Isopropyltoluene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Methylene Chloride	<46.3		ug/kg dry	46.3	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Methyl tert-Butyl Ether	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Naphthalene	<23.2		ug/kg dry	23.2	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
n-Propylbenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Styrene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,1,1,2-Tetrachloroethane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,1,2,2-Tetrachloroethane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Tetrachloroethene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Toluene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,2,3-Trichlorobenzene	<23.2		ug/kg dry	23.2	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,2,4-Trichlorobenzene	<23.2		ug/kg dry	23.2	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,1,1-Trichloroethane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,1,2-Trichloroethane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Trichloroethene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Trichlorofluoromethane	<18.5		ug/kg dry	18.5	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,2,3-Trichloropropane	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,2,4-Trimethylbenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
1,3,5-Trimethylbenzene	<4.63		ug/kg dry	4.63	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Vinyl chloride	<13.9		ug/kg dry	13.9	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Xylenes, total	<13.9		ug/kg dry	13.9	0.809	04/09/11 17:18	EEE	11D0407	SW 8260B
Surr: Dibromofluoromethane (75-125%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*98 %*								
Surr: 4-Bromofluorobenzene (80-120%)	*104 %*								
UST Volatile Compounds by GC									
TPH as Gasoline	<10.0		mg/kg	10.0	239	04/13/11 02:21	cmm	11D0549	OA-1
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	<19.4		mg/kg	19.4	1	04/08/11 13:00	jdb	[CALC]	OA-2 - 8015B
Diesel	<19.4		mg/kg	19.4	1.94	04/08/11 13:00	jdb	11D0209	OA-2 - 8015B
Gasoline	<19.4		mg/kg	19.4	1.94	04/08/11 13:00	jdb	11D0209	OA-2 - 8015B

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Received: 04/01/11
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-50 (MW-23 10-12 - Soil) - cont.					**Sampled: 03/30/11 18:40**			**Recvd: 04/01/11 09:31**	
UST ANALYSIS PARAMETERS - cont.									
Motor Oil	<19.4		mg/kg	19.4	1.94	04/08/11 13:00	jdb	11D0209	OA-2 - 8015B
Surr: Octacosane (50-150%)	*103 %*								
HEM									
HEM (Oil & Grease)	**120**	J	mg/Kg dry	570	1	04/13/11 15:26	MTB	110190	9071B OG Dry
Sample ID: CUD0086-51 (Trip Blank (L-H) - Water)					**Sampled: 03/29/11**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Benzene	<0.500		ug/L	0.500	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Bromomethane	<5.00	CIN	ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	04/03/11 03:12	sjn	11D0111	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Chloromethane	<3.00	CIN	ug/L	3.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
2,2-Dichloropropane	<4.00	CIN	ug/L	4.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-51 (Trip Blank (L-H) - Water) - cont.					**Sampled: 03/29/11**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
1,1-Dichloropropene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Hexane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Methyl tert-Butyl Ether	<1.00	C9	ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Styrene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00	CIN	ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Toluene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	04/03/11 03:12	sjn	11D0111	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*96 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	04/05/11 12:10	ztb	11D0144	SW

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-52 (Trip Blank (L-6) - Water)					**Sampled: 03/30/11**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Benzene	<0.500		ug/L	0.500	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Bromomethane	<5.00	CIN	ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	04/03/11 03:38	sjn	11D0111	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Chloromethane	<3.00	CIN	ug/L	3.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
2,2-Dichloropropane	<4.00	CIN	ug/L	4.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Hexane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUD0086-52 (Trip Blank (L-6) - Water) - cont.					**Sampled: 03/30/11**			**Recvd: 04/01/11 09:31**	
Volatile Organic Compounds - cont.									
Isopropylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Methyl tert-Butyl Ether	<1.00	C9	ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Styrene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00	CIN	ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Toluene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	04/03/11 03:38	sjn	11D0111	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*90 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*98 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	04/05/11 12:10	ztb	11D0144	SW

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Polychlorinated Biphenyls by EPA Method 8082							
SW 8082	11D0081	CUD0086-07	30.12	10.00	04/04/11 06:50	AM	SW 3550B GC
SW 8082	11D0081	CUD0086-12	30.30	10.00	04/04/11 06:50	AM	SW 3550B GC
SW 8082	11D0081	CUD0086-19	30.32	10.00	04/04/11 06:50	AM	SW 3550B GC
SW 8082	11D0081	CUD0086-22	30.45	10.00	04/04/11 06:50	AM	SW 3550B GC
SW 8082	11D0081	CUD0086-29	30.74	10.00	04/04/11 06:50	AM	SW 3550B GC
SW 8082	11D0081	CUD0086-32	30.71	10.00	04/04/11 06:50	AM	SW 3550B GC
SW 8082	11D0081	CUD0086-35	30.55	10.00	04/04/11 06:50	AM	SW 3550B GC
SW 8082	11D0081	CUD0086-40	30.56	10.00	04/04/11 06:50	AM	SW 3550B GC
SW 8082	11D0081	CUD0086-44	30.63	10.00	04/04/11 06:50	AM	SW 3550B GC
SW 8082	11D0081	CUD0086-49	30.84	10.00	04/04/11 06:50	AM	SW 3550B GC
Total Metals by SW 846 Series Methods							
SW 6010B	11D0252	CUD0086-01	1.11	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-02	1.03	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-03	1.10	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-04	1.08	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-05	1.03	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-06	1.07	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-07	1.01	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-08	1.05	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-09	1.03	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-10	1.02	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-11	1.04	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-12	1.02	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-13	1.05	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-14	1.09	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-15	1.06	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-16	1.02	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-17	1.09	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-18	1.05	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0252	CUD0086-19	1.03	50.00	04/07/11 07:52	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-20	1.03	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-21	1.08	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-22	1.10	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-23	1.09	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-24	1.08	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-25	1.08	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-26	1.05	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-27	1.10	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-28	1.05	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-29	1.10	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-30	1.01	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-31	1.02	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-32	1.08	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-33	1.05	50.00	04/07/11 07:58	CJT	SW 3050B

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
SW 6010B	11D0253	CUD0086-34	1.02	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-35	1.05	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-36	1.02	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-37	1.04	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-38	1.03	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0253	CUD0086-39	1.02	50.00	04/07/11 07:58	CJT	SW 3050B
SW 6010B	11D0349	CUD0086-40	1.03	50.00	04/08/11 10:52	KMD	SW 3050B
SW 6010B	11D0349	CUD0086-41	1.03	50.00	04/08/11 10:52	KMD	SW 3050B
SW 6010B	11D0349	CUD0086-42	1.02	50.00	04/08/11 10:52	KMD	SW 3050B
SW 6010B	11D0349	CUD0086-43	1.00	50.00	04/08/11 10:52	KMD	SW 3050B
SW 6010B	11D0349	CUD0086-44	1.05	50.00	04/08/11 10:52	KMD	SW 3050B
SW 6010B	11D0349	CUD0086-45	1.03	50.00	04/08/11 10:52	KMD	SW 3050B
SW 6010B	11D0349	CUD0086-46	1.02	50.00	04/08/11 10:52	KMD	SW 3050B
SW 6010B	11D0349	CUD0086-47	1.01	50.00	04/08/11 10:52	KMD	SW 3050B
SW 6010B	11D0349	CUD0086-48	1.01	50.00	04/08/11 10:52	KMD	SW 3050B
SW 6010B	11D0349	CUD0086-49	1.05	50.00	04/08/11 10:52	KMD	SW 3050B
SW 6010B	11D0349	CUD0086-50	1.03	50.00	04/08/11 10:52	KMD	SW 3050B
SW 7060A	11D0137	CUD0086-01	1.06	50.00	04/05/11 09:26	KMD	SW 3050B GFAA
SW 7060A	11D0137	CUD0086-02	1.04	50.00	04/05/11 09:26	KMD	SW 3050B GFAA
SW 7060A	11D0137	CUD0086-03	1.03	50.00	04/05/11 09:26	KMD	SW 3050B GFAA
SW 7060A	11D0137	CUD0086-04	1.01	50.00	04/05/11 09:26	KMD	SW 3050B GFAA
SW 7060A	11D0137	CUD0086-05	1.04	50.00	04/05/11 09:26	KMD	SW 3050B GFAA
SW 7060A	11D0137	CUD0086-06	1.03	50.00	04/05/11 09:26	KMD	SW 3050B GFAA
SW 7060A	11D0137	CUD0086-07	1.08	50.00	04/05/11 09:26	KMD	SW 3050B GFAA
SW 7060A	11D0137	CUD0086-08	1.02	50.00	04/05/11 09:26	KMD	SW 3050B GFAA
SW 7060A	11D0137	CUD0086-09	1.04	50.00	04/05/11 09:26	KMD	SW 3050B GFAA
SW 7060A	11D0137	CUD0086-10	1.01	50.00	04/05/11 09:26	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-11	1.06	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-12	1.05	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-13	1.10	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-14	1.06	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-15	1.03	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-16	1.06	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-17	1.03	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-18	1.03	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-19	1.08	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-20	1.03	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-21	1.11	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-22	1.10	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-23	1.06	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-24	1.09	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-25	1.05	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-26	1.00	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-27	1.06	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-28	1.02	50.00	04/06/11 12:22	KMD	SW 3050B GFAA

GOLDER ASSOCIATES - MANCHESTER, NH
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SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
SW 7060A	11D0218	CUD0086-29	1.05	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0218	CUD0086-30	1.08	50.00	04/06/11 12:22	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-31	1.01	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-32	1.01	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-33	1.06	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-34	1.04	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-35	1.09	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-36	1.08	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-37	1.05	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-38	1.09	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-39	1.02	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-40	1.02	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-41	1.11	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-42	1.02	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-43	1.06	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-44	1.03	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-45	1.06	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-46	1.01	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-47	1.07	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-48	1.06	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-49	1.04	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7060A	11D0274	CUD0086-50	1.02	50.00	04/07/11 10:57	KMD	SW 3050B GFAA
SW 7471A	11D0189	CUD0086-01	0.65	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-02	0.61	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-03	0.64	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-04	0.69	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-05	0.65	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-06	0.60	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-07	0.61	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-08	0.60	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-09	0.62	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-10	0.60	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-11	0.60	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-12	0.62	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-13	0.60	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-14	0.67	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-15	0.65	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0189	CUD0086-16	0.62	30.00	04/06/11 07:59	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-17	0.65	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-18	0.62	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-19	0.69	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-20	0.66	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-21	0.62	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-22	0.62	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-23	0.62	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.

GOLDER ASSOCIATES - MANCHESTER, NH
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SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
SW 7471A	11D0190	CUD0086-24	0.66	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-25	0.65	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-26	0.62	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-27	0.62	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-28	0.66	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-29	0.65	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-30	0.62	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-31	0.68	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-32	0.66	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-33	0.65	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-34	0.62	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-35	0.62	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0190	CUD0086-36	0.65	30.00	04/06/11 08:05	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-37	0.65	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-38	0.65	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-39	0.63	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-40	0.66	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-41	0.67	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-42	0.62	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-43	0.61	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-44	0.69	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-45	0.69	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-46	0.62	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-47	0.60	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-48	0.62	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-49	0.64	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
SW 7471A	11D0191	CUD0086-50	0.62	30.00	04/06/11 08:09	KMD	EPA 245.2/SW 7470.
UST ANALYSIS PARAMETERS							
OA-2 - 8015B	[CALC]	CUD0086-01	1.00	1.00	04/01/11 20:45		[CALC]
OA-2 - 8015B	11D0059	CUD0086-01	30.86	1.50	04/01/11 20:45	RAK	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-02	1.00	1.00	04/01/11 20:45		[CALC]
OA-2 - 8015B	11D0059	CUD0086-02	30.75	1.50	04/01/11 20:45	RAK	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-03	1.00	1.00	04/01/11 20:45		[CALC]
OA-2 - 8015B	11D0059	CUD0086-03	30.37	1.50	04/01/11 20:45	RAK	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-04	1.00	1.00	04/01/11 20:45		[CALC]
OA-2 - 8015B	11D0059	CUD0086-04	30.25	1.50	04/01/11 20:45	RAK	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-05	1.00	1.00	04/01/11 20:45		[CALC]
OA-2 - 8015B	11D0059	CUD0086-05	30.78	1.50	04/01/11 20:45	RAK	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-06	1.00	1.00	04/01/11 20:45		[CALC]
OA-2 - 8015B	11D0059	CUD0086-06	15.47	1.50	04/01/11 20:45	RAK	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-07	1.00	1.00	04/01/11 20:45		[CALC]
OA-2 - 8015B	11D0059	CUD0086-07	30.48	1.50	04/01/11 20:45	RAK	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-08	1.00	1.00	04/01/11 20:45		[CALC]
OA-2 - 8015B	11D0059	CUD0086-08	30.27	1.50	04/01/11 20:45	RAK	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-09	1.00	1.00	04/01/11 20:45		[CALC]

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SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
OA-2 - 8015B	11D0059	CUD0086-09	30.51	1.50	04/01/11 20:45	RAK	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-10	1.00	1.00	04/01/11 20:45		[CALC]
OA-2 - 8015B	11D0059	CUD0086-10	30.02	1.50	04/01/11 20:45	RAK	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-11	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-11	30.80	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-12	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-12	30.83	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-13	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-13	30.43	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-14	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-14	30.27	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-15	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-15	30.61	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-16	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-16	30.59	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-17	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-17	30.21	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-18	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-18	30.35	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-19	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-19	30.51	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-20	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-20	30.53	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-21	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-21	30.15	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-22	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-22	30.25	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-23	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-23	30.46	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-24	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-24	30.11	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-25	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-25	30.86	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-26	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-26	30.86	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-27	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-27	30.56	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-28	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-28	30.43	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-29	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-29	30.83	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-30	1.00	1.00	04/04/11 06:51		[CALC]
OA-2 - 8015B	11D0082	CUD0086-30	30.27	1.50	04/04/11 06:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-31	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-31	30.63	1.50	04/05/11 10:41	AM	SW 3550B GC

GOLDER ASSOCIATES - MANCHESTER, NH
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Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
OA-2 - 8015B	[CALC]	CUD0086-32	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-32	30.24	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-33	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-33	30.52	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-34	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-34	15.14	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-35	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-35	30.25	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	11D0140	CUD0086-35RE1	30.25	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-36	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-36	30.76	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-37	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-37	30.81	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-38	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-38	15.32	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-39	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-39	30.47	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	11D0140	CUD0086-39RE1	30.47	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-40	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-40	30.50	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	11D0140	CUD0086-40RE1	30.50	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-41	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-41	30.89	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-42	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-42	15.70	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-43	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-43	15.89	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-44	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-44	30.67	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	11D0140	CUD0086-44RE1	30.67	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-45	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-45	30.47	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-46	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-46	15.88	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-47	1.00	1.00	04/05/11 10:41		[CALC]
OA-2 - 8015B	11D0140	CUD0086-47	30.29	1.50	04/05/11 10:41	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-48	1.00	1.00	04/06/11 10:51		[CALC]
OA-2 - 8015B	11D0209	CUD0086-48	30.59	1.50	04/06/11 10:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-49	1.00	1.00	04/06/11 10:51		[CALC]
OA-2 - 8015B	11D0209	CUD0086-49	30.15	1.50	04/06/11 10:51	AM	SW 3550B GC
OA-2 - 8015B	[CALC]	CUD0086-50	1.00	1.00	04/06/11 10:51		[CALC]
OA-2 - 8015B	11D0209	CUD0086-50	15.46	1.50	04/06/11 10:51	AM	SW 3550B GC

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Reported: 05/05/11 08:34

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Total Metals by SW 846 Series Methods														
Arsenic	11D0137			mg/kg wet	N/A	1.00	<1.00							
Mercury	11D0189			mg/kg wet	N/A	0.0175	<0.0175							
Mercury	11D0190			mg/kg wet	N/A	0.0200	<0.0200							
Mercury	11D0191			mg/kg wet	N/A	0.0200	<0.0200							
Arsenic	11D0218			mg/kg wet	N/A	1.00	<1.00							
Barium	11D0252			mg/kg wet	N/A	0.500	<0.500							
Cadmium	11D0252			mg/kg wet	N/A	1.00	<1.00							
Chromium	11D0252			mg/kg wet	N/A	1.00	<1.00							
Lead	11D0252			mg/kg wet	N/A	5.00	<5.00							
Selenium	11D0252			mg/kg wet	N/A	7.50	<7.50							
Silver	11D0252			mg/kg wet	N/A	1.00	<1.00							
Barium	11D0253			mg/kg wet	N/A	0.500	<0.500							
Cadmium	11D0253			mg/kg wet	N/A	1.00	<1.00							
Chromium	11D0253			mg/kg wet	N/A	1.00	<1.00							
Lead	11D0253			mg/kg wet	N/A	5.00	<5.00							
Selenium	11D0253			mg/kg wet	N/A	7.50	<7.50							
Silver	11D0253			mg/kg wet	N/A	1.00	<1.00							
Arsenic	11D0274			mg/kg wet	N/A	1.00	<1.00							
Barium	11D0349			mg/kg wet	N/A	0.500	<0.500							
Cadmium	11D0349			mg/kg wet	N/A	1.00	<1.00							
Chromium	11D0349			mg/kg wet	N/A	1.00	<1.00							
Lead	11D0349			mg/kg wet	N/A	5.00	<5.00							
Selenium	11D0349			mg/kg wet	N/A	7.50	<7.50							
Silver	11D0349			mg/kg wet	N/A	1.00	<1.00							
Volatile Organic Compounds														
Acetone	11D0111			ug/L	N/A	10.0	<10.0							
Acrylonitrile	11D0111			ug/L	N/A	10.0	<10.0							
Benzene	11D0111			ug/L	N/A	0.500	<0.500							
Bromobenzene	11D0111			ug/L	N/A	1.00	<1.00							
Bromochloromethane	11D0111			ug/L	N/A	5.00	<5.00							
Bromodichloromethane	11D0111			ug/L	N/A	1.00	<1.00							
Bromoform	11D0111			ug/L	N/A	5.00	<5.00							
Bromomethane	11D0111			ug/L	N/A	4.00	<4.00							CIN
2-Butanone (MEK)	11D0111			ug/L	N/A	10.0	<10.0							
n-Butylbenzene	11D0111			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	11D0111			ug/L	N/A	1.00	<1.00							
tert-Butylbenzene	11D0111			ug/L	N/A	1.00	<1.00							
Carbon disulfide	11D0111			ug/L	N/A	1.00	<1.00							
Carbon Tetrachloride	11D0111			ug/L	N/A	2.00	<2.00							
Chlorobenzene	11D0111			ug/L	N/A	1.00	<1.00							
Chlorodibromomethane	11D0111			ug/L	N/A	5.00	<5.00							
Chloroethane	11D0111			ug/L	N/A	4.00	<4.00							
Chloroform	11D0111			ug/L	N/A	1.00	<1.00							
Chloromethane	11D0111			ug/L	N/A	3.00	<3.00							CIN

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Reported: 05/05/11 08:34

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
2-Chlorotoluene	11D0111			ug/L	N/A	1.00	<1.00							
4-Chlorotoluene	11D0111			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	11D0111			ug/L	N/A	10.0	<10.0							
1,2-Dibromoethane (EDB)	11D0111			ug/L	N/A	10.0	<10.0							
Dibromomethane	11D0111			ug/L	N/A	1.00	<1.00							
1,2-Dichlorobenzene	11D0111			ug/L	N/A	1.00	<1.00							
1,3-Dichlorobenzene	11D0111			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	11D0111			ug/L	N/A	1.00	<1.00							
Dichlorodifluoromethane	11D0111			ug/L	N/A	3.00	<3.00							
1,1-Dichloroethane	11D0111			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	11D0111			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	11D0111			ug/L	N/A	2.00	<2.00							
cis-1,2-Dichloroethene	11D0111			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	11D0111			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	11D0111			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	11D0111			ug/L	N/A	1.00	<1.00							
2,2-Dichloropropane	11D0111			ug/L	N/A	4.00	<4.00							CIN
1,1-Dichloropropene	11D0111			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	11D0111			ug/L	N/A	5.00	<5.00							
trans-1,3-Dichloropropene	11D0111			ug/L	N/A	5.00	<5.00							
Ethylbenzene	11D0111			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	11D0111			ug/L	N/A	5.00	<5.00							
Hexane	11D0111			ug/L	N/A	1.00	<1.00							
Isopropylbenzene	11D0111			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	11D0111			ug/L	N/A	1.00	<1.00							
Methylene Chloride	11D0111			ug/L	N/A	5.00	<5.00							
Methyl tert-Butyl Ether	11D0111			ug/L	N/A	1.00	<1.00							C9
Naphthalene	11D0111			ug/L	N/A	5.00	<5.00							
n-Propylbenzene	11D0111			ug/L	N/A	1.00	<1.00							
Styrene	11D0111			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	11D0111			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	11D0111			ug/L	N/A	1.00	<1.00							CIN
Tetrachloroethene	11D0111			ug/L	N/A	1.00	<1.00							
Toluene	11D0111			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	11D0111			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	11D0111			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	11D0111			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	11D0111			ug/L	N/A	1.00	<1.00							
Trichloroethene	11D0111			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	11D0111			ug/L	N/A	4.00	<4.00							
1,2,3-Trichloropropane	11D0111			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	11D0111			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	11D0111			ug/L	N/A	1.00	<1.00							
Vinyl chloride	11D0111			ug/L	N/A	1.00	<1.00							
Xylenes, total	11D0111			ug/L	N/A	3.00	<3.00							

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LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Surrogate: Dibromofluoromethane	*11D0111*			ug/L					*96*		*75-120*			
Surrogate: Toluene-d8	*11D0111*			ug/L					*100*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0111*			ug/L					*104*		*75-110*			
Acetone	11D0407			ug/kg wet	N/A	102	<102							L1,S2
Acrylonitrile	11D0407			ug/kg wet	N/A	102	<102							
Benzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Bromobenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Bromochloromethane	11D0407			ug/kg wet	N/A	10.2	<10.2							
Bromodichloromethane	11D0407			ug/kg wet	N/A	10.2	<10.2							
Bromoform	11D0407			ug/kg wet	N/A	20.4	<20.4							
Bromomethane	11D0407			ug/kg wet	N/A	40.9	<40.9							
2-Butanone (MEK)	11D0407			ug/kg wet	N/A	102	<102							
n-Butylbenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
sec-Butylbenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
tert-Butylbenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Carbon disulfide	11D0407			ug/kg wet	N/A	10.2	<10.2							
Carbon Tetrachloride	11D0407			ug/kg wet	N/A	10.2	<10.2							
Chlorobenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Chlorodibromomethane	11D0407			ug/kg wet	N/A	10.2	<10.2							
Chloroethane	11D0407			ug/kg wet	N/A	40.9	<40.9							
Chloroform	11D0407			ug/kg wet	N/A	10.2	<10.2							
Chloromethane	11D0407			ug/kg wet	N/A	40.9	<40.9							
2-Chlorotoluene	11D0407			ug/kg wet	N/A	10.2	<10.2							
4-Chlorotoluene	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,2-Dibromo-3-chloropropane	11D0407			ug/kg wet	N/A	102	<102							
1,2-Dibromoethane (EDB)	11D0407			ug/kg wet	N/A	102	<102							
Dibromomethane	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,2-Dichlorobenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,3-Dichlorobenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,4-Dichlorobenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Dichlorodifluoromethane	11D0407			ug/kg wet	N/A	30.7	<30.7							
1,1-Dichloroethane	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,2-Dichloroethane	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,1-Dichloroethene	11D0407			ug/kg wet	N/A	10.2	<10.2							
cis-1,2-Dichloroethene	11D0407			ug/kg wet	N/A	10.2	<10.2							
trans-1,2-Dichloroethene	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,2-Dichloropropane	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,3-Dichloropropane	11D0407			ug/kg wet	N/A	10.2	<10.2							
2,2-Dichloropropane	11D0407			ug/kg wet	N/A	40.9	<40.9							
1,1-Dichloropropene	11D0407			ug/kg wet	N/A	10.2	<10.2							
cis-1,3-Dichloropropene	11D0407			ug/kg wet	N/A	10.2	<10.2							
trans-1,3-Dichloropropene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Ethylbenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Hexachlorobutadiene	11D0407			ug/kg wet	N/A	51.1	<51.1							

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Hexane	11D0407			ug/kg wet	N/A	51.1	<51.1							
Isopropylbenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
p-Isopropyltoluene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Methylene Chloride	11D0407			ug/kg wet	N/A	102	<102							
Methyl tert-Butyl Ether	11D0407			ug/kg wet	N/A	10.2	<10.2							
Naphthalene	11D0407			ug/kg wet	N/A	51.1	<51.1							
n-Propylbenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Styrene	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,1,1,2-Tetrachloroethane	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,1,2,2-Tetrachloroethane	11D0407			ug/kg wet	N/A	10.2	<10.2							
Tetrachloroethene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Toluene	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,2,3-Trichlorobenzene	11D0407			ug/kg wet	N/A	51.1	<51.1							
1,2,4-Trichlorobenzene	11D0407			ug/kg wet	N/A	51.1	<51.1							
1,1,1-Trichloroethane	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,1,2-Trichloroethane	11D0407			ug/kg wet	N/A	10.2	<10.2							
Trichloroethene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Trichlorofluoromethane	11D0407			ug/kg wet	N/A	40.9	<40.9							
1,2,3-Trichloropropane	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,2,4-Trimethylbenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
1,3,5-Trimethylbenzene	11D0407			ug/kg wet	N/A	10.2	<10.2							
Vinyl chloride	11D0407			ug/kg wet	N/A	30.7	<30.7							
Xylenes, total	11D0407			ug/kg wet	N/A	30.7	<30.7							
Surrogate: Dibromofluoromethane	*11D0407*			ug/L					*100*		*75-125*			
Surrogate: Toluene-d8	*11D0407*			ug/L					*98*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0407*			ug/L					*96*		*80-120*			
Acetone	11D0490			ug/kg wet	N/A	114	<114							
Acrylonitrile	11D0490			ug/kg wet	N/A	114	<114							
Benzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Bromobenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Bromochloromethane	11D0490			ug/kg wet	N/A	11.4	<11.4							
Bromodichloromethane	11D0490			ug/kg wet	N/A	11.4	<11.4							
Bromoform	11D0490			ug/kg wet	N/A	22.8	<22.8							
Bromomethane	11D0490			ug/kg wet	N/A	45.7	<45.7							
2-Butanone (MEK)	11D0490			ug/kg wet	N/A	114	<114							
n-Butylbenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
sec-Butylbenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
tert-Butylbenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Carbon disulfide	11D0490			ug/kg wet	N/A	11.4	<11.4							
Carbon Tetrachloride	11D0490			ug/kg wet	N/A	11.4	<11.4							
Chlorobenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Chlorodibromomethane	11D0490			ug/kg wet	N/A	11.4	<11.4							
Chloroethane	11D0490			ug/kg wet	N/A	45.7	<45.7							
Chloroform	11D0490			ug/kg wet	N/A	11.4	<11.4							

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
Reported: 05/05/11 08:34

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Chloromethane	11D0490			ug/kg wet	N/A	45.7	<45.7							CIN
2-Chlorotoluene	11D0490			ug/kg wet	N/A	11.4	<11.4							
4-Chlorotoluene	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,2-Dibromo-3-chloropropane	11D0490			ug/kg wet	N/A	114	<114							
1,2-Dibromoethane (EDB)	11D0490			ug/kg wet	N/A	114	<114							
Dibromomethane	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,2-Dichlorobenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,3-Dichlorobenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,4-Dichlorobenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Dichlorodifluoromethane	11D0490			ug/kg wet	N/A	34.3	<34.3							
1,1-Dichloroethane	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,2-Dichloroethane	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,1-Dichloroethene	11D0490			ug/kg wet	N/A	11.4	<11.4							
cis-1,2-Dichloroethene	11D0490			ug/kg wet	N/A	11.4	<11.4							
trans-1,2-Dichloroethene	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,2-Dichloropropane	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,3-Dichloropropane	11D0490			ug/kg wet	N/A	11.4	<11.4							
2,2-Dichloropropane	11D0490			ug/kg wet	N/A	45.7	<45.7							
1,1-Dichloropropene	11D0490			ug/kg wet	N/A	11.4	<11.4							
cis-1,3-Dichloropropene	11D0490			ug/kg wet	N/A	11.4	<11.4							
trans-1,3-Dichloropropene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Ethylbenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Hexachlorobutadiene	11D0490			ug/kg wet	N/A	57.1	<57.1							
Hexane	11D0490			ug/kg wet	N/A	57.1	<57.1							ICV
Isopropylbenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
p-Isopropyltoluene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Methylene Chloride	11D0490			ug/kg wet	N/A	114	<114							
Methyl tert-Butyl Ether	11D0490			ug/kg wet	N/A	11.4	<11.4							
Naphthalene	11D0490			ug/kg wet	N/A	57.1	<57.1							
n-Propylbenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Styrene	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,1,1,2-Tetrachloroethane	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,1,2,2-Tetrachloroethane	11D0490			ug/kg wet	N/A	11.4	<11.4							
Tetrachloroethene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Toluene	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,2,3-Trichlorobenzene	11D0490			ug/kg wet	N/A	57.1	<57.1							
1,2,4-Trichlorobenzene	11D0490			ug/kg wet	N/A	57.1	<57.1							
1,1,1-Trichloroethane	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,1,2-Trichloroethane	11D0490			ug/kg wet	N/A	11.4	<11.4							
Trichloroethene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Trichlorofluoromethane	11D0490			ug/kg wet	N/A	45.7	<45.7							
1,2,3-Trichloropropane	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,2,4-Trimethylbenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
1,3,5-Trimethylbenzene	11D0490			ug/kg wet	N/A	11.4	<11.4							
Vinyl chloride	11D0490			ug/kg wet	N/A	34.3	<34.3							

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
Reported: 05/05/11 08:34

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Xylenes, total	11D0490			ug/kg wet	N/A	34.3	<34.3							
Surrogate: Dibromofluoromethane	*11D0490*			ug/L					*86*		*75-125*			
Surrogate: Toluene-d8	*11D0490*			ug/L					*98*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0490*			ug/L					*100*		*80-120*			
Acetone	11D0491			ug/kg wet	N/A	105	<105							L1,S2
Acrylonitrile	11D0491			ug/kg wet	N/A	105	<105							
Benzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Bromobenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Bromochloromethane	11D0491			ug/kg wet	N/A	10.5	<10.5							
Bromodichloromethane	11D0491			ug/kg wet	N/A	10.5	<10.5							
Bromoform	11D0491			ug/kg wet	N/A	21.0	<21.0							
Bromomethane	11D0491			ug/kg wet	N/A	41.9	<41.9							
2-Butanone (MEK)	11D0491			ug/kg wet	N/A	105	<105							
n-Butylbenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
sec-Butylbenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
tert-Butylbenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Carbon disulfide	11D0491			ug/kg wet	N/A	10.5	<10.5							
Carbon Tetrachloride	11D0491			ug/kg wet	N/A	10.5	<10.5							
Chlorobenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Chlorodibromomethane	11D0491			ug/kg wet	N/A	10.5	<10.5							
Chloroethane	11D0491			ug/kg wet	N/A	41.9	<41.9							
Chloroform	11D0491			ug/kg wet	N/A	10.5	<10.5							
Chloromethane	11D0491			ug/kg wet	N/A	41.9	<41.9							
2-Chlorotoluene	11D0491			ug/kg wet	N/A	10.5	<10.5							
4-Chlorotoluene	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,2-Dibromo-3-chloropropane	11D0491			ug/kg wet	N/A	105	<105							
1,2-Dibromoethane (EDB)	11D0491			ug/kg wet	N/A	105	<105							
Dibromomethane	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,2-Dichlorobenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,3-Dichlorobenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,4-Dichlorobenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Dichlorodifluoromethane	11D0491			ug/kg wet	N/A	31.4	<31.4							
1,1-Dichloroethane	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,2-Dichloroethane	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,1-Dichloroethene	11D0491			ug/kg wet	N/A	10.5	<10.5							
cis-1,2-Dichloroethene	11D0491			ug/kg wet	N/A	10.5	<10.5							
trans-1,2-Dichloroethene	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,2-Dichloropropane	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,3-Dichloropropane	11D0491			ug/kg wet	N/A	10.5	<10.5							
2,2-Dichloropropane	11D0491			ug/kg wet	N/A	41.9	<41.9							
1,1-Dichloropropene	11D0491			ug/kg wet	N/A	10.5	<10.5							
cis-1,3-Dichloropropene	11D0491			ug/kg wet	N/A	10.5	<10.5							
trans-1,3-Dichloropropene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Ethylbenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
Reported: 05/05/11 08:34

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Hexachlorobutadiene	11D0491			ug/kg wet	N/A	52.4	<52.4							
Hexane	11D0491			ug/kg wet	N/A	52.4	<52.4							
Isopropylbenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
p-Isopropyltoluene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Methylene Chloride	11D0491			ug/kg wet	N/A	105	<105							
Methyl tert-Butyl Ether	11D0491			ug/kg wet	N/A	10.5	<10.5							
Naphthalene	11D0491			ug/kg wet	N/A	52.4	<52.4							
n-Propylbenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Styrene	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,1,1,2-Tetrachloroethane	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,1,2,2-Tetrachloroethane	11D0491			ug/kg wet	N/A	10.5	<10.5							
Tetrachloroethene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Toluene	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,2,3-Trichlorobenzene	11D0491			ug/kg wet	N/A	52.4	<52.4							
1,2,4-Trichlorobenzene	11D0491			ug/kg wet	N/A	52.4	<52.4							
1,1,1-Trichloroethane	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,1,2-Trichloroethane	11D0491			ug/kg wet	N/A	10.5	<10.5							
Trichloroethene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Trichlorofluoromethane	11D0491			ug/kg wet	N/A	41.9	<41.9							
1,2,3-Trichloropropane	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,2,4-Trimethylbenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
1,3,5-Trimethylbenzene	11D0491			ug/kg wet	N/A	10.5	<10.5							
Vinyl chloride	11D0491			ug/kg wet	N/A	31.4	<31.4							
Xylenes, total	11D0491			ug/kg wet	N/A	31.4	<31.4							
Surrogate: Dibromofluoromethane	*11D0491*			ug/L					*98*		*75-125*			
Surrogate: Toluene-d8	*11D0491*			ug/L					*106*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0491*			ug/L					*110*		*80-120*			
Acetone	11D0492			ug/kg wet	N/A	115	<115							L1
Acrylonitrile	11D0492			ug/kg wet	N/A	115	<115							
Benzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Bromobenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Bromochloromethane	11D0492			ug/kg wet	N/A	11.5	<11.5							
Bromodichloromethane	11D0492			ug/kg wet	N/A	11.5	<11.5							
Bromoform	11D0492			ug/kg wet	N/A	23.0	<23.0							
Bromomethane	11D0492			ug/kg wet	N/A	46.0	<46.0							L
2-Butanone (MEK)	11D0492			ug/kg wet	N/A	115	<115							
n-Butylbenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
sec-Butylbenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
tert-Butylbenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Carbon disulfide	11D0492			ug/kg wet	N/A	11.5	<11.5							
Carbon Tetrachloride	11D0492			ug/kg wet	N/A	11.5	<11.5							
Chlorobenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Chlorodibromomethane	11D0492			ug/kg wet	N/A	11.5	<11.5							
Chloroethane	11D0492			ug/kg wet	N/A	46.0	<46.0							

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LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Chloroform	11D0492			ug/kg wet	N/A	11.5	<11.5							
Chloromethane	11D0492			ug/kg wet	N/A	46.0	<46.0							
2-Chlorotoluene	11D0492			ug/kg wet	N/A	11.5	<11.5							
4-Chlorotoluene	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,2-Dibromo-3-chloropropane	11D0492			ug/kg wet	N/A	115	<115							
1,2-Dibromoethane (EDB)	11D0492			ug/kg wet	N/A	115	<115							
Dibromomethane	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,2-Dichlorobenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,3-Dichlorobenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,4-Dichlorobenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Dichlorodifluoromethane	11D0492			ug/kg wet	N/A	34.5	<34.5							
1,1-Dichloroethane	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,2-Dichloroethane	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,1-Dichloroethene	11D0492			ug/kg wet	N/A	11.5	<11.5							
cis-1,2-Dichloroethene	11D0492			ug/kg wet	N/A	11.5	<11.5							
trans-1,2-Dichloroethene	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,2-Dichloropropane	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,3-Dichloropropane	11D0492			ug/kg wet	N/A	11.5	<11.5							
2,2-Dichloropropane	11D0492			ug/kg wet	N/A	46.0	<46.0							
1,1-Dichloropropene	11D0492			ug/kg wet	N/A	11.5	<11.5							
cis-1,3-Dichloropropene	11D0492			ug/kg wet	N/A	11.5	<11.5							
trans-1,3-Dichloropropene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Ethylbenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Hexachlorobutadiene	11D0492			ug/kg wet	N/A	57.5	<57.5							
Hexane	11D0492			ug/kg wet	N/A	57.5	<57.5							ICV
Isopropylbenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
p-Isopropyltoluene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Methylene Chloride	11D0492			ug/kg wet	N/A	115	<115							
Methyl tert-Butyl Ether	11D0492			ug/kg wet	N/A	11.5	<11.5							
Naphthalene	11D0492			ug/kg wet	N/A	57.5	<57.5							
n-Propylbenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Styrene	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,1,1,2-Tetrachloroethane	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,1,2,2-Tetrachloroethane	11D0492			ug/kg wet	N/A	11.5	<11.5							
Tetrachloroethene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Toluene	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,2,3-Trichlorobenzene	11D0492			ug/kg wet	N/A	57.5	<57.5							
1,2,4-Trichlorobenzene	11D0492			ug/kg wet	N/A	57.5	<57.5							
1,1,1-Trichloroethane	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,1,2-Trichloroethane	11D0492			ug/kg wet	N/A	11.5	<11.5							
Trichloroethene	11D0492			ug/kg wet	N/A	11.5	<11.5							
Trichlorofluoromethane	11D0492			ug/kg wet	N/A	46.0	<46.0							
1,2,3-Trichloropropane	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,2,4-Trimethylbenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							
1,3,5-Trimethylbenzene	11D0492			ug/kg wet	N/A	11.5	<11.5							

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Vinyl chloride	11D0492			ug/kg wet	N/A	34.5	<34.5							
Xylenes, total	11D0492			ug/kg wet	N/A	34.5	<34.5							
Surrogate: Dibromofluoromethane	*11D0492*			ug/L					*105*		*75-125*			
Surrogate: Toluene-d8	*11D0492*			ug/L					*101*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0492*			ug/L					*97*		*80-120*			
Acetone	11D0555			ug/kg wet	N/A	2370	<2370							
Acrylonitrile	11D0555			ug/kg wet	N/A	2370	<2370							
Benzene	11D0555			ug/kg wet	N/A	237	<237							
Bromobenzene	11D0555			ug/kg wet	N/A	237	<237							
Bromochloromethane	11D0555			ug/kg wet	N/A	237	<237							
Bromodichloromethane	11D0555			ug/kg wet	N/A	237	<237							
Bromoform	11D0555			ug/kg wet	N/A	475	<475							
Bromomethane	11D0555			ug/kg wet	N/A	950	<950							CIN
2-Butanone (MEK)	11D0555			ug/kg wet	N/A	2370	<2370							
n-Butylbenzene	11D0555			ug/kg wet	N/A	237	<237							
sec-Butylbenzene	11D0555			ug/kg wet	N/A	237	<237							
tert-Butylbenzene	11D0555			ug/kg wet	N/A	237	<237							
Carbon disulfide	11D0555			ug/kg wet	N/A	237	<237							
Carbon Tetrachloride	11D0555			ug/kg wet	N/A	237	<237							
Chlorobenzene	11D0555			ug/kg wet	N/A	237	<237							
Chlorodibromomethane	11D0555			ug/kg wet	N/A	237	<237							
Chloroethane	11D0555			ug/kg wet	N/A	950	<950							
Chloroform	11D0555			ug/kg wet	N/A	237	<237							
Chloromethane	11D0555			ug/kg wet	N/A	950	<950							CIN
2-Chlorotoluene	11D0555			ug/kg wet	N/A	237	<237							
4-Chlorotoluene	11D0555			ug/kg wet	N/A	237	<237							
1,2-Dibromo-3-chloropropane	11D0555			ug/kg wet	N/A	2370	<2370							
1,2-Dibromoethane (EDB)	11D0555			ug/kg wet	N/A	2370	<2370							
Dibromomethane	11D0555			ug/kg wet	N/A	237	<237							
1,2-Dichlorobenzene	11D0555			ug/kg wet	N/A	237	<237							
1,3-Dichlorobenzene	11D0555			ug/kg wet	N/A	237	<237							
1,4-Dichlorobenzene	11D0555			ug/kg wet	N/A	237	<237							
Dichlorodifluoromethane	11D0555			ug/kg wet	N/A	712	<712							
1,1-Dichloroethane	11D0555			ug/kg wet	N/A	237	<237							
1,2-Dichloroethane	11D0555			ug/kg wet	N/A	237	<237							
1,1-Dichloroethene	11D0555			ug/kg wet	N/A	237	<237							
cis-1,2-Dichloroethene	11D0555			ug/kg wet	N/A	237	<237							
trans-1,2-Dichloroethene	11D0555			ug/kg wet	N/A	237	<237							
1,2-Dichloropropane	11D0555			ug/kg wet	N/A	237	<237							
1,3-Dichloropropane	11D0555			ug/kg wet	N/A	237	<237							
2,2-Dichloropropane	11D0555			ug/kg wet	N/A	950	<950							CIN
1,1-Dichloropropene	11D0555			ug/kg wet	N/A	237	<237							
cis-1,3-Dichloropropene	11D0555			ug/kg wet	N/A	237	<237							
trans-1,3-Dichloropropene	11D0555			ug/kg wet	N/A	237	<237							

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Received: 04/01/11
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LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Ethylbenzene	11D0555			ug/kg wet	N/A	237	<237							
Hexachlorobutadiene	11D0555			ug/kg wet	N/A	1190	<1190							
Hexane	11D0555			ug/kg wet	N/A	1190	<1190							
Isopropylbenzene	11D0555			ug/kg wet	N/A	237	<237							
p-Isopropyltoluene	11D0555			ug/kg wet	N/A	237	<237							
Methylene Chloride	11D0555			ug/kg wet	N/A	2370	<2370							
Methyl tert-Butyl Ether	11D0555			ug/kg wet	N/A	237	<237							
Naphthalene	11D0555			ug/kg wet	N/A	1190	<1190							
n-Propylbenzene	11D0555			ug/kg wet	N/A	237	<237							
Styrene	11D0555			ug/kg wet	N/A	237	<237							
1,1,1,2-Tetrachloroethane	11D0555			ug/kg wet	N/A	237	<237							
1,1,2,2-Tetrachloroethane	11D0555			ug/kg wet	N/A	237	<237							CIN
Tetrachloroethene	11D0555			ug/kg wet	N/A	237	<237							C
Toluene	11D0555			ug/kg wet	N/A	237	<237							
1,2,3-Trichlorobenzene	11D0555			ug/kg wet	N/A	1190	<1190							
1,2,4-Trichlorobenzene	11D0555			ug/kg wet	N/A	1190	<1190							
1,1,1-Trichloroethane	11D0555			ug/kg wet	N/A	237	<237							
1,1,2-Trichloroethane	11D0555			ug/kg wet	N/A	237	<237							
Trichloroethene	11D0555			ug/kg wet	N/A	237	<237							
Trichlorofluoromethane	11D0555			ug/kg wet	N/A	950	<950							
1,2,3-Trichloropropane	11D0555			ug/kg wet	N/A	237	<237							
1,2,4-Trimethylbenzene	11D0555			ug/kg wet	N/A	237	<237							
1,3,5-Trimethylbenzene	11D0555			ug/kg wet	N/A	237	<237							
Vinyl chloride	11D0555			ug/kg wet	N/A	712	<712							
Xylenes, total	11D0555			ug/kg wet	N/A	712	<712							
Surrogate: Dibromofluoromethane	*11D0555*			ug/L					*100*		*75-125*			
Surrogate: Toluene-d8	*11D0555*			ug/L					*101*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0555*			ug/L					*99*		*80-120*			
Acetone	11D0560			ug/kg wet	N/A	2370	<2370							L1
Acrylonitrile	11D0560			ug/kg wet	N/A	2370	<2370							L1
Benzene	11D0560			ug/kg wet	N/A	237	<237							L1
Bromobenzene	11D0560			ug/kg wet	N/A	237	<237							C,L1
Bromochloromethane	11D0560			ug/kg wet	N/A	237	<237							L1
Bromodichloromethane	11D0560			ug/kg wet	N/A	237	<237							
Bromoform	11D0560			ug/kg wet	N/A	475	<475							
Bromomethane	11D0560			ug/kg wet	N/A	950	<950							
2-Butanone (MEK)	11D0560			ug/kg wet	N/A	2370	<2370							L1
n-Butylbenzene	11D0560			ug/kg wet	N/A	237	<237							L1
sec-Butylbenzene	11D0560			ug/kg wet	N/A	237	<237							L1
tert-Butylbenzene	11D0560			ug/kg wet	N/A	237	<237							L1
Carbon disulfide	11D0560			ug/kg wet	N/A	237	<237							
Carbon Tetrachloride	11D0560			ug/kg wet	N/A	237	<237							
Chlorobenzene	11D0560			ug/kg wet	N/A	237	<237							C,L1
Chlorodibromomethane	11D0560			ug/kg wet	N/A	237	<237							

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
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LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Chloroethane	11D0560			ug/kg wet	N/A	950	<950							
Chloroform	11D0560			ug/kg wet	N/A	237	<237							L1
Chloromethane	11D0560			ug/kg wet	N/A	950	<950							
2-Chlorotoluene	11D0560			ug/kg wet	N/A	237	<237							L1
4-Chlorotoluene	11D0560			ug/kg wet	N/A	237	<237							CIN,L1
1,2-Dibromo-3-chloropropane	11D0560			ug/kg wet	N/A	2370	<2370							
1,2-Dibromoethane (EDB)	11D0560			ug/kg wet	N/A	2370	<2370							
Dibromomethane	11D0560			ug/kg wet	N/A	237	<237							
1,2-Dichlorobenzene	11D0560			ug/kg wet	N/A	237	<237							CIN
1,3-Dichlorobenzene	11D0560			ug/kg wet	N/A	237	<237							
1,4-Dichlorobenzene	11D0560			ug/kg wet	N/A	237	<237							
Dichlorodifluoromethane	11D0560			ug/kg wet	N/A	712	<712							
1,1-Dichloroethane	11D0560			ug/kg wet	N/A	237	<237							
1,2-Dichloroethane	11D0560			ug/kg wet	N/A	237	<237							
1,1-Dichloroethene	11D0560			ug/kg wet	N/A	237	<237							
cis-1,2-Dichloroethene	11D0560			ug/kg wet	N/A	237	<237							
trans-1,2-Dichloroethene	11D0560			ug/kg wet	N/A	237	<237							
1,2-Dichloropropane	11D0560			ug/kg wet	N/A	237	<237							
1,3-Dichloropropane	11D0560			ug/kg wet	N/A	237	<237							
2,2-Dichloropropane	11D0560			ug/kg wet	N/A	950	<950							
1,1-Dichloropropene	11D0560			ug/kg wet	N/A	237	<237							
cis-1,3-Dichloropropene	11D0560			ug/kg wet	N/A	237	<237							
trans-1,3-Dichloropropene	11D0560			ug/kg wet	N/A	237	<237							
Ethylbenzene	11D0560			ug/kg wet	N/A	237	<237							
Hexachlorobutadiene	11D0560			ug/kg wet	N/A	1190	<1190							
Hexane	11D0560			ug/kg wet	N/A	1190	<1190							CIN
Isopropylbenzene	11D0560			ug/kg wet	N/A	237	<237							
p-Isopropyltoluene	11D0560			ug/kg wet	N/A	237	<237							CIN
Methylene Chloride	11D0560			ug/kg wet	N/A	2370	<2370							
Methyl tert-Butyl Ether	11D0560			ug/kg wet	N/A	237	<237							
Naphthalene	11D0560			ug/kg wet	N/A	1190	<1190							CIN
n-Propylbenzene	11D0560			ug/kg wet	N/A	237	<237							
Styrene	11D0560			ug/kg wet	N/A	237	<237							CIN
1,1,1,2-Tetrachloroethane	11D0560			ug/kg wet	N/A	237	<237							CIN
1,1,2,2-Tetrachloroethane	11D0560			ug/kg wet	N/A	237	<237							
Tetrachloroethene	11D0560			ug/kg wet	N/A	237	<237							C
Toluene	11D0560			ug/kg wet	N/A	237	<237							
1,2,3-Trichlorobenzene	11D0560			ug/kg wet	N/A	1190	<1190							
1,2,4-Trichlorobenzene	11D0560			ug/kg wet	N/A	1190	<1190							
1,1,1-Trichloroethane	11D0560			ug/kg wet	N/A	237	<237							
1,1,2-Trichloroethane	11D0560			ug/kg wet	N/A	237	<237							
Trichloroethene	11D0560			ug/kg wet	N/A	237	<237							
Trichlorofluoromethane	11D0560			ug/kg wet	N/A	950	<950							
1,2,3-Trichloropropane	11D0560			ug/kg wet	N/A	237	<237							C,CIN
1,2,4-Trimethylbenzene	11D0560			ug/kg wet	N/A	237	<237							

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LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
1,3,5-Trimethylbenzene	11D0560			ug/kg wet	N/A	237	<237							C
Vinyl chloride	11D0560			ug/kg wet	N/A	712	<712							CIN
Xylenes, total	11D0560			ug/kg wet	N/A	712	<712							C
Surrogate: Dibromofluoromethane	*11D0560*			ug/L					*84*		*75-125*			
Surrogate: Toluene-d8	*11D0560*			ug/L					*99*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0560*			ug/L					*101*		*80-120*			
UST Volatile Compounds by GC														
TPH as Gasoline	11D0258			mg/kg	N/A	10.0	<10.0							
TPH as Gasoline	11D0350			mg/kg	N/A	10.0	<10.0							
TPH as Gasoline	11D0549			mg/kg	N/A	10.0	<10.0							
TPH as Gasoline	11D0582			mg/kg	N/A	10.0	13.3							
UST ANALYSIS PARAMETERS														
Diesel	11D0059			mg/kg	N/A	10.0	<10.0							
Gasoline	11D0059			mg/kg	N/A	10.0	11.4							
Motor Oil	11D0059			mg/kg	N/A	10.0	<10.0							
Surrogate: Octacosane	*11D0059*			mg/kg					*96*		*50-150*			
Diesel	11D0082			mg/kg	N/A	10.0	<10.0							
Gasoline	11D0082			mg/kg	N/A	10.0	<10.0							
Motor Oil	11D0082			mg/kg	N/A	10.0	<10.0							
Surrogate: Octacosane	*11D0082*			mg/kg					*97*		*50-150*			
Diesel	11D0140			mg/kg	N/A	10.0	<10.0							
Gasoline	11D0140			mg/kg	N/A	10.0	<10.0							
Motor Oil	11D0140			mg/kg	N/A	10.0	<10.0							
Surrogate: Octacosane	*11D0140*			mg/kg					*111*		*50-150*			
Diesel	11D0209			mg/kg	N/A	10.0	<10.0							
Gasoline	11D0209			mg/kg	N/A	10.0	<10.0							
Motor Oil	11D0209			mg/kg	N/A	10.0	<10.0							
Surrogate: Octacosane	*11D0209*			mg/kg					*106*		*50-150*			
Polychlorinated Biphenyls by EPA Method 8082														
PCB-1016	11D0081			mg/kg wet	N/A	0.0500	<0.0500							
PCB-1221	11D0081			mg/kg wet	N/A	0.0500	<0.0500							
PCB-1232	11D0081			mg/kg wet	N/A	0.0500	<0.0500							
PCB-1242	11D0081			mg/kg wet	N/A	0.0500	<0.0500							
PCB-1248	11D0081			mg/kg wet	N/A	0.0500	<0.0500							
PCB-1254	11D0081			mg/kg wet	N/A	0.0500	<0.0500							
PCB-1260	11D0081			mg/kg wet	N/A	0.0500	<0.0500							
PCB-1268	11D0081			mg/kg wet	N/A	0.0500	<0.0500							

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LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Polychlorinated Biphenyls by EPA Method 8082														
Surrogate: Decachlorobiphenyl	*11D0081*			mg/kg wet					*84*		*55-120*			
Surrogate: Tetrachloro-meta-xylene	*11D0081*			mg/kg wet					*60*		*45-105*			
HEM														
HEM (Oil & Grease)	109597			mg/Kg dry	N/A	500	<500				-			
HEM (Oil & Grease)	109897			mg/Kg dry	N/A	500	290				-			J
HEM (Oil & Grease)	110190			mg/Kg dry	N/A	500	<500				-			

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LABORATORY DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
General Chemistry Parameters													
QC Source Sample: CUD0130-06													
% Solids	11D0154	74.7		%	N/A	0.100	74.6				0	10	
QC Source Sample: CUD0069-08													
% Solids	11D0154	85.1		%	N/A	0.100	83.3				2	10	H
QC Source Sample: CUD0086-06													
% Solids	11D0155	81.2		%	N/A	0.100	79.0				3	10	
QC Source Sample: CUD0086-16													
% Solids	11D0155	86.0		%	N/A	0.100	86.6				1	10	
QC Source Sample: CUD0090-10													
% Solids	11D0156	76.7		%	N/A	0.100	75.6				1	10	
QC Source Sample: CUD0090-12													
% Solids	11D0156	57.8		%	N/A	0.100	80.4				33	10	R
QC Source Sample: CUD0093-10													
% Solids	11D0156	84.3		%	N/A	0.100	78.3				7	10	
QC Source Sample: CUD0086-24													
% Solids	11D0158	86.4		%	N/A	0.100	86.6				0	10	
QC Source Sample: CUD0086-34													
% Solids	11D0158	81.4		%	N/A	0.100	82.0				1	10	
QC Source Sample: CUD0086-44													
% Solids	11D0159	73.8		%	N/A	0.100	73.5				1	10	
QC Source Sample: CUD0185-04													
% Solids	11D0159	89.4		%	N/A	0.100	87.9				2	10	
Total Metals by SW 846 Series Methods													
QC Source Sample: CUD0086-02													
Arsenic	11D0137	6.23		mg/kg dry	N/A	1.17	3.19				65	20	R
QC Source Sample: CUD0086-22													
Arsenic	11D0218	4.79		mg/kg dry	N/A	1.15	4.68				2	20	
QC Source Sample: CUD0086-12													
Barium	11D0252	108		mg/kg dry	N/A	0.609	118				8	20	
Cadmium	11D0252	0.337		mg/kg dry	N/A	1.22	0.344				2	20	
Chromium	11D0252	17.8		mg/kg dry	N/A	1.22	21.3				18	20	
Lead	11D0252	8.16		mg/kg dry	N/A	6.09	7.69				6	20	
Selenium	11D0252	<9.13		mg/kg dry	N/A	9.13	<9.13					20	
Silver	11D0252	<1.22		mg/kg dry	N/A	1.22	<1.22					20	
QC Source Sample: CUD0086-31													
Barium	11D0253	135		mg/kg dry	N/A	1.70	117				14	20	
Cadmium	11D0253	<3.39		mg/kg dry	N/A	3.39	0.487					20	IE
Chromium	11D0253	25.6		mg/kg dry	N/A	3.39	25.8				1	20	
Lead	11D0253	<17.0		mg/kg dry	N/A	17.0	<17.0					20	IE
Selenium	11D0253	<25.4		mg/kg dry	N/A	25.4	<25.4					20	IE
Silver	11D0253	<3.39		mg/kg dry	N/A	3.39	<3.39					20	IE
QC Source Sample: CUD0086-42													
Arsenic	11D0274	2.72		mg/kg dry	N/A	1.23	2.99				9	20	
QC Source Sample: CUD0086-50													
Barium	11D0349	47.7		mg/kg dry	N/A	0.573	51.0				7	20	
Cadmium	11D0349	0.601		mg/kg dry	N/A	1.15	0.671				11	20	
Chromium	11D0349	10.2		mg/kg dry	N/A	1.15	20.6				67	20	R
Lead	11D0349	9.91		mg/kg dry	N/A	5.73	10.9				10	20	
Selenium	11D0349	<8.59		mg/kg dry	N/A	8.59	<8.59					20	
Silver	11D0349	<1.15		mg/kg dry	N/A	1.15	<1.15					20	

GOLDER ASSOCIATES - MANCHESTER, NH 670 North Commercial Street, Suite 103 Manchester, NH 03101 James Peace	Work Order: CUD0086 Project: Electrolux Jefferson, IA Project Number: 103-87305	Received: 04/01/11 Reported: 05/05/11 08:34	

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Total Metals by SW 846 Series Methods														
Arsenic	11D0137		1.92	mg/kg wet	N/A	1.00	1.77		92		80-120			
Mercury	11D0189		0.149	mg/kg wet	N/A	0.0178	0.138		93		80-120			
Mercury	11D0190		0.156	mg/kg wet	N/A	0.0200	0.142		91		80-120			
Mercury	11D0191		0.166	mg/kg wet	N/A	0.0200	0.149		90		80-120			
Arsenic	11D0218		1.85	mg/kg wet	N/A	1.00	1.77		95		80-120			
Barium	11D0252		46.8	mg/kg wet	N/A	0.500	43.3		93		80-110			
Cadmium	11D0252		46.8	mg/kg wet	N/A	1.00	44.3		95		80-115			
Chromium	11D0252		46.8	mg/kg wet	N/A	1.00	44.5		95		85-110			
Lead	11D0252		93.5	mg/kg wet	N/A	5.00	90.9		97		80-115			
Selenium	11D0252		187	mg/kg wet	N/A	7.50	181		97		85-110			
Silver	11D0252		46.8	mg/kg wet	N/A	1.00	45.1		96		80-120			
Barium	11D0253		48.6	mg/kg wet	N/A	0.500	46.7		96		80-110			
Cadmium	11D0253		48.6	mg/kg wet	N/A	1.00	46.2		95		80-115			
Chromium	11D0253		48.6	mg/kg wet	N/A	1.00	45.4		93		85-110			
Lead	11D0253		97.2	mg/kg wet	N/A	5.00	94.2		97		80-115			
Selenium	11D0253		194	mg/kg wet	N/A	7.50	177		91		85-110			
Silver	11D0253		48.6	mg/kg wet	N/A	1.00	45.5		94		80-120			
Arsenic	11D0274		1.89	mg/kg wet	N/A	1.00	1.88		100		80-120			
Barium	11D0349		46.6	mg/kg wet	N/A	0.500	49.6		107		80-110			
Cadmium	11D0349		46.6	mg/kg wet	N/A	1.00	48.1		103		80-115			
Chromium	11D0349		46.6	mg/kg wet	N/A	1.00	46.2		99		85-110			
Lead	11D0349		93.1	mg/kg wet	N/A	5.00	85.2		91		80-115			
Selenium	11D0349		186	mg/kg wet	N/A	7.50	163		88		85-110			
Silver	11D0349		46.6	mg/kg wet	N/A	1.00	48.2		104		80-120			
Volatile Organic Compounds														
Acetone	11D0111		20.0	ug/L	N/A	N/A	24.9		124		60-150			
Acrylonitrile	11D0111		20.0	ug/L	N/A	N/A	18.4		92		50-145			
Benzene	11D0111		20.0	ug/L	N/A	N/A	20.3		102		70-130			
Bromobenzene	11D0111		20.0	ug/L	N/A	N/A	20.8		104		75-130			
Bromochloromethane	11D0111		20.0	ug/L	N/A	N/A	19.5		98		65-145			
Bromodichloromethane	11D0111		20.0	ug/L	N/A	N/A	20.2		101		60-130			
Bromoform	11D0111		20.0	ug/L	N/A	N/A	18.6		93		30-125			
Bromomethane	11D0111		20.0	ug/L	N/A	N/A	14.4		72		35-130			CIN
2-Butanone (MEK)	11D0111		20.0	ug/L	N/A	N/A	18.9		95		55-140			
n-Butylbenzene	11D0111		20.0	ug/L	N/A	N/A	20.8		104		55-135			
sec-Butylbenzene	11D0111		20.0	ug/L	N/A	N/A	20.6		103		65-135			
tert-Butylbenzene	11D0111		20.0	ug/L	N/A	N/A	21.3		106		60-135			
Carbon disulfide	11D0111		20.0	ug/L	N/A	N/A	20.8		104		40-130			
Carbon Tetrachloride	11D0111		20.0	ug/L	N/A	N/A	20.9		105		55-130			
Chlorobenzene	11D0111		20.0	ug/L	N/A	N/A	20.0		100		75-125			
Chlorodibromomethane	11D0111		20.0	ug/L	N/A	N/A	19.7		98		45-125			
Chloroethane	11D0111		20.0	ug/L	N/A	N/A	17.8		89		55-135			
Chloroform	11D0111		20.0	ug/L	N/A	N/A	19.2		96		70-125			
Chloromethane	11D0111		20.0	ug/L	N/A	N/A	15.0		75		30-125			CIN

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
Reported: 05/05/11 08:34

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
2-Chlorotoluene	11D0111		20.0	ug/L	N/A	N/A	20.7		104		75-135			
4-Chlorotoluene	11D0111		20.0	ug/L	N/A	N/A	20.5		103		70-140			
1,2-Dibromo-3-chloropropane	11D0111		20.0	ug/L	N/A	N/A	18.4		92		35-130			
1,2-Dibromoethane (EDB)	11D0111		20.0	ug/L	N/A	N/A	20.1		101		70-135			
Dibromomethane	11D0111		20.0	ug/L	N/A	N/A	19.2		96		75-130			
1,2-Dichlorobenzene	11D0111		20.0	ug/L	N/A	N/A	19.7		99		65-135			
1,3-Dichlorobenzene	11D0111		20.0	ug/L	N/A	N/A	19.2		96		70-130			
1,4-Dichlorobenzene	11D0111		20.0	ug/L	N/A	N/A	19.5		98		60-140			
Dichlorodifluoromethane	11D0111		20.0	ug/L	N/A	N/A	17.6		88		35-130			
1,1-Dichloroethane	11D0111		20.0	ug/L	N/A	N/A	17.0		85		60-130			
1,2-Dichloroethane	11D0111		20.0	ug/L	N/A	N/A	18.8		94		65-140			
1,1-Dichloroethene	11D0111		20.0	ug/L	N/A	N/A	19.9		100		60-135			
cis-1,2-Dichloroethene	11D0111		20.0	ug/L	N/A	N/A	20.4		102		70-135			
trans-1,2-Dichloroethene	11D0111		20.0	ug/L	N/A	N/A	19.9		100		60-145			
1,2-Dichloropropane	11D0111		20.0	ug/L	N/A	N/A	19.6		98		65-130			
1,3-Dichloropropane	11D0111		20.0	ug/L	N/A	N/A	20.6		103		75-125			
2,2-Dichloropropane	11D0111		20.0	ug/L	N/A	N/A	7.19		36		25-120			CIN
1,1-Dichloropropene	11D0111		20.0	ug/L	N/A	N/A	21.9		110		60-140			
cis-1,3-Dichloropropene	11D0111		20.0	ug/L	N/A	N/A	17.6		88		30-120			
trans-1,3-Dichloropropene	11D0111		20.0	ug/L	N/A	N/A	18.1		91		35-120			
Ethylbenzene	11D0111		20.0	ug/L	N/A	N/A	21.0		105		70-130			
Hexachlorobutadiene	11D0111		20.0	ug/L	N/A	N/A	21.5		107		60-135			
Hexane	11D0111		20.0	ug/L	N/A	N/A	20.8		104		40-135			
Isopropylbenzene	11D0111		20.0	ug/L	N/A	N/A	19.8		99		70-125			
p-Isopropyltoluene	11D0111		20.0	ug/L	N/A	N/A	20.9		104		60-140			
Methylene Chloride	11D0111		20.0	ug/L	N/A	N/A	17.4		87		55-145			
Methyl tert-Butyl Ether	11D0111		20.0	ug/L	N/A	N/A	16.8		84		50-135			C9
Naphthalene	11D0111		20.0	ug/L	N/A	N/A	20.0		100		40-135			
n-Propylbenzene	11D0111		20.0	ug/L	N/A	N/A	21.1		106		70-135			
Styrene	11D0111		20.0	ug/L	N/A	N/A	20.8		104		70-130			
1,1,1,2-Tetrachloroethane	11D0111		20.0	ug/L	N/A	N/A	20.9		105		65-120			
1,1,2,2-Tetrachloroethane	11D0111		20.0	ug/L	N/A	N/A	19.0		95		65-130			CIN
Tetrachloroethene	11D0111		20.0	ug/L	N/A	N/A	21.7		109		70-135			
Toluene	11D0111		20.0	ug/L	N/A	N/A	19.2		96		70-135			
1,2,3-Trichlorobenzene	11D0111		20.0	ug/L	N/A	N/A	20.9		104		55-130			
1,2,4-Trichlorobenzene	11D0111		20.0	ug/L	N/A	N/A	19.3		96		40-135			
1,1,1-Trichloroethane	11D0111		20.0	ug/L	N/A	N/A	20.8		104		60-125			
1,1,2-Trichloroethane	11D0111		20.0	ug/L	N/A	N/A	20.2		101		75-125			
Trichloroethene	11D0111		20.0	ug/L	N/A	N/A	21.0		105		70-130			
Trichlorofluoromethane	11D0111		20.0	ug/L	N/A	N/A	22.6		113		55-145			
1,2,3-Trichloropropane	11D0111		20.0	ug/L	N/A	N/A	20.3		102		60-150			
1,2,4-Trimethylbenzene	11D0111		20.0	ug/L	N/A	N/A	20.3		102		70-140			
1,3,5-Trimethylbenzene	11D0111		20.0	ug/L	N/A	N/A	21.2		106		70-140			
Vinyl chloride	11D0111		20.0	ug/L	N/A	N/A	22.3		111		45-135			
Xylenes, total	11D0111		60.0	ug/L	N/A	N/A	63.3		105		70-130			

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Received: 04/01/11
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LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Surrogate: Dibromofluoromethane	*11D0111*			ug/L					*96*		*75-120*			
Surrogate: Toluene-d8	*11D0111*			ug/L					*99*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0111*			ug/L					*102*		*80-120*			
Acetone	11D0407		20.0	ug/L	N/A	N/A	30.4	30.3	152	152	65-150	0	40	L1,S2
Acrylonitrile	11D0407		20.0	ug/L	N/A	N/A	18.7	18.6	93	93	45-140	1	35	
Benzene	11D0407		20.0	ug/L	N/A	N/A	19.4	19.1	97	96	55-135	1	25	
Bromobenzene	11D0407		20.0	ug/L	N/A	N/A	20.0	20.1	100	100	65-125	0	35	
Bromochloromethane	11D0407		20.0	ug/L	N/A	N/A	20.1	20.0	100	100	65-130	0	35	
Bromodichloromethane	11D0407		20.0	ug/L	N/A	N/A	18.6	18.4	93	92	65-130	1	30	
Bromoform	11D0407		20.0	ug/L	N/A	N/A	17.8	18.0	89	90	50-135	1	40	
Bromomethane	11D0407		20.0	ug/L	N/A	N/A	18.5	19.2	93	96	45-135	3	40	
2-Butanone (MEK)	11D0407		20.0	ug/L	N/A	N/A	20.6	19.9	103	100	50-145	4	40	
n-Butylbenzene	11D0407		20.0	ug/L	N/A	N/A	16.0	16.1	80	80	55-130	0	30	
sec-Butylbenzene	11D0407		20.0	ug/L	N/A	N/A	16.3	16.3	82	81	60-125	0	30	
tert-Butylbenzene	11D0407		20.0	ug/L	N/A	N/A	16.4	16.1	82	80	55-125	2	25	
Carbon disulfide	11D0407		20.0	ug/L	N/A	N/A	17.7	17.7	89	88	40-135	0	40	
Carbon Tetrachloride	11D0407		20.0	ug/L	N/A	N/A	16.4	16.6	82	83	55-130	1	30	
Chlorobenzene	11D0407		20.0	ug/L	N/A	N/A	19.5	19.4	98	97	60-120	1	30	
Chlorodibromomethane	11D0407		20.0	ug/L	N/A	N/A	19.2	18.5	96	93	55-130	4	40	
Chloroethane	11D0407		20.0	ug/L	N/A	N/A	19.9	19.3	100	96	50-145	3	40	
Chloroform	11D0407		20.0	ug/L	N/A	N/A	18.4	18.0	92	90	65-130	2	30	
Chloromethane	11D0407		20.0	ug/L	N/A	N/A	19.2	18.9	96	95	40-135	1	40	
2-Chlorotoluene	11D0407		20.0	ug/L	N/A	N/A	17.8	18.6	89	93	60-125	4	35	
4-Chlorotoluene	11D0407		20.0	ug/L	N/A	N/A	18.4	19.2	92	96	60-125	4	35	
1,2-Dibromo-3-chloropropane	11D0407		20.0	ug/L	N/A	N/A	13.7	15.6	69	78	50-140	13	35	
1,2-Dibromoethane (EDB)	11D0407		20.0	ug/L	N/A	N/A	19.0	19.3	95	96	55-140	1	30	
Dibromomethane	11D0407		20.0	ug/L	N/A	N/A	20.1	19.7	101	98	65-135	2	30	
1,2-Dichlorobenzene	11D0407		20.0	ug/L	N/A	N/A	18.7	18.5	93	92	65-120	1	30	
1,3-Dichlorobenzene	11D0407		20.0	ug/L	N/A	N/A	18.2	18.0	91	90	60-125	2	30	
1,4-Dichlorobenzene	11D0407		20.0	ug/L	N/A	N/A	19.1	19.0	95	95	60-125	1	30	
Dichlorodifluoromethane	11D0407		20.0	ug/L	N/A	N/A	16.7	16.6	83	83	40-135	1	35	
1,1-Dichloroethane	11D0407		20.0	ug/L	N/A	N/A	18.1	18.2	91	91	55-135	1	40	
1,2-Dichloroethane	11D0407		20.0	ug/L	N/A	N/A	18.8	18.4	94	92	60-140	2	30	
1,1-Dichloroethene	11D0407		20.0	ug/L	N/A	N/A	19.9	19.9	100	99	50-145	0	40	
cis-1,2-Dichloroethene	11D0407		20.0	ug/L	N/A	N/A	18.8	18.6	94	93	60-135	1	40	
trans-1,2-Dichloroethene	11D0407		20.0	ug/L	N/A	N/A	17.7	17.5	88	87	55-135	1	40	
1,2-Dichloropropane	11D0407		20.0	ug/L	N/A	N/A	20.2	18.6	101	93	55-130	8	30	
1,3-Dichloropropane	11D0407		20.0	ug/L	N/A	N/A	20.7	20.5	103	102	55-140	1	30	
2,2-Dichloropropane	11D0407		20.0	ug/L	N/A	N/A	16.9	16.8	84	84	40-135	0	45	
1,1-Dichloropropene	11D0407		20.0	ug/L	N/A	N/A	18.0	17.6	90	88	55-130	2	30	
cis-1,3-Dichloropropene	11D0407		20.0	ug/L	N/A	N/A	19.7	19.5	98	98	50-115	1	35	
trans-1,3-Dichloropropene	11D0407		20.0	ug/L	N/A	N/A	19.3	19.2	97	96	55-130	1	30	
Ethylbenzene	11D0407		20.0	ug/L	N/A	N/A	18.3	18.6	91	93	60-125	2	30	
Hexachlorobutadiene	11D0407		20.0	ug/L	N/A	N/A	15.0	16.2	75	81	40-135	8	35	

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LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Hexane	11D0407		20.0	ug/L	N/A	N/A	17.5	17.5	88	88	45-140	0	35	
Isopropylbenzene	11D0407		20.0	ug/L	N/A	N/A	17.8	17.9	89	90	60-125	1	35	
p-Isopropyltoluene	11D0407		20.0	ug/L	N/A	N/A	16.6	17.0	83	85	60-120	2	30	
Methylene Chloride	11D0407		20.0	ug/L	N/A	N/A	19.3	18.8	97	94	55-145	3	40	
Methyl tert-Butyl Ether	11D0407		20.0	ug/L	N/A	N/A	19.4	19.7	97	99	55-130	2	30	
Naphthalene	11D0407		20.0	ug/L	N/A	N/A	16.6	17.7	83	89	50-130	7	30	
n-Propylbenzene	11D0407		20.0	ug/L	N/A	N/A	18.0	18.7	90	93	50-125	4	35	
Styrene	11D0407		20.0	ug/L	N/A	N/A	19.8	20.0	99	100	60-125	1	35	
1,1,1,2-Tetrachloroethane	11D0407		20.0	ug/L	N/A	N/A	18.3	18.1	92	91	65-125	1	30	
1,1,2,2-Tetrachloroethane	11D0407		20.0	ug/L	N/A	N/A	19.4	19.9	97	100	60-125	2	35	
Tetrachloroethene	11D0407		20.0	ug/L	N/A	N/A	17.8	18.2	89	91	55-125	2	40	
Toluene	11D0407		20.0	ug/L	N/A	N/A	19.0	19.1	95	95	60-130	1	35	
1,2,3-Trichlorobenzene	11D0407		20.0	ug/L	N/A	N/A	16.5	18.2	83	91	50-130	9	35	
1,2,4-Trichlorobenzene	11D0407		20.0	ug/L	N/A	N/A	16.6	17.6	83	88	45-135	6	35	
1,1,1-Trichloroethane	11D0407		20.0	ug/L	N/A	N/A	16.8	17.2	84	86	60-125	2	30	
1,1,2-Trichloroethane	11D0407		20.0	ug/L	N/A	N/A	21.0	19.8	105	99	55-135	5	30	
Trichloroethene	11D0407		20.0	ug/L	N/A	N/A	18.9	18.5	94	92	60-130	2	30	
Trichlorofluoromethane	11D0407		20.0	ug/L	N/A	N/A	17.4	17.7	87	88	50-145	2	40	
1,2,3-Trichloropropane	11D0407		20.0	ug/L	N/A	N/A	18.8	19.7	94	99	50-145	5	35	
1,2,4-Trimethylbenzene	11D0407		20.0	ug/L	N/A	N/A	17.2	17.7	86	88	55-125	3	35	
1,3,5-Trimethylbenzene	11D0407		20.0	ug/L	N/A	N/A	17.9	18.4	90	92	50-130	3	35	
Vinyl chloride	11D0407		20.0	ug/L	N/A	N/A	18.9	19.1	94	95	45-140	1	40	
Xylenes, total	11D0407		60.0	ug/L	N/A	N/A	58.9	57.4	98	96	50-130	3	30	
Surrogate: Dibromofluoromethane	*11D0407*			ug/L					*99*	*97*	*75-125*			
Surrogate: Toluene-d8	*11D0407*			ug/L					*98*	*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0407*			ug/L					*101*	*102*	*80-120*			
Acetone	11D0490		45.7	ug/kg wet	N/A	114	52.2	54.3	114	121	65-150	4	40	
Acrylonitrile	11D0490		45.7	ug/kg wet	N/A	114	37.9	38.9	83	87	45-140	3	35	
Benzene	11D0490		45.7	ug/kg wet	N/A	11.4	44.9	44.3	98	99	55-135	1	25	
Bromobenzene	11D0490		45.7	ug/kg wet	N/A	11.4	43.6	44.4	95	99	65-125	2	35	
Bromochloromethane	11D0490		45.7	ug/kg wet	N/A	11.4	41.7	39.3	91	88	65-130	6	35	
Bromodichloromethane	11D0490		45.7	ug/kg wet	N/A	11.4	40.2	39.7	88	88	65-130	1	30	
Bromoform	11D0490		45.7	ug/kg wet	N/A	22.9	33.3	33.3	73	74	50-135	0	40	
Bromomethane	11D0490		45.7	ug/kg wet	N/A	45.7	45.0	44.0	98	98	45-135	2	40	
2-Butanone (MEK)	11D0490		45.7	ug/kg wet	N/A	114	42.7	45.2	93	101	50-145	6	40	
n-Butylbenzene	11D0490		45.7	ug/kg wet	N/A	11.4	49.3	48.5	108	108	55-130	1	30	
sec-Butylbenzene	11D0490		45.7	ug/kg wet	N/A	11.4	46.8	45.6	102	102	60-125	3	30	
tert-Butylbenzene	11D0490		45.7	ug/kg wet	N/A	11.4	45.3	43.7	99	98	55-125	3	25	
Carbon disulfide	11D0490		45.7	ug/kg wet	N/A	11.4	39.1	38.5	85	86	40-135	2	40	
Carbon Tetrachloride	11D0490		45.7	ug/kg wet	N/A	11.4	42.7	41.5	93	93	55-130	3	30	
Chlorobenzene	11D0490		45.7	ug/kg wet	N/A	11.4	44.9	44.6	98	100	60-120	1	30	
Chlorodibromomethane	11D0490		45.7	ug/kg wet	N/A	11.4	38.3	38.1	84	85	55-130	1	40	
Chloroethane	11D0490		45.7	ug/kg wet	N/A	45.7	45.7	49.2	100	110	50-145	7	40	
Chloroform	11D0490		45.7	ug/kg wet	N/A	11.4	41.1	40.0	90	89	65-130	3	30	

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Chloromethane	11D0490		45.7	ug/kg wet	N/A	45.7	48.7	48.2	106	108	40-135	1	40	CIN
2-Chlorotoluene	11D0490		45.7	ug/kg wet	N/A	11.4	45.4	45.5	99	102	60-125	0	35	
4-Chlorotoluene	11D0490		45.7	ug/kg wet	N/A	11.4	46.2	46.3	101	103	60-125	0	35	
1,2-Dibromo-3-chloropropane	11D0490		45.7	ug/kg wet	N/A	114	39.6	37.0	86	82	50-140	7	35	
1,2-Dibromoethane (EDB)	11D0490		45.7	ug/kg wet	N/A	114	45.5	43.2	99	96	55-140	5	30	
Dibromomethane	11D0490		45.7	ug/kg wet	N/A	11.4	44.3	44.4	97	99	65-135	0	30	
1,2-Dichlorobenzene	11D0490		45.7	ug/kg wet	N/A	11.4	46.4	44.6	101	99	65-120	4	30	
1,3-Dichlorobenzene	11D0490		45.7	ug/kg wet	N/A	11.4	46.5	46.0	102	103	60-125	1	30	
1,4-Dichlorobenzene	11D0490		45.7	ug/kg wet	N/A	11.4	45.7	45.4	100	101	60-125	1	30	
Dichlorodifluoromethane	11D0490		45.7	ug/kg wet	N/A	34.3	44.3	43.1	97	96	40-135	3	35	
1,1-Dichloroethane	11D0490		45.7	ug/kg wet	N/A	11.4	41.8	41.8	91	93	55-135	0	40	
1,2-Dichloroethane	11D0490		45.7	ug/kg wet	N/A	11.4	43.2	41.8	94	93	60-140	3	30	
1,1-Dichloroethene	11D0490		45.7	ug/kg wet	N/A	11.4	42.5	41.0	93	91	50-145	4	40	
cis-1,2-Dichloroethene	11D0490		45.7	ug/kg wet	N/A	11.4	41.3	40.6	90	91	60-135	2	40	
trans-1,2-Dichloroethene	11D0490		45.7	ug/kg wet	N/A	11.4	40.0	42.6	87	95	55-135	6	40	
1,2-Dichloropropane	11D0490		45.7	ug/kg wet	N/A	11.4	44.7	43.4	98	97	55-130	3	30	
1,3-Dichloropropane	11D0490		45.7	ug/kg wet	N/A	11.4	45.2	44.6	99	99	55-140	1	30	
2,2-Dichloropropane	11D0490		45.7	ug/kg wet	N/A	45.7	38.3	37.7	84	84	40-135	2	45	
1,1-Dichloropropene	11D0490		45.7	ug/kg wet	N/A	11.4	44.2	43.1	97	96	55-130	3	30	
cis-1,3-Dichloropropene	11D0490		45.7	ug/kg wet	N/A	11.4	42.6	42.1	93	94	50-115	1	35	
trans-1,3-Dichloropropene	11D0490		45.7	ug/kg wet	N/A	11.4	40.9	40.0	89	89	55-130	2	30	
Ethylbenzene	11D0490		45.7	ug/kg wet	N/A	11.4	46.7	45.3	102	101	60-125	3	30	
Hexachlorobutadiene	11D0490		45.7	ug/kg wet	N/A	57.2	49.2	47.2	108	105	40-135	4	35	
Hexane	11D0490		45.7	ug/kg wet	N/A	57.2	54.3	52.7	119	118	45-140	3	35	ICV
Isopropylbenzene	11D0490		45.7	ug/kg wet	N/A	11.4	45.7	45.4	100	101	60-125	1	35	
p-Isopropyltoluene	11D0490		45.7	ug/kg wet	N/A	11.4	47.6	46.3	104	103	60-120	3	30	
Methylene Chloride	11D0490		45.7	ug/kg wet	N/A	114	44.9	45.9	98	102	55-145	2	40	
Methyl tert-Butyl Ether	11D0490		45.7	ug/kg wet	N/A	11.4	41.4	41.4	90	92	55-130	0	30	
Naphthalene	11D0490		45.7	ug/kg wet	N/A	57.2	44.1	42.6	96	95	50-130	3	30	
n-Propylbenzene	11D0490		45.7	ug/kg wet	N/A	11.4	47.2	47.2	103	105	50-125	0	35	
Styrene	11D0490		45.7	ug/kg wet	N/A	11.4	43.6	44.0	95	98	60-125	1	35	
1,1,1,2-Tetrachloroethane	11D0490		45.7	ug/kg wet	N/A	11.4	40.7	41.1	89	92	65-125	1	30	
1,1,2,2-Tetrachloroethane	11D0490		45.7	ug/kg wet	N/A	11.4	43.3	42.0	95	94	60-125	3	35	
Tetrachloroethene	11D0490		45.7	ug/kg wet	N/A	11.4	47.3	46.1	104	103	55-125	3	40	
Toluene	11D0490		45.7	ug/kg wet	N/A	11.4	45.7	45.1	100	101	60-130	1	35	
1,2,3-Trichlorobenzene	11D0490		45.7	ug/kg wet	N/A	57.2	47.5	47.1	104	105	50-130	1	35	
1,2,4-Trichlorobenzene	11D0490		45.7	ug/kg wet	N/A	57.2	49.6	48.6	108	108	45-135	2	35	
1,1,1-Trichloroethane	11D0490		45.7	ug/kg wet	N/A	11.4	43.7	43.4	95	97	60-125	1	30	
1,1,2-Trichloroethane	11D0490		45.7	ug/kg wet	N/A	11.4	43.7	43.4	96	97	55-135	1	30	
Trichloroethene	11D0490		45.7	ug/kg wet	N/A	11.4	46.7	45.5	102	101	60-130	3	30	
Trichlorofluoromethane	11D0490		45.7	ug/kg wet	N/A	45.7	44.4	44.1	97	98	50-145	1	40	
1,2,3-Trichloropropane	11D0490		45.7	ug/kg wet	N/A	11.4	41.7	42.5	91	95	50-145	2	35	
1,2,4-Trimethylbenzene	11D0490		45.7	ug/kg wet	N/A	11.4	45.6	45.7	100	102	55-125	0	35	
1,3,5-Trimethylbenzene	11D0490		45.7	ug/kg wet	N/A	11.4	45.4	44.6	99	99	50-130	2	35	
Vinyl chloride	11D0490		45.7	ug/kg wet	N/A	34.3	44.2	42.2	97	94	45-140	5	40	

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LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Xylenes, total	11D0490		137	ug/kg wet	N/A	34.3	135	133	98	99	50-130	1	30	
Surrogate: Dibromofluoromethane	*11D0490*			ug/L					*87*	*88*	*75-125*			
Surrogate: Toluene-d8	*11D0490*			ug/L					*97*	*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0490*			ug/L					*98*	*100*	*80-120*			
Acetone	11D0491		37.1	ug/kg wet	N/A	92.6	66.1		178		65-150			L1,S2
Acrylonitrile	11D0491		37.1	ug/kg wet	N/A	92.6	33.8		91		45-140			
Benzene	11D0491		37.1	ug/kg wet	N/A	9.26	34.1		92		55-135			
Bromobenzene	11D0491		37.1	ug/kg wet	N/A	9.26	34.4		93		65-125			
Bromochloromethane	11D0491		37.1	ug/kg wet	N/A	9.26	36.8		99		65-130			
Bromodichloromethane	11D0491		37.1	ug/kg wet	N/A	9.26	30.0		81		65-130			
Bromoform	11D0491		37.1	ug/kg wet	N/A	18.5	27.8		75		50-135			
Bromomethane	11D0491		37.1	ug/kg wet	N/A	37.1	38.4		104		45-135			
2-Butanone (MEK)	11D0491		37.1	ug/kg wet	N/A	92.6	41.6		112		50-145			
n-Butylbenzene	11D0491		37.1	ug/kg wet	N/A	9.26	26.1		71		55-130			
sec-Butylbenzene	11D0491		37.1	ug/kg wet	N/A	9.26	26.0		70		60-125			
tert-Butylbenzene	11D0491		37.1	ug/kg wet	N/A	9.26	26.2		71		55-125			
Carbon disulfide	11D0491		37.1	ug/kg wet	N/A	9.26	32.7		88		40-135			
Carbon Tetrachloride	11D0491		37.1	ug/kg wet	N/A	9.26	27.0		73		55-130			
Chlorobenzene	11D0491		37.1	ug/kg wet	N/A	9.26	32.5		88		60-120			
Chlorodibromomethane	11D0491		37.1	ug/kg wet	N/A	9.26	29.0		78		55-130			
Chloroethane	11D0491		37.1	ug/kg wet	N/A	37.1	41.6		112		50-145			
Chloroform	11D0491		37.1	ug/kg wet	N/A	9.26	33.3		90		65-130			
Chloromethane	11D0491		37.1	ug/kg wet	N/A	37.1	36.6		99		40-135			
2-Chlorotoluene	11D0491		37.1	ug/kg wet	N/A	9.26	30.5		82		60-125			
4-Chlorotoluene	11D0491		37.1	ug/kg wet	N/A	9.26	31.3		85		60-125			
1,2-Dibromo-3-chloropropane	11D0491		37.1	ug/kg wet	N/A	92.6	20.9		56		50-140			
1,2-Dibromoethane (EDB)	11D0491		37.1	ug/kg wet	N/A	92.6	32.1		87		55-140			
Dibromomethane	11D0491		37.1	ug/kg wet	N/A	9.26	34.5		93		65-135			
1,2-Dichlorobenzene	11D0491		37.1	ug/kg wet	N/A	9.26	31.4		85		65-120			
1,3-Dichlorobenzene	11D0491		37.1	ug/kg wet	N/A	9.26	30.0		81		60-125			
1,4-Dichlorobenzene	11D0491		37.1	ug/kg wet	N/A	9.26	31.8		86		60-125			
Dichlorodifluoromethane	11D0491		37.1	ug/kg wet	N/A	27.8	31.2		84		40-135			
1,1-Dichloroethane	11D0491		37.1	ug/kg wet	N/A	9.26	33.6		91		55-135			
1,2-Dichloroethane	11D0491		37.1	ug/kg wet	N/A	9.26	33.5		91		60-140			
1,1-Dichloroethene	11D0491		37.1	ug/kg wet	N/A	9.26	40.3		109		50-145			
cis-1,2-Dichloroethene	11D0491		37.1	ug/kg wet	N/A	9.26	34.4		93		60-135			
trans-1,2-Dichloroethene	11D0491		37.1	ug/kg wet	N/A	9.26	32.1		87		55-135			
1,2-Dichloropropane	11D0491		37.1	ug/kg wet	N/A	9.26	34.9		94		55-130			
1,3-Dichloropropane	11D0491		37.1	ug/kg wet	N/A	9.26	36.6		99		55-140			
2,2-Dichloropropane	11D0491		37.1	ug/kg wet	N/A	37.1	29.8		80		40-135			
1,1-Dichloropropene	11D0491		37.1	ug/kg wet	N/A	9.26	33.2		90		55-130			
cis-1,3-Dichloropropene	11D0491		37.1	ug/kg wet	N/A	9.26	32.4		88		50-115			
trans-1,3-Dichloropropene	11D0491		37.1	ug/kg wet	N/A	9.26	32.9		89		55-130			
Ethylbenzene	11D0491		37.1	ug/kg wet	N/A	9.26	31.2		84		60-125			

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LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Hexachlorobutadiene	11D0491		37.1	ug/kg wet	N/A	46.3	24.1		65		40-135			
Hexane	11D0491		37.1	ug/kg wet	N/A	46.3	32.0		86		45-140			
Isopropylbenzene	11D0491		37.1	ug/kg wet	N/A	9.26	29.8		80		60-125			
p-Isopropyltoluene	11D0491		37.1	ug/kg wet	N/A	9.26	27.2		73		60-120			
Methylene Chloride	11D0491		37.1	ug/kg wet	N/A	92.6	38.6		104		55-145			
Methyl tert-Butyl Ether	11D0491		37.1	ug/kg wet	N/A	9.26	37.2		100		55-130			
Naphthalene	11D0491		37.1	ug/kg wet	N/A	46.3	26.4		71		50-130			
n-Propylbenzene	11D0491		37.1	ug/kg wet	N/A	9.26	30.7		83		50-125			
Styrene	11D0491		37.1	ug/kg wet	N/A	9.26	33.5		90		60-125			
1,1,1,2-Tetrachloroethane	11D0491		37.1	ug/kg wet	N/A	9.26	29.5		79		65-125			
1,1,2,2-Tetrachloroethane	11D0491		37.1	ug/kg wet	N/A	9.26	32.7		88		60-125			
Tetrachloroethene	11D0491		37.1	ug/kg wet	N/A	9.26	29.9		81		55-125			
Toluene	11D0491		37.1	ug/kg wet	N/A	9.26	34.1		92		60-130			
1,2,3-Trichlorobenzene	11D0491		37.1	ug/kg wet	N/A	46.3	27.9		75		50-130			
1,2,4-Trichlorobenzene	11D0491		37.1	ug/kg wet	N/A	46.3	28.0		76		45-135			
1,1,1-Trichloroethane	11D0491		37.1	ug/kg wet	N/A	9.26	28.6		77		60-125			
1,1,2-Trichloroethane	11D0491		37.1	ug/kg wet	N/A	9.26	35.7		96		55-135			
Trichloroethene	11D0491		37.1	ug/kg wet	N/A	9.26	31.2		84		60-130			
Trichlorofluoromethane	11D0491		37.1	ug/kg wet	N/A	37.1	32.4		87		50-145			
1,2,3-Trichloropropane	11D0491		37.1	ug/kg wet	N/A	9.26	33.6		91		50-145			
1,2,4-Trimethylbenzene	11D0491		37.1	ug/kg wet	N/A	9.26	29.9		81		55-125			
1,3,5-Trimethylbenzene	11D0491		37.1	ug/kg wet	N/A	9.26	30.8		83		50-130			
Vinyl chloride	11D0491		37.1	ug/kg wet	N/A	27.8	35.7		96		45-140			
Xylenes, total	11D0491		111	ug/kg wet	N/A	27.8	101		91		50-130			
Surrogate: Dibromofluoromethane	*11D0491*			ug/L					*100*		*75-125*			
Surrogate: Toluene-d8	*11D0491*			ug/L					*96*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0491*			ug/L					*102*		*80-120*			
Acetone	11D0492		45.5	ug/kg wet	N/A	114	69.1	66.4	152	142	65-150	4	40	L1
Acrylonitrile	11D0492		45.5	ug/kg wet	N/A	114	50.0	49.0	110	105	45-140	2	35	
Benzene	11D0492		45.5	ug/kg wet	N/A	11.4	48.1	48.2	106	103	55-135	0	25	
Bromobenzene	11D0492		45.5	ug/kg wet	N/A	11.4	48.8	47.1	107	101	65-125	4	35	
Bromochloromethane	11D0492		45.5	ug/kg wet	N/A	11.4	48.4	47.7	106	102	65-130	2	35	
Bromodichloromethane	11D0492		45.5	ug/kg wet	N/A	11.4	48.0	47.5	105	102	65-130	1	30	
Bromoform	11D0492		45.5	ug/kg wet	N/A	22.8	41.9	43.3	92	92	50-135	3	40	
Bromomethane	11D0492		45.5	ug/kg wet	N/A	45.5	63.3	62.9	139	134	45-135	1	40	L
2-Butanone (MEK)	11D0492		45.5	ug/kg wet	N/A	114	46.6	46.0	102	98	50-145	1	40	
n-Butylbenzene	11D0492		45.5	ug/kg wet	N/A	11.4	48.0	46.9	105	100	55-130	2	30	
sec-Butylbenzene	11D0492		45.5	ug/kg wet	N/A	11.4	48.0	47.6	105	102	60-125	1	30	
tert-Butylbenzene	11D0492		45.5	ug/kg wet	N/A	11.4	48.2	47.9	106	102	55-125	1	25	
Carbon disulfide	11D0492		45.5	ug/kg wet	N/A	11.4	48.1	49.4	106	106	40-135	3	40	
Carbon Tetrachloride	11D0492		45.5	ug/kg wet	N/A	11.4	47.3	47.2	104	101	55-130	0	30	
Chlorobenzene	11D0492		45.5	ug/kg wet	N/A	11.4	48.0	47.4	106	101	60-120	1	30	
Chlorodibromomethane	11D0492		45.5	ug/kg wet	N/A	11.4	45.5	44.9	100	96	55-130	1	40	
Chloroethane	11D0492		45.5	ug/kg wet	N/A	45.5	56.6	53.4	124	114	50-145	6	40	

GOLDER ASSOCIATES - MANCHESTER, NH
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James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Chloroform	11D0492		45.5	ug/kg wet	N/A	11.4	49.4	49.6	108	106	65-130	1	30	
Chloromethane	11D0492		45.5	ug/kg wet	N/A	45.5	46.3	47.5	102	102	40-135	3	40	
2-Chlorotoluene	11D0492		45.5	ug/kg wet	N/A	11.4	47.6	47.1	105	101	60-125	1	35	
4-Chlorotoluene	11D0492		45.5	ug/kg wet	N/A	11.4	47.4	47.0	104	101	60-125	1	35	
1,2-Dibromo-3-chloropropane	11D0492		45.5	ug/kg wet	N/A	114	47.2	47.7	104	102	50-140	1	35	
1,2-Dibromoethane (EDB)	11D0492		45.5	ug/kg wet	N/A	114	46.9	47.5	103	102	55-140	1	30	
Dibromomethane	11D0492		45.5	ug/kg wet	N/A	11.4	47.7	48.9	105	104	65-135	2	30	
1,2-Dichlorobenzene	11D0492		45.5	ug/kg wet	N/A	11.4	47.2	48.3	104	103	65-120	2	30	
1,3-Dichlorobenzene	11D0492		45.5	ug/kg wet	N/A	11.4	47.8	46.8	105	100	60-125	2	30	
1,4-Dichlorobenzene	11D0492		45.5	ug/kg wet	N/A	11.4	46.8	46.5	103	99	60-125	1	30	
Dichlorodifluoromethane	11D0492		45.5	ug/kg wet	N/A	34.2	49.6	49.5	109	106	40-135	0	35	
1,1-Dichloroethane	11D0492		45.5	ug/kg wet	N/A	11.4	51.5	51.1	113	109	55-135	1	40	
1,2-Dichloroethane	11D0492		45.5	ug/kg wet	N/A	11.4	51.1	52.1	112	111	60-140	2	30	
1,1-Dichloroethene	11D0492		45.5	ug/kg wet	N/A	11.4	48.5	48.3	106	103	50-145	0	40	
cis-1,2-Dichloroethene	11D0492		45.5	ug/kg wet	N/A	11.4	50.3	48.8	110	104	60-135	3	40	
trans-1,2-Dichloroethene	11D0492		45.5	ug/kg wet	N/A	11.4	48.5	47.4	106	101	55-135	2	40	
1,2-Dichloropropane	11D0492		45.5	ug/kg wet	N/A	11.4	48.2	48.0	106	103	55-130	1	30	
1,3-Dichloropropane	11D0492		45.5	ug/kg wet	N/A	11.4	49.5	50.0	109	107	55-140	1	30	
2,2-Dichloropropane	11D0492		45.5	ug/kg wet	N/A	45.5	47.7	47.3	105	101	40-135	1	45	
1,1-Dichloropropene	11D0492		45.5	ug/kg wet	N/A	11.4	49.1	49.9	108	107	55-130	2	30	
cis-1,3-Dichloropropene	11D0492		45.5	ug/kg wet	N/A	11.4	48.0	47.8	105	102	50-115	0	35	
trans-1,3-Dichloropropene	11D0492		45.5	ug/kg wet	N/A	11.4	44.8	47.1	98	101	55-130	5	30	
Ethylbenzene	11D0492		45.5	ug/kg wet	N/A	11.4	48.7	48.7	107	104	60-125	0	30	
Hexachlorobutadiene	11D0492		45.5	ug/kg wet	N/A	56.9	47.8	46.9	105	100	40-135	2	35	
Hexane	11D0492		45.5	ug/kg wet	N/A	56.9	62.9	62.1	138	133	45-140	1	35	ICV
Isopropylbenzene	11D0492		45.5	ug/kg wet	N/A	11.4	47.6	47.8	105	102	60-125	0	35	
p-Isopropyltoluene	11D0492		45.5	ug/kg wet	N/A	11.4	48.0	47.8	105	102	60-120	0	30	
Methylene Chloride	11D0492		45.5	ug/kg wet	N/A	114	58.9	60.3	129	129	55-145	2	40	
Methyl tert-Butyl Ether	11D0492		45.5	ug/kg wet	N/A	11.4	50.5	51.8	111	111	55-130	3	30	
Naphthalene	11D0492		45.5	ug/kg wet	N/A	56.9	47.3	47.1	104	101	50-130	0	30	
n-Propylbenzene	11D0492		45.5	ug/kg wet	N/A	11.4	48.5	47.1	107	101	50-125	3	35	
Styrene	11D0492		45.5	ug/kg wet	N/A	11.4	47.6	47.0	104	100	60-125	1	35	
1,1,1,2-Tetrachloroethane	11D0492		45.5	ug/kg wet	N/A	11.4	46.8	47.4	103	101	65-125	1	30	
1,1,2,2-Tetrachloroethane	11D0492		45.5	ug/kg wet	N/A	11.4	46.9	46.7	103	100	60-125	1	35	
Tetrachloroethene	11D0492		45.5	ug/kg wet	N/A	11.4	46.1	44.6	101	95	55-125	3	40	
Toluene	11D0492		45.5	ug/kg wet	N/A	11.4	48.5	47.3	107	101	60-130	3	35	
1,2,3-Trichlorobenzene	11D0492		45.5	ug/kg wet	N/A	56.9	47.3	47.1	104	101	50-130	1	35	
1,2,4-Trichlorobenzene	11D0492		45.5	ug/kg wet	N/A	56.9	46.8	47.2	103	101	45-135	1	35	
1,1,1-Trichloroethane	11D0492		45.5	ug/kg wet	N/A	11.4	46.8	48.9	103	104	60-125	4	30	
1,1,2-Trichloroethane	11D0492		45.5	ug/kg wet	N/A	11.4	49.0	48.9	108	105	55-135	0	30	
Trichloroethene	11D0492		45.5	ug/kg wet	N/A	11.4	48.8	47.1	107	101	60-130	4	30	
Trichlorofluoromethane	11D0492		45.5	ug/kg wet	N/A	45.5	51.5	51.0	113	109	50-145	1	40	
1,2,3-Trichloropropane	11D0492		45.5	ug/kg wet	N/A	11.4	47.8	47.7	105	102	50-145	0	35	
1,2,4-Trimethylbenzene	11D0492		45.5	ug/kg wet	N/A	11.4	49.6	48.3	109	103	55-125	3	35	
1,3,5-Trimethylbenzene	11D0492		45.5	ug/kg wet	N/A	11.4	47.7	46.7	105	100	50-130	2	35	

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LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Vinyl chloride	11D0492		45.5	ug/kg wet	N/A	34.2	51.1	51.7	112	110	45-140	1	40	
Xylenes, total	11D0492		137	ug/kg wet	N/A	34.2	142	141	104	101	50-130	1	30	
Surrogate: Dibromofluoromethane	*11D0492*			ug/L					*103*	*106*	*75-125*			
Surrogate: Toluene-d8	*11D0492*			ug/L					*101*	*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0492*			ug/L					*99*	*99*	*80-120*			
Acetone	11D0555		973	ug/kg wet	N/A	9730	<9730	<9730			65-150		40	L1
Acrylonitrile	11D0555		973	ug/kg wet	N/A	9730	813	588	84	61	45-140	32	35	
Benzene	11D0555		973	ug/kg wet	N/A	973	1120	936	115	96	55-135	18	25	
Bromobenzene	11D0555		973	ug/kg wet	N/A	973	1200	893	124	92	65-125	29	35	
Bromochloromethane	11D0555		973	ug/kg wet	N/A	973	1260	1140	129	117	65-130	10	35	
Bromodichloromethane	11D0555		973	ug/kg wet	N/A	973	976	800	100	82	65-130	20	30	
Bromoform	11D0555		973	ug/kg wet	N/A	1950	984	730	101	75	50-135	30	40	
Bromomethane	11D0555		973	ug/kg wet	N/A	3890	726	553	75	57	45-135	27	40	CIN
2-Butanone (MEK)	11D0555		973	ug/kg wet	N/A	9730	1010	802	104	83	50-145	23	40	
n-Butylbenzene	11D0555		973	ug/kg wet	N/A	973	1290	924	133	95	55-130	33	30	L1,R
sec-Butylbenzene	11D0555		973	ug/kg wet	N/A	973	1280	940	132	97	60-125	31	30	L1,R
tert-Butylbenzene	11D0555		973	ug/kg wet	N/A	973	1270	924	131	95	55-125	32	25	L1,R
Carbon disulfide	11D0555		973	ug/kg wet	N/A	973	988	957	102	99	40-135	3	40	
Carbon Tetrachloride	11D0555		973	ug/kg wet	N/A	973	1090	948	112	98	55-130	14	30	
Chlorobenzene	11D0555		973	ug/kg wet	N/A	973	1150	874	119	90	60-120	28	30	
Chlorodibromomethane	11D0555		973	ug/kg wet	N/A	973	1050	790	108	81	55-130	29	40	
Chloroethane	11D0555		973	ug/kg wet	N/A	3890	490	414	50	43	50-145	17	40	L1
Chloroform	11D0555		973	ug/kg wet	N/A	973	1030	901	106	93	65-130	14	30	
Chloromethane	11D0555		973	ug/kg wet	N/A	3890	720	600	74	62	40-135	18	40	CIN
2-Chlorotoluene	11D0555		973	ug/kg wet	N/A	973	1200	903	123	93	60-125	28	35	
4-Chlorotoluene	11D0555		973	ug/kg wet	N/A	973	1170	889	120	92	60-125	27	35	
1,2-Dibromo-3-chloropropane	11D0555		973	ug/kg wet	N/A	9730	842	610	87	63	50-140	32	35	
1,2-Dibromoethane (EDB)	11D0555		973	ug/kg wet	N/A	9730	1050	821	108	85	55-140	25	30	
Dibromomethane	11D0555		973	ug/kg wet	N/A	973	1040	901	107	93	65-135	14	30	
1,2-Dichlorobenzene	11D0555		973	ug/kg wet	N/A	973	1140	810	118	83	65-120	34	30	R7
1,3-Dichlorobenzene	11D0555		973	ug/kg wet	N/A	973	1120	843	115	87	60-125	28	30	
1,4-Dichlorobenzene	11D0555		973	ug/kg wet	N/A	973	1130	814	116	84	60-125	33	30	R7
Dichlorodifluoromethane	11D0555		973	ug/kg wet	N/A	2920	471	437	48	45	40-135	7	35	
1,1-Dichloroethane	11D0555		973	ug/kg wet	N/A	973	1120	977	115	101	55-135	14	40	
1,2-Dichloroethane	11D0555		973	ug/kg wet	N/A	973	893	759	92	78	60-140	16	30	
1,1-Dichloroethene	11D0555		973	ug/kg wet	N/A	973	982	919	101	95	50-145	7	40	
cis-1,2-Dichloroethene	11D0555		973	ug/kg wet	N/A	973	1110	994	114	102	60-135	11	40	
trans-1,2-Dichloroethene	11D0555		973	ug/kg wet	N/A	973	1160	1060	119	109	55-135	9	40	
1,2-Dichloropropane	11D0555		973	ug/kg wet	N/A	973	996	829	102	85	55-130	18	30	
1,3-Dichloropropane	11D0555		973	ug/kg wet	N/A	973	1070	858	110	88	55-140	22	30	
2,2-Dichloropropane	11D0555		973	ug/kg wet	N/A	3890	1650	1410	170	145	40-135	16	45	CIN,L1
1,1-Dichloropropene	11D0555		973	ug/kg wet	N/A	973	1240	1020	127	105	55-130	20	30	
cis-1,3-Dichloropropene	11D0555		973	ug/kg wet	N/A	973	1040	833	107	86	50-115	22	35	
trans-1,3-Dichloropropene	11D0555		973	ug/kg wet	N/A	973	1040	752	107	77	55-130	32	30	R

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LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Ethylbenzene	11D0555		973	ug/kg wet	N/A	973	1210	936	124	96	60-125	25	30	
Hexachlorobutadiene	11D0555		973	ug/kg wet	N/A	4860	1240	886	128	91	40-135	34	35	
Hexane	11D0555		973	ug/kg wet	N/A	4860	1230	1130	126	116	45-140	8	35	
Isopropylbenzene	11D0555		973	ug/kg wet	N/A	973	1180	919	122	95	60-125	25	35	
p-Isopropyltoluene	11D0555		973	ug/kg wet	N/A	973	1260	919	130	95	60-120	31	30	L1,R
Methylene Chloride	11D0555		973	ug/kg wet	N/A	9730	1430	1360	147	140	55-145	4	40	L1
Methyl tert-Butyl Ether	11D0555		973	ug/kg wet	N/A	973	1010	851	104	88	55-130	17	30	
Naphthalene	11D0555		973	ug/kg wet	N/A	4860	1790	1150	184	118	50-130	43	30	L1,R7
n-Propylbenzene	11D0555		973	ug/kg wet	N/A	973	1290	973	133	100	50-125	28	35	L1
Styrene	11D0555		973	ug/kg wet	N/A	973	1140	843	118	87	60-125	30	35	
1,1,1,2-Tetrachloroethane	11D0555		973	ug/kg wet	N/A	973	1180	814	121	84	65-125	37	30	R
1,1,2,2-Tetrachloroethane	11D0555		973	ug/kg wet	N/A	973	1270	827	131	85	60-125	42	35	CIN,L1,R
Tetrachloroethene	11D0555		973	ug/kg wet	N/A	973	1440	1130	148	117	55-125	24	40	C,L1
Toluene	11D0555		973	ug/kg wet	N/A	973	1070	886	110	91	60-130	18	35	
1,2,3-Trichlorobenzene	11D0555		973	ug/kg wet	N/A	4860	1190	944	122	97	50-130	23	35	
1,2,4-Trichlorobenzene	11D0555		973	ug/kg wet	N/A	4860	1120	886	116	91	45-135	24	35	
1,1,1-Trichloroethane	11D0555		973	ug/kg wet	N/A	973	1150	936	119	96	60-125	21	30	
1,1,2-Trichloroethane	11D0555		973	ug/kg wet	N/A	973	1020	810	105	83	55-135	23	30	
Trichloroethene	11D0555		973	ug/kg wet	N/A	973	1170	1010	120	104	60-130	14	30	
Trichlorofluoromethane	11D0555		973	ug/kg wet	N/A	3890	943	775	97	80	50-145	20	40	
1,2,3-Trichloropropane	11D0555		973	ug/kg wet	N/A	973	1050	767	108	79	50-145	31	35	
1,2,4-Trimethylbenzene	11D0555		973	ug/kg wet	N/A	973	1310	979	135	101	55-125	29	35	L1
1,3,5-Trimethylbenzene	11D0555		973	ug/kg wet	N/A	973	1260	950	129	98	50-130	28	35	
Vinyl chloride	11D0555		973	ug/kg wet	N/A	2920	1010	831	104	86	45-140	19	40	
Xylenes, total	11D0555		2920	ug/kg wet	N/A	2920	3660	2850	125	98	50-130	25	30	
Surrogate: Dibromofluoromethane	*11D0555*			ug/L					*95*	*105*	*75-125*			
Surrogate: Toluene-d8	*11D0555*			ug/L					*96*	*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0555*			ug/L					*103*	*107*	*80-120*			
Acetone	11D0560		973	ug/kg wet	N/A	2430	2180	2050	224	211	65-150	6	40	L1
Acrylonitrile	11D0560		973	ug/kg wet	N/A	2430	1570	1470	162	152	45-140	7	35	L1
Benzene	11D0560		973	ug/kg wet	N/A	243	1570	1480	162	153	55-135	6	25	L1
Bromobenzene	11D0560		973	ug/kg wet	N/A	243	1740	1580	179	162	65-125	10	35	C,L1
Bromochloromethane	11D0560		973	ug/kg wet	N/A	243	1520	1400	157	144	65-130	9	35	L1
Bromodichloromethane	11D0560		973	ug/kg wet	N/A	243	1140	1060	117	109	65-130	7	30	
Bromoform	11D0560		973	ug/kg wet	N/A	486	998	952	103	98	50-135	5	40	
Bromomethane	11D0560		973	ug/kg wet	N/A	973	1220	1140	125	118	45-135	6	40	
2-Butanone (MEK)	11D0560		973	ug/kg wet	N/A	2430	1890	1810	194	186	50-145	4	40	L1
n-Butylbenzene	11D0560		973	ug/kg wet	N/A	243	1450	1350	149	139	55-130	7	30	L1
sec-Butylbenzene	11D0560		973	ug/kg wet	N/A	243	1530	1400	157	144	60-125	9	30	L1
tert-Butylbenzene	11D0560		973	ug/kg wet	N/A	243	1560	1390	160	144	55-125	11	25	L1
Carbon disulfide	11D0560		973	ug/kg wet	N/A	243	974	938	100	97	40-135	4	40	
Carbon Tetrachloride	11D0560		973	ug/kg wet	N/A	243	1250	1150	129	119	55-130	8	30	
Chlorobenzene	11D0560		973	ug/kg wet	N/A	243	1670	1510	171	156	60-120	10	30	C,L1
Chlorodibromomethane	11D0560		973	ug/kg wet	N/A	243	1240	1110	128	114	55-130	11	40	

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Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Chloroethane	11D0560		973	ug/kg wet	N/A	973	719	619	74	64	50-145	15	40	
Chloroform	11D0560		973	ug/kg wet	N/A	243	1350	1280	139	132	65-130	6	30	L1
Chloromethane	11D0560		973	ug/kg wet	N/A	973	930	915	96	94	40-135	2	40	
2-Chlorotoluene	11D0560		973	ug/kg wet	N/A	243	1640	1500	168	154	60-125	9	35	L1
4-Chlorotoluene	11D0560		973	ug/kg wet	N/A	243	1600	1460	165	150	60-125	10	35	CIN,L1
1,2-Dibromo-3-chloropropane	11D0560		973	ug/kg wet	N/A	2430	1090	1090	112	112	50-140	1	35	
1,2-Dibromoethane (EDB)	11D0560		973	ug/kg wet	N/A	2430	1720	1580	177	163	55-140	8	30	L1
Dibromomethane	11D0560		973	ug/kg wet	N/A	243	1650	1530	169	158	65-135	7	30	L1
1,2-Dichlorobenzene	11D0560		973	ug/kg wet	N/A	243	1560	1420	160	146	65-120	9	30	CIN,L1
1,3-Dichlorobenzene	11D0560		973	ug/kg wet	N/A	243	1490	1350	153	139	60-125	10	30	L1
1,4-Dichlorobenzene	11D0560		973	ug/kg wet	N/A	243	1490	1350	153	139	60-125	10	30	L1
Dichlorodifluoromethane	11D0560		973	ug/kg wet	N/A	729	673	643	69	66	40-135	4	35	
1,1-Dichloroethane	11D0560		973	ug/kg wet	N/A	243	1310	1250	135	129	55-135	5	40	
1,2-Dichloroethane	11D0560		973	ug/kg wet	N/A	243	1510	1400	155	144	60-140	7	30	L1
1,1-Dichloroethene	11D0560		973	ug/kg wet	N/A	243	1230	1200	127	124	50-145	2	40	
cis-1,2-Dichloroethene	11D0560		973	ug/kg wet	N/A	243	1450	1420	149	147	60-135	2	40	L1
trans-1,2-Dichloroethene	11D0560		973	ug/kg wet	N/A	243	1290	1190	133	122	55-135	8	40	
1,2-Dichloropropane	11D0560		973	ug/kg wet	N/A	243	1520	1410	156	145	55-130	8	30	L1
1,3-Dichloropropane	11D0560		973	ug/kg wet	N/A	243	1680	1610	173	165	55-140	5	30	L1
2,2-Dichloropropane	11D0560		973	ug/kg wet	N/A	973	1120	1110	116	114	40-135	1	45	
1,1-Dichloropropene	11D0560		973	ug/kg wet	N/A	243	1500	1400	154	144	55-130	7	30	L1
cis-1,3-Dichloropropene	11D0560		973	ug/kg wet	N/A	243	1230	1160	127	119	50-115	6	35	L1
trans-1,3-Dichloropropene	11D0560		973	ug/kg wet	N/A	243	1190	1080	122	111	55-130	9	30	
Ethylbenzene	11D0560		973	ug/kg wet	N/A	243	1630	1510	168	155	60-125	8	30	L1
Hexachlorobutadiene	11D0560		973	ug/kg wet	N/A	1220	1550	1450	160	150	40-135	7	35	L1
Hexane	11D0560		973	ug/kg wet	N/A	1220	1260	1230	130	126	45-140	3	35	CIN
Isopropylbenzene	11D0560		973	ug/kg wet	N/A	243	1530	1400	157	144	60-125	9	35	L1
p-Isopropyltoluene	11D0560		973	ug/kg wet	N/A	243	1490	1380	153	142	60-120	8	30	CIN,L1
Methylene Chloride	11D0560		973	ug/kg wet	N/A	2430	1300	1270	133	131	55-145	2	40	
Methyl tert-Butyl Ether	11D0560		973	ug/kg wet	N/A	243	1430	1410	147	145	55-130	2	30	L1
Naphthalene	11D0560		973	ug/kg wet	N/A	1220	1510	1430	155	147	50-130	5	30	CIN,L1
n-Propylbenzene	11D0560		973	ug/kg wet	N/A	243	1620	1470	167	151	50-125	10	35	L1
Styrene	11D0560		973	ug/kg wet	N/A	243	1620	1450	167	149	60-125	12	35	CIN,L1
1,1,1,2-Tetrachloroethane	11D0560		973	ug/kg wet	N/A	243	1420	1270	146	131	65-125	11	30	CIN,L1
1,1,2,2-Tetrachloroethane	11D0560		973	ug/kg wet	N/A	243	1610	1550	165	159	60-125	4	35	L1
Tetrachloroethene	11D0560		973	ug/kg wet	N/A	243	1780	1560	183	161	55-125	13	40	C,L1
Toluene	11D0560		973	ug/kg wet	N/A	243	1610	1480	165	152	60-130	8	35	L1
1,2,3-Trichlorobenzene	11D0560		973	ug/kg wet	N/A	1220	1650	1560	170	160	50-130	6	35	L1
1,2,4-Trichlorobenzene	11D0560		973	ug/kg wet	N/A	1220	1480	1390	152	143	45-135	6	35	L1
1,1,1-Trichloroethane	11D0560		973	ug/kg wet	N/A	243	1420	1320	146	136	60-125	7	30	L1
1,1,2-Trichloroethane	11D0560		973	ug/kg wet	N/A	243	1500	1400	154	144	55-135	7	30	L1
Trichloroethene	11D0560		973	ug/kg wet	N/A	243	1520	1370	157	141	60-130	11	30	L1
Trichlorofluoromethane	11D0560		973	ug/kg wet	N/A	973	1310	1240	135	128	50-145	6	40	
1,2,3-Trichloropropane	11D0560		973	ug/kg wet	N/A	243	1890	1720	194	177	50-145	9	35	C,CIN,L1
1,2,4-Trimethylbenzene	11D0560		973	ug/kg wet	N/A	243	1630	1480	168	153	55-125	10	35	L1

GOLDER ASSOCIATES - MANCHESTER, NH
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Received: 04/01/11
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LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
1,3,5-Trimethylbenzene	11D0560		973	ug/kg wet	N/A	243	1690	1550	174	160	50-130	9	35	C,L1
Vinyl chloride	11D0560		973	ug/kg wet	N/A	729	1130	1090	116	112	45-140	3	40	CIN
Xylenes, total	11D0560		2920	ug/kg wet	N/A	729	5020	4670	172	160	50-130	7	30	C,L1
Surrogate: Dibromofluoromethane	*11D0560*			ug/L					*91*	*94*	*75-125*			
Surrogate: Toluene-d8	*11D0560*			ug/L					*98*	*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0560*			ug/L					*103*	*105*	*80-120*			
UST Volatile Compounds by GC														
TPH as Gasoline	11D0258		93.5	mg/kg	N/A	10.0	121		130		70-145			
TPH as Gasoline	11D0350		97.3	mg/kg	N/A	10.0	112	114	115	121	70-145	1	20	
TPH as Gasoline	11D0549		94.2	mg/kg	N/A	10.0	122		130		70-145			
TPH as Gasoline	11D0582		95.3	mg/kg	N/A	10.0	110	117	116	123	70-145	6	20	B
UST ANALYSIS PARAMETERS														
Diesel	11D0059		66.7	mg/kg	N/A	10.0	53.8		81		65-125			
Surrogate: Octacosane	*11D0059*			mg/kg					*87*		*65-150*			
Diesel	11D0082		66.7	mg/kg	N/A	10.0	55.9		84		65-125			
Surrogate: Octacosane	*11D0082*			mg/kg					*84*		*65-150*			
Motor Oil	11D0140		66.7	mg/kg	N/A	10.0	65.8		99		70-130			
Surrogate: Octacosane	*11D0140*			mg/kg					*160*		*65-150*			ZX
Motor Oil	11D0209		66.7	mg/kg	N/A	10.0	60.3		90		70-130			
Surrogate: Octacosane	*11D0209*			mg/kg					*149*		*65-150*			
Polychlorinated Biphenyls by EPA Method 8082														
PCB-1268	11D0081		0.167	mg/kg wet	N/A	0.0500	0.140		84		45-120			
Surrogate: Decachlorobiphenyl	*11D0081*			mg/kg wet					*91*		*60-115*			
Surrogate: Tetrachloro-meta-xylene	*11D0081*			mg/kg wet					*63*		*45-100*			
HEM														
HEM (Oil & Grease)	109597		4000	mg/Kg dry	N/A	500	4370		109		80-120			
HEM (Oil & Grease)	109897		4000	mg/Kg dry	N/A	500	4290		107		80-120			
HEM (Oil & Grease)	110190		4000	mg/Kg dry	N/A	500	4460		112		80-120			

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Total Metals by SW 846 Series Methods														
QC Source Sample: CUC1608-02														
Arsenic	11D0137	3.12	4.96	mg/kg dry	N/A	1.25	8.35	8.60	105	111	75-125	3	20	
QC Source Sample: CUD0086-01														
Arsenic	11D0137	7.32	4.58	mg/kg dry	N/A	1.18	11.0		80		75-125			
QC Source Sample: CUD0069-19														
Mercury	11D0189	0.0191	0.182	mg/kg dry	N/A	0.0234	0.187	0.176	93	92	70-130	6	20	
QC Source Sample: CUD0086-17														
Mercury	11D0190	0.0132	0.192	mg/kg dry	N/A	0.0232	0.187	0.175	91	84	70-130	7	20	
QC Source Sample: CUD0086-37														
Mercury	11D0191	0.0158	0.181	mg/kg dry	N/A	0.0231	0.183	0.192	93	92	70-130	5	20	
QC Source Sample: CUD0090-12														
Mercury	11D0191	0.0283	0.278	mg/kg dry	N/A	0.0346	0.291	0.282	95	94	70-130	3	20	
QC Source Sample: CUD0086-11														
Arsenic	11D0218	8.56	4.84	mg/kg dry	N/A	1.22	10.2	10.3	33	37	75-125	1	20	M1
QC Source Sample: CUD0086-21														
Arsenic	11D0218	5.31	4.41	mg/kg dry	N/A	1.21	10.8		125		75-125			
QC Source Sample: CUD0086-01														
Barium	11D0252	92.3	113	mg/kg dry	N/A	1.76	223	208	116	99	75-125	7	20	
Cadmium	11D0252	0.200	113	mg/kg dry	N/A	3.53	111	113	98	96	75-125	1	20	
Chromium	11D0252	15.7	113	mg/kg dry	N/A	3.53	131	128	102	96	75-120	2	20	
Lead	11D0252	8.44	226	mg/kg dry	N/A	17.6	239	244	102	100	75-125	2	20	
Selenium	11D0252	<26.4	452	mg/kg dry	N/A	26.4	465	467	103	100	75-115	0	20	
Silver	11D0252	<3.53	113	mg/kg dry	N/A	3.53	117	116	104	99	75-110	1	20	
QC Source Sample: CUD0086-11														
Barium	11D0252	138	121	mg/kg dry	N/A	0.610	280		117		75-125			
Cadmium	11D0252	0.308	121	mg/kg dry	N/A	1.22	116		95		75-125			
Chromium	11D0252	19.2	121	mg/kg dry	N/A	1.22	142		101		75-120			
Lead	11D0252	8.51	243	mg/kg dry	N/A	6.10	257		102		75-125			
Selenium	11D0252	<9.15	485	mg/kg dry	N/A	9.15	488		101		75-115			
Silver	11D0252	<1.22	121	mg/kg dry	N/A	1.22	71.1		59		75-110			M1
QC Source Sample: CUD0086-20														
Barium	11D0253	138	108	mg/kg dry	N/A	0.576	268	248	120	95	75-125	8	20	
Cadmium	11D0253	0.387	108	mg/kg dry	N/A	1.15	113	110	105	95	75-125	3	20	
Chromium	11D0253	14.0	108	mg/kg dry	N/A	1.15	124	122	102	94	75-120	2	20	
Lead	11D0253	3.05	216	mg/kg dry	N/A	5.76	235	222	107	95	75-125	6	20	
Selenium	11D0253	<8.64	432	mg/kg dry	N/A	8.64	461	443	107	96	75-115	4	20	
Silver	11D0253	<1.15	108	mg/kg dry	N/A	1.15	127	113	118	98	75-110	12	20	M1
QC Source Sample: CUD0086-30														
Barium	11D0253	83.6	103	mg/kg dry	N/A	0.516	213		125		75-125			
Cadmium	11D0253	0.707	103	mg/kg dry	N/A	1.03	108		104		75-125			
Chromium	11D0253	14.9	103	mg/kg dry	N/A	1.03	116		98		75-120			
Lead	11D0253	3.28	206	mg/kg dry	N/A	5.16	220		105		75-125			
Selenium	11D0253	<7.74	413	mg/kg dry	N/A	7.74	416		101		75-115			
Silver	11D0253	<1.03	103	mg/kg dry	N/A	1.03	115		112		75-110			M1
QC Source Sample: CUD0086-31														
Arsenic	11D0274	0.906	4.98	mg/kg dry	N/A	1.25	5.44	6.78	91	123	75-125	22	20	M1
QC Source Sample: CUD0086-41														
Arsenic	11D0274	6.03	4.40	mg/kg dry	N/A	1.15	8.21		50		75-125			M1
QC Source Sample: CUD0086-40														
Barium	11D0349	138	112	mg/kg dry	N/A	0.613	268	267	115	109	75-125	0	20	

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Total Metals by SW 846 Series Methods														
QC Source Sample: CUD0086-40														
Cadmium	11D0349	0.332	112	mg/kg dry	N/A	1.23	150	116	133	98	75-125	26	20	M1,R
Chromium	11D0349	17.1	112	mg/kg dry	N/A	1.23	168	129	134	95	75-120	26	20	M1,R
Lead	11D0349	9.57	225	mg/kg dry	N/A	6.13	313	225	135	91	75-125	33	20	M1,R
Selenium	11D0349	<9.19	450	mg/kg dry	N/A	9.19	651	410	145	87	75-115	45	20	M1,R
Silver	11D0349	<1.23	112	mg/kg dry	N/A	1.23	105	2.26	93	2	75-110	192	20	R,M1
QC Source Sample: CUD0086-49														
Barium	11D0349	28.2	117	mg/kg dry	N/A	0.592	152		106		75-125			
Cadmium	11D0349	0.183	117	mg/kg dry	N/A	1.18	118		101		75-125			
Chromium	11D0349	9.39	117	mg/kg dry	N/A	1.18	121		96		75-120			
Lead	11D0349	4.23	234	mg/kg dry	N/A	5.92	225		94		75-125			
Selenium	11D0349	<8.88	468	mg/kg dry	N/A	8.88	432		92		75-115			
Silver	11D0349	<1.18	117	mg/kg dry	N/A	1.18	126		108		75-110			
Volatile Organic Compounds														
QC Source Sample: CUC1693-01														
Acetone	11D0111	<10.0	20.0	ug/L	N/A	N/A	23.0	25.8	115	129	45-150	11	35	
Acrylonitrile	11D0111	<10.0	20.0	ug/L	N/A	N/A	19.2	18.8	96	94	45-145	2	35	
Benzene	11D0111	0.0100	20.0	ug/L	N/A	N/A	18.8	19.0	94	95	50-130	1	20	
Bromobenzene	11D0111	<1.00	20.0	ug/L	N/A	N/A	22.2	23.6	111	118	60-135	7	15	
Bromochloromethane	11D0111	<5.00	20.0	ug/L	N/A	N/A	20.6	19.3	103	96	55-145	6	25	
Bromodichloromethane	11D0111	<1.00	20.0	ug/L	N/A	N/A	21.0	21.0	105	105	50-130	0	15	
Bromoform	11D0111	<5.00	20.0	ug/L	N/A	N/A	21.8	22.3	109	112	30-125	2	25	
Bromomethane	11D0111	0.190	20.0	ug/L	N/A	N/A	16.4	15.4	81	76	30-130	6	35	CIN
2-Butanone (MEK)	11D0111	<10.0	20.0	ug/L	N/A	N/A	21.2	21.6	106	108	45-140	1	35	
n-Butylbenzene	11D0111	<1.00	20.0	ug/L	N/A	N/A	19.2	21.3	96	107	40-135	10	20	
sec-Butylbenzene	11D0111	0.0100	20.0	ug/L	N/A	N/A	19.3	21.0	97	105	40-135	8	20	
tert-Butylbenzene	11D0111	<1.00	20.0	ug/L	N/A	N/A	19.9	21.5	99	108	40-135	8	20	
Carbon disulfide	11D0111	0.140	20.0	ug/L	N/A	N/A	19.3	19.4	96	96	30-130	1	30	
Carbon Tetrachloride	11D0111	0.0600	20.0	ug/L	N/A	N/A	19.7	19.2	98	96	35-130	3	20	
Chlorobenzene	11D0111	0.0400	20.0	ug/L	N/A	N/A	20.5	21.5	102	107	60-130	5	15	
Chlorodibromomethane	11D0111	<5.00	20.0	ug/L	N/A	N/A	22.9	22.4	115	112	35-130	2	20	
Chloroethane	11D0111	<4.00	20.0	ug/L	N/A	N/A	18.9	16.5	95	82	40-135	14	20	
Chloroform	11D0111	<1.00	20.0	ug/L	N/A	N/A	18.9	19.2	94	96	55-125	2	15	
Chloromethane	11D0111	0.0100	20.0	ug/L	N/A	N/A	15.1	13.6	75	68	25-125	10	25	CIN
2-Chlorotoluene	11D0111	0.0100	20.0	ug/L	N/A	N/A	21.4	22.9	107	114	55-140	7	20	
4-Chlorotoluene	11D0111	0.0200	20.0	ug/L	N/A	N/A	21.6	22.6	108	113	50-140	5	20	
1,2-Dibromo-3-chloropropane	11D0111	<10.0	20.0	ug/L	N/A	N/A	21.0	21.8	105	109	35-130	3	30	
1,2-Dibromoethane (EDB)	11D0111	<10.0	20.0	ug/L	N/A	N/A	22.4	22.4	112	112	55-140	0	20	
Dibromomethane	11D0111	<1.00	20.0	ug/L	N/A	N/A	20.3	19.8	101	99	60-135	3	15	
1,2-Dichlorobenzene	11D0111	<1.00	20.0	ug/L	N/A	N/A	21.2	22.5	106	112	55-140	6	20	
1,3-Dichlorobenzene	11D0111	0.0200	20.0	ug/L	N/A	N/A	20.5	21.9	102	109	55-135	7	15	
1,4-Dichlorobenzene	11D0111	0.0200	20.0	ug/L	N/A	N/A	21.0	22.3	105	111	55-140	6	15	
Dichlorodifluoromethane	11D0111	<3.00	20.0	ug/L	N/A	N/A	14.4	14.7	72	74	15-130	2	25	
1,1-Dichloroethane	11D0111	<1.00	20.0	ug/L	N/A	N/A	17.1	16.3	85	81	50-130	5	25	
1,2-Dichloroethane	11D0111	<1.00	20.0	ug/L	N/A	N/A	20.1	19.9	101	100	55-140	1	15	
1,1-Dichloroethene	11D0111	<2.00	20.0	ug/L	N/A	N/A	17.9	18.8	90	94	35-135	5	30	
cis-1,2-Dichloroethene	11D0111	0.700	20.0	ug/L	N/A	N/A	19.2	19.2	92	93	45-135	0	20	
trans-1,2-Dichloroethene	11D0111	<1.00	20.0	ug/L	N/A	N/A	18.3	17.5	91	88	45-145	4	35	

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUC1693-01														
1,2-Dichloropropane	11D0111	<1.00	20.0	ug/L	N/A	N/A	18.9	19.4	95	97	55-130	2	15	
1,3-Dichloropropane	11D0111	<1.00	20.0	ug/L	N/A	N/A	22.1	21.5	110	108	60-135	3	15	
2,2-Dichloropropane	11D0111	<4.00	20.0	ug/L	N/A	N/A	16.9	7.45	85	37	20-120	78	35	CIN,R
1,1-Dichloropropene	11D0111	<1.00	20.0	ug/L	N/A	N/A	20.2	20.1	101	100	40-140	1	20	
cis-1,3-Dichloropropene	11D0111	0.0100	20.0	ug/L	N/A	N/A	19.8	18.5	99	93	25-120	7	20	
trans-1,3-Dichloropropene	11D0111	0.0100	20.0	ug/L	N/A	N/A	21.1	19.7	106	98	25-120	7	20	
Ethylbenzene	11D0111	0.0100	20.0	ug/L	N/A	N/A	20.3	20.9	101	104	45-135	3	20	
Hexachlorobutadiene	11D0111	<5.00	20.0	ug/L	N/A	N/A	19.6	19.5	98	98	40-135	1	30	
Hexane	11D0111	<1.00	20.0	ug/L	N/A	N/A	17.0	17.3	85	86	25-135	2	35	
Isopropylbenzene	11D0111	0.0100	20.0	ug/L	N/A	N/A	19.0	20.4	95	102	45-125	7	15	
p-Isopropyltoluene	11D0111	<1.00	20.0	ug/L	N/A	N/A	20.2	21.9	101	109	40-140	8	20	
Methylene Chloride	11D0111	0.100	20.0	ug/L	N/A	N/A	16.4	15.9	81	79	45-145	3	30	
Methyl tert-Butyl Ether	11D0111	<1.00	20.0	ug/L	N/A	N/A	19.7	16.8	98	84	40-135	16	25	C9
Naphthalene	11D0111	0.0400	20.0	ug/L	N/A	N/A	22.4	25.1	112	125	40-135	11	20	
n-Propylbenzene	11D0111	0.0100	20.0	ug/L	N/A	N/A	20.7	22.4	103	112	45-140	8	20	
Styrene	11D0111	0.0100	20.0	ug/L	N/A	N/A	21.6	21.9	108	110	40-135	1	20	
1,1,1,2-Tetrachloroethane	11D0111	<1.00	20.0	ug/L	N/A	N/A	23.3	22.8	117	114	50-130	2	20	
1,1,2,2-Tetrachloroethane	11D0111	<1.00	20.0	ug/L	N/A	N/A	22.7	23.7	113	119	55-140	5	20	CIN
Tetrachloroethene	11D0111	<1.00	20.0	ug/L	N/A	N/A	19.9	20.3	100	102	40-135	2	20	
Toluene	11D0111	0.0400	20.0	ug/L	N/A	N/A	17.8	18.1	89	90	45-135	2	20	
1,2,3-Trichlorobenzene	11D0111	0.0300	20.0	ug/L	N/A	N/A	22.2	24.8	111	124	50-140	11	25	
1,2,4-Trichlorobenzene	11D0111	0.0300	20.0	ug/L	N/A	N/A	20.2	21.8	101	109	40-135	8	25	
1,1,1-Trichloroethane	11D0111	<1.00	20.0	ug/L	N/A	N/A	20.0	19.5	100	97	40-125	3	20	
1,1,2-Trichloroethane	11D0111	<1.00	20.0	ug/L	N/A	N/A	21.5	21.8	108	109	60-130	1	15	
Trichloroethene	11D0111	<1.00	20.0	ug/L	N/A	N/A	18.8	18.8	94	94	50-130	0	20	
Trichlorofluoromethane	11D0111	<4.00	20.0	ug/L	N/A	N/A	20.5	20.4	102	102	40-145	0	25	
1,2,3-Trichloropropane	11D0111	<1.00	20.0	ug/L	N/A	N/A	23.5	23.6	118	118	55-150	0	20	
1,2,4-Trimethylbenzene	11D0111	0.0100	20.0	ug/L	N/A	N/A	21.2	22.4	106	112	45-140	6	20	
1,3,5-Trimethylbenzene	11D0111	<1.00	20.0	ug/L	N/A	N/A	20.9	22.2	105	111	45-140	6	20	
Vinyl chloride	11D0111	<1.00	20.0	ug/L	N/A	N/A	20.8	19.8	104	99	30-135	5	20	
Xylenes, total	11D0111	<3.00	60.0	ug/L	N/A	N/A	61.9	64.6	103	108	40-135	4	20	
Surrogate: Dibromofluoromethane	*11D0111*			ug/L					*100*	*98*	*75-120*			
Surrogate: Toluene-d8	*11D0111*			ug/L					*100*	*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0111*			ug/L					*101*	*101*	*80-110*			
QC Source Sample: CUD0090-12														
Acetone	11D0491	25.5	77.7	ug/kg dry	N/A	194	166	167	180	192	55-150	1	40	L1,M1,S2
Acrylonitrile	11D0491	<194	77.7	ug/kg dry	N/A	194	56.6	60.5	73	82	35-140	7	40	
Benzene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	63.7	66.3	82	90	40-135	4	40	
Bromobenzene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	65.9	62.7	85	85	30-125	5	40	
Bromochloromethane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	64.1	69.4	82	94	55-130	8	35	
Bromodichloromethane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	55.6	56.7	72	77	50-130	2	35	
Bromoform	11D0491	<38.9	77.7	ug/kg dry	N/A	38.9	44.9	46.4	58	63	35-135	3	40	
Bromomethane	11D0491	<77.7	77.7	ug/kg dry	N/A	77.7	73.1	74.7	94	101	40-135	2	35	
2-Butanone (MEK)	11D0491	<194	77.7	ug/kg dry	N/A	194	84.4	79.8	108	108	40-145	6	40	
n-Butylbenzene	11D0491	0.240	77.7	ug/kg dry	N/A	19.4	48.7	50.0	62	68	20-130	3	40	

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUD0090-12														
sec-Butylbenzene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	51.7	53.2	66	72	25-125	3	40	
tert-Butylbenzene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	52.8	54.1	68	73	25-125	2	40	
Carbon disulfide	11D0491	0.202	77.7	ug/kg dry	N/A	19.4	60.7	62.3	78	84	35-135	3	40	
Carbon Tetrachloride	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	53.4	58.2	69	79	45-130	9	35	
Chlorobenzene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	61.6	63.1	79	86	35-120	2	35	
Chlorodibromomethane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	50.2	54.9	65	75	45-130	9	40	
Chloroethane	11D0491	<77.7	77.7	ug/kg dry	N/A	77.7	80.0	74.3	103	101	45-145	7	35	
Chloroform	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	63.4	64.5	82	88	55-130	2	35	
Chloromethane	11D0491	<77.7	77.7	ug/kg dry	N/A	77.7	70.8	70.4	91	96	40-135	1	40	
2-Chlorotoluene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	60.2	60.6	77	82	25-125	1	40	
4-Chlorotoluene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	59.6	61.7	77	84	25-125	3	40	
1,2-Dibromo-3-chloropropane	11D0491	<194	77.7	ug/kg dry	N/A	194	30.2	29.7	39	40	35-140	2	40	
1,2-Dibromoethane (EDB)	11D0491	<194	77.7	ug/kg dry	N/A	194	55.9	58.4	72	79	45-140	4	35	
Dibromomethane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	58.9	62.4	76	85	50-135	6	35	
1,2-Dichlorobenzene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	54.1	55.6	70	76	25-120	3	40	
1,3-Dichlorobenzene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	54.7	55.0	70	75	25-125	1	40	
1,4-Dichlorobenzene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	56.5	56.7	73	77	20-125	0	40	
Dichlorodifluoromethane	11D0491	<58.3	77.7	ug/kg dry	N/A	58.3	63.6	63.9	82	87	35-135	1	35	
1,1-Dichloroethane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	64.5	65.8	83	89	50-135	2	35	
1,2-Dichloroethane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	58.0	59.8	75	81	50-140	3	40	
1,1-Dichloroethene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	78.9	82.2	102	112	45-145	4	35	
cis-1,2-Dichloroethene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	64.6	65.3	83	89	50-135	1	35	
trans-1,2-Dichloroethene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	62.1	64.6	80	88	45-135	4	40	
1,2-Dichloropropane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	64.0	66.4	82	90	50-130	4	35	
1,3-Dichloropropane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	63.5	65.9	82	89	45-140	4	40	
2,2-Dichloropropane	11D0491	<77.7	77.7	ug/kg dry	N/A	77.7	60.3	62.2	78	84	40-135	3	35	
1,1-Dichloropropene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	65.5	66.6	84	90	40-130	2	35	
cis-1,3-Dichloropropene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	58.2	60.2	75	82	35-115	3	40	
trans-1,3-Dichloropropene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	57.3	58.0	74	79	35-130	1	40	
Ethylbenzene	11D0491	0.367	77.7	ug/kg dry	N/A	19.4	61.8	63.3	79	85	30-125	2	40	
Hexachlorobutadiene	11D0491	<97.2	77.7	ug/kg dry	N/A	97.2	43.8	48.4	56	66	10-135	10	40	
Hexane	11D0491	<97.2	77.7	ug/kg dry	N/A	97.2	63.4	66.4	82	90	20-140	5	40	
Isopropylbenzene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	62.0	62.1	80	84	25-125	0	40	
p-Isopropyltoluene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	53.0	54.6	68	74	20-120	3	40	
Methylene Chloride	11D0491	4.32	77.7	ug/kg dry	N/A	194	80.0	82.6	97	106	35-145	3	35	
Methyl tert-Butyl Ether	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	64.4	65.6	83	89	55-130	2	40	
Naphthalene	11D0491	<97.2	77.7	ug/kg dry	N/A	97.2	43.4	41.7	56	57	15-130	4	40	
n-Propylbenzene	11D0491	0.291	77.7	ug/kg dry	N/A	19.4	61.0	62.0	78	84	20-125	2	40	
Styrene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	60.7	62.2	78	84	20-125	2	40	
1,1,1,2-Tetrachloroethane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	55.5	57.8	71	78	45-120	4	35	
1,1,2,2-Tetrachloroethane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	59.3	60.3	76	82	40-125	2	40	
Tetrachloroethene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	60.3	64.0	78	87	30-125	6	40	
Toluene	11D0491	0.910	77.7	ug/kg dry	N/A	19.4	67.8	67.6	86	91	35-130	0	40	
1,2,3-Trichlorobenzene	11D0491	0.620	77.7	ug/kg dry	N/A	97.2	45.1	41.9	57	56	10-130	7	40	
1,2,4-Trichlorobenzene	11D0491	0.493	77.7	ug/kg dry	N/A	97.2	45.6	43.1	58	58	15-135	6	40	

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUD0090-12														
1,1,1-Trichloroethane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	58.4	62.4	75	85	45-125	7	35	
1,1,2-Trichloroethane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	65.4	63.0	84	86	45-135	4	40	
Trichloroethene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	60.8	62.5	78	85	40-130	3	35	
Trichlorofluoromethane	11D0491	<77.7	77.7	ug/kg dry	N/A	77.7	67.3	68.8	86	93	45-145	2	35	
1,2,3-Trichloropropane	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	52.8	53.9	68	73	50-145	2	40	
1,2,4-Trimethylbenzene	11D0491	0.974	77.7	ug/kg dry	N/A	19.4	58.3	59.4	74	79	20-125	2	40	
1,3,5-Trimethylbenzene	11D0491	<19.4	77.7	ug/kg dry	N/A	19.4	61.7	62.4	79	85	20-130	1	35	
Vinyl chloride	11D0491	<58.3	77.7	ug/kg dry	N/A	58.3	71.8	73.0	92	99	40-140	2	40	
Xylenes, total	11D0491	1.86	233	ug/kg dry	N/A	58.3	198	202	84	91	30-130	2	40	
Surrogate: Dibromofluoromethane	*11D0491*			ug/L					*100*	*97*	*75-125*			
Surrogate: Toluene-d8	*11D0491*			ug/L					*98*	*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11D0491*			ug/L					*104*	*103*	*80-120*			
UST ANALYSIS PARAMETERS														
QC Source Sample: CUD0060-01														
Diesel	11D0059	5.16	65.4	mg/kg	N/A	10.0	57.6	55.2	80	77	45-130	4	30	
Surrogate: Octacosane	*11D0059*			mg/kg					*102*	*97*	*55-150*			
QC Source Sample: CUD0086-11														
Diesel	11D0082	<10.0	64.8	mg/kg	N/A	10.0	52.9	53.6	82	81	45-130	1	30	
Surrogate: Octacosane	*11D0082*			mg/kg					*83*	*88*	*55-150*			
QC Source Sample: CUD0086-31														
Motor Oil	11D0140	4.11	65.4	mg/kg	N/A	10.0	52.2	56.4	74	79	45-140	8	40	
Surrogate: Octacosane	*11D0140*			mg/kg					*136*	*138*	*55-150*			
QC Source Sample: CUD0086-48														
Motor Oil	11D0209	6.87	66.0	mg/kg	N/A	10.0	62.7	62.1	85	83	45-140	1	40	
Surrogate: Octacosane	*11D0209*			mg/kg					*152*	*155*	*55-150*			ZX
Polychlorinated Biphenyls by EPA Method 8082														
QC Source Sample: CUD0086-07														
PCB-1268	11D0081	<0.0592	0.195	mg/kg dry	N/A	0.0592	0.153	0.141	79	72	25-120	8	35	
Surrogate: Decachlorobiphenyl	*11D0081*			mg/kg dry					*82*	*84*	*30-125*			
Surrogate: Tetrachloro-meta-xylene	*11D0081*			mg/kg dry					*60*	*60*	*30-115*			
HEM														
QC Source Sample: CUD0086-01														
HEM (Oil & Grease)	109597	170	4540	mg/Kg dry	N/A	570	4530		96		75-125			
QC Source Sample: CUD0086-22														
HEM (Oil & Grease)	109897	220	4410	mg/Kg dry	N/A	550	4320		93		75-125			
QC Source Sample: CUD0086-40														
HEM (Oil & Grease)	110190	19000	4790	mg/Kg dry	N/A	600	26500		160		75-125			F

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101
James Peace

Work Order: CUD0086
Project: Electrolux Jefferson, IA
Project Number: 103-87305

Received: 04/01/11
Reported: 05/05/11 08:34

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
HEM														
QC Source Sample: CUD0086-01														
HEM (Oil & Grease)	109597	170	4530	mg/Kg dry	N/A	570	5120		109		75-125	12	20	
QC Source Sample: CUD0086-22														
HEM (Oil & Grease)	109897	220	4360	mg/Kg dry	N/A	550	9670		217		75-125	76	20	F
QC Source Sample: CUD0086-40														
HEM (Oil & Grease)	110190	19000	4820	mg/Kg dry	N/A	600	29900		229		75-125	12	20	F

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CERTIFICATION SUMMARY

TestAmerica Cedar Falls

Method	Matrix	Nelac	Iowa
OA-1	Solid/Soil	X	X
OA-2 - 8015B	Solid/Soil	X	X
SM 2540 G	Solid/Soil		X
SW 6010B	Solid/Soil	X	X
SW 7060A	Solid/Soil	X	X
SW 7471A	Solid/Soil	X	X
SW 8082	Solid/Soil	X	X
SW 8260B	Solid/Soil	X	X
SW 8260B	Water - NonPotable	X	X
SW	Water - NonPotable		

Subcontracted Laboratories

TestAmerica Chicago Iowa Cert #82

2417 Bond Street - University Park, IL 60484

Method Performed: 9071B OG Dry

Samples: CUD0086-01, CUD0086-02, CUD0086-03, CUD0086-04, CUD0086-05, CUD0086-06, CUD0086-07, CUD0086-08, CUD0086-09, CUD0086-10, CUD0086-11, CUD0086-12, CUD0086-13, CUD0086-14, CUD0086-15, CUD0086-16, CUD0086-17, CUD0086-18, CUD0086-19, CUD0086-20, CUD0086-21, CUD0086-22, CUD0086-23, CUD0086-24, CUD0086-25, CUD0086-26, CUD0086-27, CUD0086-28, CUD0086-29, CUD0086-30, CUD0086-31, CUD0086-32, CUD0086-33, CUD0086-34, CUD0086-35, CUD0086-36, CUD0086-37, CUD0086-38, CUD0086-39, CUD0086-40, CUD0086-41, CUD0086-42, CUD0086-43, CUD0086-44, CUD0086-45, CUD0086-46, CUD0086-47, CUD0086-48, CUD0086-49, CUD0086-50

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Termperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF-FSS-01.

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TestAmerica Cedar Falls
Derrick Klinkenberg
Organics Manager

GOLDER ASSOCIATES - MANCHESTER, NH 670 North Commercial Street, Suite 103 Manchester, NH 03101 James Peace	Work Order: CUD0086 Project: Electrolux Jefferson, IA Project Number: 103-87305	Received: 04/01/11 Reported: 05/05/11 08:34	

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
Ba	Compound was found in the blank and sample.
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
C9	Calibration Verification recovery was outside the method control limits for this analyte. The LCS for this analyte met CCV acceptance criteria, and was used to validate the batch.
CIN	The % RSD for this compound was above 15%. The average % RSD for all compounds in the calibration met the 15% criteria specified in EPA methods 8260B/8270C.
F	MS or MSD exceeds the control limits
H	Sample analysis performed past method-specified holding time.
ICV	ICV recovery was above control limits. Analyte not detected, data not impacted.
IE	Elevated reporting limit due to interelement interference.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the control limits. Analyte not detected, data not impacted.
L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was outside control limits.
M1	The MS and/or MSD were outside control limits.
Q	Poor chromatographic match to standard.
R	Sample duplicate RPD exceeded the laboratory control limit.
R7	LCS/LCSD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
RL1	Reporting limit raised due to sample matrix effects.
S2	Compound is a common lab solvent and contaminant.
ZX	Due to sample matrix effects, the surrogate recovery was outside the control limits.

ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.

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Cedar Falls Division
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Cedar Falls, IA 50613

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Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Golder Associates, Inc Client #: _____
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Project Manager: James Peace
Email Address: jim_peace@golder.com
Telephone Number: 603.668.0880 Fax: 603.668.1199
Sampler Name: (Print Name) Joshua Janzen
Sampler Signature:

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON State: IOWA
Report To: James Peace
Invoice To: James Peace
Quote #: _____ PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix (SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other)	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify) $NaHSO_4$	Analyze For: VOCs	OXY/OXY-2	O&G	RCRA METALS	TS	PCB					REMARKS
MW-10 2.5-5	3/29/11	0930	G		S					1	3	2	X	X	X	X	X						
MW-11 2.5-5	3/29/11	1140	G		S					1	3	2	X	X	X	X	X						
MW-12 1-5	3/29/11	1320	G		S					1	3	2	X	X	X	X	X						
MW-13 2.5-5	3/29/11	1430	G		S					1	3	2	X	X	X	X	X						
MW-14 2.5-5	3/29/11	1540	G		S					1	3	2	X	X	X	X	X						
MW-15 0-2.5	3/29/11	1655	G		S					1	3	2	X	X	X	X	X						
MW-15 2.5-5	3/29/11	1700	G		S					1	4	2	X	X	X	X	X	X					
MW-15 5-7.5	3/29/11	1720	G		S					1	3	2	X	X	X	X	X						
MW-15 7.5-10	3/29/11	1725	G		S					1	3	2	X	X	X	X	X						
MW-15 10-13	3/29/11	1735	G		S					1	3	2	X	X	X	X	X						

Special Instructions:

LABORATORY COMMENTS:

	Date:	Time:		Date:	Time:
Relinquished By:	3/30/11	1315	Received By:	4/1/11	931
Relinquished By:			Received By:		
Relinquished By:			Received By:		

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Cedar Falls, IA 50613

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Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Golder Associates, Inc. Client #: _____
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire, 03101
Project Manager: James Peace
Email Address: jim-peace@golder.com
Telephone Number: 603.668.0880 Fax: 603.668.1199
Sampler Name: (Print Name) Joshua Janzen
Sampler Signature:

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON State: IOWA
Report To: James Peace
Invoice To: James Peace
Quote #: _____ PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify, Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify) $NaHSO_4$	Analyze For: VOCs	OA-1/OA-2	O&G	RCRA Metals	TS	PCB					REMARKS
MW-16 0-2.5	3/30/11	0850	G		S					1	3	2	X	X	X	X	X						
MW-16 2.5-5	3/30/11	0900	G		S					1	4	2	X	X	X	X	X	X					
MW-16 5-7.5	3/30/11	0910	G		S					1	3	2	X	X	X	X	X						
MW-16 7.5-10	3/30/11	0920	G		S					1	3	2	X	X	X	X	X						
MW-16 10-13	3/30/11	0930	G		S					1	3	2	X	X	X	X	X						
MW-17 0-2.5	3/30/11	1005	G		S					1	3	2	X	X	X	X	X						
MW-17 2.5-5	3/30/11	1015	G		S					1	3	2	X	X	X	X	X						
MW-17 5-7.5	3/30/11	1020	G		S					1	3	2	X	X	X	X	X						
MW-17 7.5-10	3/30/11	1025	G		S					1	4	2	X	X	X	X	X	X					
MW-17 10-13	3/30/11	1030	G		S					1	3	2	X	X	X	X	X						

Special Instructions:

LABORATORY COMMENTS:

	Date:	Time:		Date:	Time:
Relinquished By:	3/31/11	1315	Received By:	4/1/11	931
Relinquished By:			Received By:		
Relinquished By:			Received By:		

TAL-0033 (0708)

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Cedar Falls, IA 50613

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Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Golder Associates, Inc
Client #: _____
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Project Manager: James Peace
Email Address: jim_peace@golder.com
Telephone Number: 603.668.0880
Fax: 603.668.1199
Sampler Name: (Print Name) Joshua Janzen
Sampler Signature:

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON
State: IOWA
Report To: James Peace
Invoice To: James Peace
Quote #: _____
PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix (SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other)	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify) $Na_2S_2O_3$	VOCs	OA-1/OA-2	O&G	RCRA METALS	TS	PCB					REMARKS
MW-18 0-2.5	3/30/11	1130	G							1	3	2	X	X	X	X	X						
MW-18 2.5-5	3/30/11	1135	G							1	4	2	X	X	X	X	X	X					
MW-18 5-7.5	3/30/11	1145	G							1	3	2	X	X	X	X	X						
MW-18 7.5-10	3/30/11	1150	G							1	3	2	X	X	X	X	X						
MW-18 10-10	3/30/11	1200	G							1	3	2	X	X	X	X	X						
MW-19 0-2.5	3/30/11	1310	G							1	3	2	X	X	X	X	X						
MW-19 2.5-5	3/30/11	1320	G							1	3	2	X	X	X	X	X						
MW-19 5-10	3/30/11	1325	G							1	3	2	X	X	X	X	X						
MW-19 10-12	3/30/11	1335	G							1	4	2	X	X	X	X	X	X					
MW-20 0-2.5	3/30/11	1415	G							1	3	2	X	X	X	X	X						

Special Instructions:

LABORATORY COMMENTS:

Relinquished By:	3/31/11 Date:	1315 Time:	Received By:	Date: 4/1/11	Time: 931
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

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Cedar Falls, IA 50613

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Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Golder Associates, Inc. Client #: _____
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Project Manager: James Peace
Email Address: jim_peace@golder.com
Telephone Number: 603.668.0880 Fax: 603.668.1199
Sampler Name: (Print Name) Joshua Janzen
Sampler Signature:

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON State: IOWA
Report To: James Peace
Invoice To: James Peace
Quote #: _____ PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other
Preservation & # of Containers: HNO_3, HCl, NaOH, H_2SO_4, Methanol, None, Other (Specify) $Na_2H_2SO_4$
Analyze For: VOCs, OA-1/OA-2, O&G, RCRA Metals, TS, PCB

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify) $Na_2H_2SO_4$	VOCs	OA-1/OA-2	O&G	RCRA Metals	TS	PCB					REMARKS
MW-20 2.5-5	3/30/11	1425	G		S					1	3	2	X	X	X	X	X						
MW-20 5-7.5	3/30/11	1435	G		S					1	4	2	X	X	X	X	X	X					
MW-20 7.5-10	3/30/11	1440	G		S					1	3	2	X	X	X	X	X						
MW-21A 0-2.5	3/30/11	1530	G		S					1	3	2	X	X	X	X	X						
MW-21A 2.5-5	3/30/11	1546	G		S					1	4	2	X	X	X	X	X	X					
MW-21A 5-7.5	3/30/11	1545	G		S					1	3	2	X	X	X	X	X						
MW-21A 7.5-10	3/30/11	1550	G		S					1	3	2	X	X	X	X	X						
MW-21 0-2.5	3/30/11	1615	G		S					1	3	2	X	X	X	X	X						
MW-21 2.5-5	3/30/11	1620	G		S					1	3	2	X	X	X	X	X						
MW-21 5-10	3/30/11	1630	G		S					1	4	2	X	X	X	X	X	X					

Special Instructions:

LABORATORY COMMENTS:

	Date:	Time:		Date:	Time:
Relinquished By:	3/31/11	1315	Received By: Melanie Sheehan	4/1/11	931
Relinquished By:			Received By:		
Relinquished By:			Received By:		

TAL-0033 (0708)

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Cedar Falls, IA 50613

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Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Golder Associates, Inc
Client #: _____
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Project Manager: James Peace
Email Address: jim_peace@golder.com
Telephone Number: 603.668.0880
Fax: 603.668.1199
Sampler Name: (Print Name) Joshua Junzer
Sampler Signature: [signature]

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON
State: IOWA
Report To: James Peace
Invoice To: James Peace
Quote #: _____
PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other
Preservation & # of Containers: HNO_3, HCl, NaOH, H_2SO_4, Methanol, None, Other (Specify Na_2SO_4)
Analyze For: VOCs, 8260-1/8260-2, O&G, RCRA METALS, TS, PCB

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Na_2SO_4)	VOCs	8260-1/8260-2	O&G	RCRA METALS	TS	PCB	REMARKS
MW-21 10-12	3/30/11	1635	G		S					1	3	2							
MW-22 0-2.5	3/30/11	1720	G		S					1	3	2							
MW-22 2.5-5	3/30/11	1725	G		S					1	3	2							
MW-22 5-10	3/30/11	1735	G		S					1	4	2						X	
MW-22 10-12	3/30/11	1740	G		S					1	3	2							
MW-23 0-2.5	3/30/11	1815	G		S					1	3	2							
MW-23 2.5-5	3/30/11	1820	G		S					1	3	2							
MW-23 5-7.5	3/30/11	1830	G		S					1	3	2							
MW-23 7.5-10	3/30/11	1835	G		S					1	4	2						X	
MW-23 10-12	3/30/11	1840	G		S					1	3	2							

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

Special Instructions:

SH 4/1/11

LABORATORY COMMENTS:

Relinquished By: [signature]	Date: 3/31/11	Time: 1315	Received By: [signature]	Date: 4/1/11	Time: 931
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

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704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Golder Associates, Inc
Client #: _____
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Project Manager: James Pence
Email Address: jim-pence@golder.com
Telephone Number: 603.668.0880
Fax: 603.668.1199
Sampler Name: (Print Name) Joshua Janzen
Sampler Signature:

Project Name: ELECTROLUX JEFFERSON
Project #: 10387305
Site/Location ID: JEFFERSON
State: IOWA
Report To: James Pence
Invoice To: James Pence
Quote #: _____
PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix (SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other)	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: VOCs										REMARKS
TRIPBLANK	3/25/14	–	–		DW		3						X										
TRIPBLANK	3/30/14	–	–		DW		3						X										

Special Instructions:

LABORATORY COMMENTS:

	Date:	Time:		Date:	Time:
Relinquished By:	3/31/11	1315	Received By:	4/1/11	931
Relinquished By:			Received By:		
Relinquished By:			Received By:		

TAL-0033 (0708)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Assoc. Project: ELECTROLUX

City: _____

Date: 4-1-11 Receiver's Initials: CH Time (Delivered): 9:31

Temperature Record:

Cooler ID# (If Applicable) OH2

0.3 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☐ IR - 61997671 'B'
☑ IR - 90876942 'C'
☐ IR - 61854108
☐ 22126775

Courier:

☐ UPS
☑ FedEx
☐ FedEx Ground
☐ US Postal Service
☐ Spee-Dee
☐ TA Courier
☐ TA Field Services
☐ Client
☐ Other

Custody seals present?
☑ Yes

Custody seals intact?
☐ Yes ☐ No

☐ Non-Conformance report started

Soils

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ Temperature not taken:

_____

***Refer to SOP CF-SS-01 for Temperature Criteria**

H:\QA Folder\QA Forms & Log Book pgs\Cooler Receipt rev15.doc

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Sample Receipt and Temperature Log Form

Client: Golder Assoc. Project: ELECTROLUX

City: _____

Date: 4-1-11 Receiver's Initials: CH Time (Delivered): 9:31

Temperature Record:

Cooler ID# (If Applicable) OH4

2.7 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☐ IR - 61997671 'B'

☑ IR - 90876942 'C'

☐ IR - 61854108

☐ 22126775

Courier:

☐ UPS

☑ FedEx

☐ FedEx Ground

☐ US Postal Service

☐ Spee-Dee

☐ TA Courier

☐ TA Field Services

☐ Client

☐ Other

Custody seals present?

☑ Yes

Custody seals intact?

☐ Yes ☐ No

☐ Non-Conformance report started

Soils

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ Temperature not taken:

_____

***Refer to SOP CF-SS-01 for Temperature Criteria**

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Assoc. Project: ELECTROLUX

City:

Date: 4-1-11 Receiver's Initials: CH Time (Delivered): 9:31

Temperature Record:

Cooler ID# (If Applicable) OH3

0.1 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☐ IR - 61997671 'B'

☑ IR - 90876942 'C'

☐ IR - 61854108

☐ 22126775

Courier:

☐ UPS

☑ FedEx

☐ FedEx Ground

☐ US Postal Service

☐ Spee-Dee

☐ TA Courier

☐ TA Field Services

☐ Client

☐ Other

Custody seals present?

☑ Yes

Custody seals intact?

☑ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ Temperature not taken:

***Refer to SOP CF-SS-01 for Temperature Criteria**

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704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Godder Assoc. Project: ELECTROLUX

City: _____

Date: 4-1-11 Receiver's Initials: CH Time (Delivered): 9:31

Temperature Record:

Cooler ID# (If Applicable) OH-1

1.3 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☐ IR - 61997671 'B'

☑ IR - 90876942 'C'

☐ IR - 61854108

☐ 22126775

Courier:

☐ UPS

☑ FedEx

☐ FedEx Ground

☐ US Postal Service

☐ Spee-Dee

☐ TA Courier

☐ TA Field Services

☐ Client

☐ Other

Custody seals present?

☑ Yes

Custody seals intact?

☑ Yes ☐ No

☐ Non-Conformance report started

Soils

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ Temperature not taken:

_____

***Refer to SOP CF-SS-01 for Temperature Criteria**

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800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Assoc. Project: ELECTROLUX

City: _____

Date: 4-1-11 Receiver's Initials: CH Time (Delivered): 9:31

Temperature Record:

Cooler ID# (If Applicable) L-H

2.0 °C / On Ice

Thermometer:

- [ ] IR - 61997671 'B'
- [x] IR - 90876942 'C'
- [ ] IR - 61854108
- [ ] 22126775

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other _____

- [ ] Temp Blank → Trip Blank vial
- [ ] Temperature out of compliance

Custody seals present?
- [x] Yes

Custody seals intact?
- [x] Yes
- [ ] No

- [ ] Non-Conformance report started

all vials

Exceptions Noted

- [ ] Sample(s) not received in a cooler.
- [ ] Samples(s) received same day of sampling.
- [ ] Evidence of a chilling process
- [ ] Temperature not taken: _____

***Refer to SOP CF-SS-01 for Temperature Criteria**

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TestAmerica

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704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: GOLDER ASSOC. Project: ELECTROLUX

City: _____

Date: 4-1-11 Receiver's Initials: CH Time (Delivered): 9:31

Temperature Record:

Cooler ID# (If Applicable) L6

0.6 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☐ IR - 61997671 'B'

☑ IR - 90876942 'C'

☐ IR - 61854108

☐ 22126775

Courier:

☐ UPS ☐ TA Courier

☑ FedEx ☐ TA Field Services

☐ FedEx Ground ☐ Client

☐ US Postal Service ☐ Other

☐ Spee-Dee _____

Custody seals present?

☑ Yes

Custody seals intact?

☑ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ Temperature not taken: _____

MW 17-0.2.5 soil jars
MW 21-0.2.5 soil jars.
MW 21-10-12 soil jars

Vials
1 set TB.

*Refer to SOP CF-SS-01 for Temperature Criteria

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: 800-750-2401

TestAmerica Job ID: CVE0462
Client Project/Site: 103-87305
Client Project Description: Electrolux Jefferson, IA

For:
GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101

Attn: James Peace

Authorized for release by:
5/18/2012 5:39:30 PM
Shawn M. Hayes
Project Manager
shawn.hayes@testamericainc.com

Designee for

Derrick Klinkenberg
Organics Manager
derrick.klinkenberg@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Job ID: CVE0462

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-46116-1

Comments
No additional comments.

Receipt
The samples were received on 5/8/2012 11:07 AM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 3.1º C.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Sample Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
CVE0462-01	SB-14(MIP-21) 07-09	Soil	05/02/12 08:30	05/04/12 09:30
CVE0462-02	SB-14(MIP-21) 12-14	Soil	05/02/12 08:45	05/04/12 09:30
CVE0462-03	SB-14(MIP-21) 23-25	Soil	05/02/12 09:05	05/04/12 09:30
CVE0462-04	SB-15(MIP-3) 13-15	Soil	05/02/12 09:50	05/04/12 09:30
CVE0462-05	SB-15(MIP-3) 19-21	Soil	05/02/12 10:10	05/04/12 09:30
CVE0462-06	SB-16(MIP-05) 12-14	Soil	05/02/12 10:45	05/04/12 09:30
CVE0462-07	Duplicate-4	Soil	05/02/12 00:00	05/04/12 09:30
CVE0462-08	SB-16(MIP-05) 18-20	Soil	05/02/12 11:00	05/04/12 09:30
CVE0462-09	SB-16(MIP-05) 24-26	Soil	05/02/12 11:15	05/04/12 09:30
CVE0462-10	SB-17(MIP-20) 02-04	Soil	05/02/12 11:50	05/04/12 09:30
CVE0462-11	SB-17(MIP-20) 10-12	Soil	05/02/12 12:00	05/04/12 09:30
CVE0462-12	Duplicate-5	Soil	05/02/12 00:00	05/04/12 09:30
CVE0462-13	Trip Blank	Water	05/02/12 00:00	05/04/12 09:30

Detection Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-14(MIP-21) 07-09 — Lab Sample ID: CVE0462-01

No Detections

Client Sample ID: SB-14(MIP-21) 12-14 — Lab Sample ID: CVE0462-02

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene - RE1	106000		4570		ug/kg dry	1000	☼	SW 8260B	Total

Client Sample ID: SB-14(MIP-21) 23-25 — Lab Sample ID: CVE0462-03

No Detections

Client Sample ID: SB-15(MIP-3) 13-15 — Lab Sample ID: CVE0462-04

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	20400		479		ug/kg dry	100	☼	SW 8260B	Total
Ethylbenzene	925		479		ug/kg dry	100	☼	SW 8260B	Total
Tetrachloroethene	1260		479		ug/kg dry	100	☼	SW 8260B	Total
1,1,1-Trichloroethane	35100		479		ug/kg dry	100	☼	SW 8260B	Total
Xylenes, total	3510		1440		ug/kg dry	100	☼	SW 8260B	Total
Trichloroethene - RE1	215000		4790		ug/kg dry	1000	☼	SW 8260B	Total

Client Sample ID: SB-15(MIP-3) 19-21 — Lab Sample ID: CVE0462-05

No Detections

Client Sample ID: SB-16(MIP-05) 12-14 — Lab Sample ID: CVE0462-06

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	140	J B	550	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: Duplicate-4 — Lab Sample ID: CVE0462-07

No Detections

Client Sample ID: SB-16(MIP-05) 18-20 — Lab Sample ID: CVE0462-08

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	180	J B	560	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-16(MIP-05) 24-26 — Lab Sample ID: CVE0462-09

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	140	J B	570	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-17(MIP-20) 02-04 — Lab Sample ID: CVE0462-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Extractable Hydrocarbons	11.4		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	11.4	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
Mercury	0.0234		0.0221		mg/kg dry	1.00	☼	SW 7471B	Total
Barium	176		0.624		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	23.4		1.25		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	11.8		6.24		mg/kg dry	1.00	☼	SW 6010C	Total
Silver	3.10		1.25		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	140	J B	600	110	mg/Kg	1	☼	9071B	Total/NA

Detection Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-17(MIP-20) 10-12 — Lab Sample ID: CVE0462-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	110	J B	560	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: Duplicate-5 — Lab Sample ID: CVE0462-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	140	J B	580	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: CVE0462-13

No Detections

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-14(MIP-21) 07-09

Date Collected: 05/02/12 08:30
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-01

Matrix: Soil
Percent Solids: 85.4

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4830		4830		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Benzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Bromobenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Bromochloromethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Bromodichloromethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Bromoform	<967		967		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Bromomethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
2-Butanone (MEK)	<4830		4830		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
n-Butylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
sec-Butylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
tert-Butylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Carbon disulfide	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Carbon Tetrachloride	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Chlorobenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Chlorodibromomethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Chloroethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Chloroform	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Chloromethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
2-Chlorotoluene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
4-Chlorotoluene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,2-Dibromo-3-chloropropane	<4830		4830		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,2-Dibromoethane (EDB)	<4830		4830		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Dibromomethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,2-Dichlorobenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,3-Dichlorobenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,4-Dichlorobenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Dichlorodifluoromethane	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,1-Dichloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,2-Dichloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,1-Dichloroethene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
cis-1,2-Dichloroethene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
trans-1,2-Dichloroethene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,2-Dichloropropane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,3-Dichloropropane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
2,2-Dichloropropane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,1-Dichloropropene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
cis-1,3-Dichloropropene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
trans-1,3-Dichloropropene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Ethylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Hexachlorobutadiene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Hexane	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Isopropylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
p-Isopropyltoluene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Methylene Chloride	<4830		4830		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Methyl tert-Butyl Ether	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Naphthalene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
n-Propylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Styrene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,1,1,2-Tetrachloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,1,2,2-Tetrachloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Tetrachloroethene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-14(MIP-21) 07-09

Date Collected: 05/02/12 08:30
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-01

Matrix: Soil
Percent Solids: 85.4

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,2,3-Trichlorobenzene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,2,4-Trichlorobenzene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,1,1-Trichloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,1,2-Trichloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Trichloroethene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Trichlorofluoromethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,2,3-Trichloropropane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,2,4-Trimethylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
1,3,5-Trimethylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Vinyl chloride	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100
Xylenes, total	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:01	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 08:01*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 08:01*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 08:01*	*100*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**85.4**		0.1		%		05/04/12 18:24	05/04/12 18:24	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-14(MIP-21) 12-14

Lab Sample ID: CVE0462-02

Date Collected: 05/02/12 08:45
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 87.1

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4570		4570		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Benzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Bromobenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Bromochloromethane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Bromodichloromethane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Bromoform	<913		913		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Bromomethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
2-Butanone (MEK)	<4570		4570		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
n-Butylbenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
sec-Butylbenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
tert-Butylbenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Carbon disulfide	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Carbon Tetrachloride	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Chlorobenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Chlorodibromomethane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Chloroethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Chloroform	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Chloromethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
2-Chlorotoluene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
4-Chlorotoluene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,2-Dibromo-3-chloropropane	<4570		4570		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,2-Dibromoethane (EDB)	<4570		4570		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Dibromomethane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,2-Dichlorobenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,3-Dichlorobenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,4-Dichlorobenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Dichlorodifluoromethane	<1370		1370		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,1-Dichloroethane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,2-Dichloroethane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,1-Dichloroethene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
cis-1,2-Dichloroethene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
trans-1,2-Dichloroethene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,2-Dichloropropane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,3-Dichloropropane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
2,2-Dichloropropane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,1-Dichloropropene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
cis-1,3-Dichloropropene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
trans-1,3-Dichloropropene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Ethylbenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Hexachlorobutadiene	<2280		2280		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Hexane	<2280		2280		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Isopropylbenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
p-Isopropyltoluene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Methylene Chloride	<4570		4570		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Methyl tert-Butyl Ether	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Naphthalene	<2280		2280		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
n-Propylbenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Styrene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,1,1,2-Tetrachloroethane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,1,2,2-Tetrachloroethane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Tetrachloroethene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-14(MIP-21) 12-14

Date Collected: 05/02/12 08:45
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-02

Matrix: Soil
Percent Solids: 87.1

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,2,3-Trichlorobenzene	<2280		2280		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,2,4-Trichlorobenzene	<2280		2280		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,1,1-Trichloroethane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,1,2-Trichloroethane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Trichlorofluoromethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,2,3-Trichloropropane	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,2,4-Trimethylbenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
1,3,5-Trimethylbenzene	<457		457		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Vinyl chloride	<1370		1370		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100
Xylenes, total	<1370		1370		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:24	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*75 - 125*	*05/12/12 00:00*	*05/12/12 08:24*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 08:24*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 08:24*	*100*

Method: SW 8260B - Volatile Organic Compounds - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**106000**		4570		ug/kg dry	☼	05/15/12 00:00	05/15/12 16:55	1000

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.1**		0.1		%		05/04/12 18:24	05/04/12 18:24	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-14(MIP-21) 23-25

Lab Sample ID: CVE0462-03

Date Collected: 05/02/12 09:05
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5270		5270		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Benzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Bromobenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Bromochloromethane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Bromodichloromethane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Bromoform	<1050		1050		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Bromomethane	<2110		2110		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
2-Butanone (MEK)	<5270		5270		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
n-Butylbenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
sec-Butylbenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
tert-Butylbenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Carbon disulfide	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Carbon Tetrachloride	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Chlorobenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Chlorodibromomethane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Chloroethane	<2110		2110		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Chloroform	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Chloromethane	<2110		2110		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
2-Chlorotoluene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
4-Chlorotoluene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,2-Dibromo-3-chloropropane	<5270		5270		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,2-Dibromoethane (EDB)	<5270		5270		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Dibromomethane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,2-Dichlorobenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,3-Dichlorobenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,4-Dichlorobenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Dichlorodifluoromethane	<1580		1580		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,1-Dichloroethane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,2-Dichloroethane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,1-Dichloroethene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
cis-1,2-Dichloroethene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
trans-1,2-Dichloroethene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,2-Dichloropropane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,3-Dichloropropane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
2,2-Dichloropropane	<2110		2110		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,1-Dichloropropene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
cis-1,3-Dichloropropene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
trans-1,3-Dichloropropene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Ethylbenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Hexachlorobutadiene	<2640		2640		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Hexane	<2640		2640		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Isopropylbenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
p-Isopropyltoluene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Methylene Chloride	<5270		5270		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Methyl tert-Butyl Ether	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Naphthalene	<2640		2640		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
n-Propylbenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Styrene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,1,1,2-Tetrachloroethane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,1,2,2-Tetrachloroethane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Tetrachloroethene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-14(MIP-21) 23-25

Lab Sample ID: CVE0462-03

Date Collected: 05/02/12 09:05
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,2,3-Trichlorobenzene	<2640		2640		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,2,4-Trichlorobenzene	<2640		2640		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,1,1-Trichloroethane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,1,2-Trichloroethane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Trichloroethene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Trichlorofluoromethane	<2110		2110		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,2,3-Trichloropropane	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,2,4-Trimethylbenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
1,3,5-Trimethylbenzene	<527		527		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Vinyl chloride	<1580		1580		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100
Xylenes, total	<1580		1580		ug/kg dry	☼	05/12/12 00:00	05/12/12 08:47	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*75 - 125*	*05/12/12 00:00*	*05/12/12 08:47*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 08:47*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 08:47*	*100*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.0**		0.1		%		05/04/12 18:24	05/04/12 18:24	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-15(MIP-3) 13-15

Lab Sample ID: CVE0462-04

Date Collected: 05/02/12 09:50
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86.3

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4790		4790		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Benzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Bromobenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Bromochloromethane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Bromodichloromethane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Bromoform	<958		958		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Bromomethane	<1920		1920		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
2-Butanone (MEK)	<4790		4790		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
n-Butylbenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
sec-Butylbenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
tert-Butylbenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Carbon disulfide	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Carbon Tetrachloride	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Chlorobenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Chlorodibromomethane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Chloroethane	<1920		1920		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Chloroform	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Chloromethane	<1920		1920		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
2-Chlorotoluene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
4-Chlorotoluene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,2-Dibromo-3-chloropropane	<4790		4790		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,2-Dibromoethane (EDB)	<4790		4790		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Dibromomethane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,2-Dichlorobenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,3-Dichlorobenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,4-Dichlorobenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Dichlorodifluoromethane	<1440		1440		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,1-Dichloroethane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,2-Dichloroethane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,1-Dichloroethene	**20400**		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
cis-1,2-Dichloroethene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
trans-1,2-Dichloroethene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,2-Dichloropropane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,3-Dichloropropane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
2,2-Dichloropropane	<1920		1920		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,1-Dichloropropene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
cis-1,3-Dichloropropene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
trans-1,3-Dichloropropene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Ethylbenzene	**925**		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Hexachlorobutadiene	<2400		2400		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Hexane	<2400		2400		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Isopropylbenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
p-Isopropyltoluene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Methylene Chloride	<4790		4790		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Methyl tert-Butyl Ether	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Naphthalene	<2400		2400		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
n-Propylbenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Styrene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,1,1,2-Tetrachloroethane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,1,2,2-Tetrachloroethane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Tetrachloroethene	**1260**		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-15(MIP-3) 13-15

Lab Sample ID: CVE0462-04

Date Collected: 05/02/12 09:50
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86.3

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,2,3-Trichlorobenzene	<2400		2400		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,2,4-Trichlorobenzene	<2400		2400		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,1,1-Trichloroethane	**35100**		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,1,2-Trichloroethane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Trichlorofluoromethane	<1920		1920		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,2,3-Trichloropropane	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,2,4-Trimethylbenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
1,3,5-Trimethylbenzene	<479		479		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Vinyl chloride	<1440		1440		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100
Xylenes, total	**3510**		1440		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:10	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99*		*75 - 125*	*05/12/12 00:00*	*05/12/12 09:10*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 09:10*	*100*
4-Bromofluorobenzene	*98*		*80 - 120*	*05/12/12 00:00*	*05/12/12 09:10*	*100*

Method: SW 8260B - Volatile Organic Compounds - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**215000**		4790		ug/kg dry	☼	05/15/12 00:00	05/15/12 17:26	1000

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.3**		0.1		%		05/04/12 18:24	05/04/12 18:24	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-15(MIP-3) 19-21

Lab Sample ID: CVE0462-05

Date Collected: 05/02/12 10:10
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 87.4

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4290		4290		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Benzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Bromobenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Bromochloromethane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Bromodichloromethane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Bromoform	<858		858		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Bromomethane	<1720		1720		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
2-Butanone (MEK)	<4290		4290		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
n-Butylbenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
sec-Butylbenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
tert-Butylbenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Carbon disulfide	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Carbon Tetrachloride	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Chlorobenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Chlorodibromomethane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Chloroethane	<1720		1720		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Chloroform	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Chloromethane	<1720		1720		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
2-Chlorotoluene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
4-Chlorotoluene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,2-Dibromo-3-chloropropane	<4290		4290		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,2-Dibromoethane (EDB)	<4290		4290		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Dibromomethane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,2-Dichlorobenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,3-Dichlorobenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,4-Dichlorobenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Dichlorodifluoromethane	<1290		1290		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,1-Dichloroethane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,2-Dichloroethane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,1-Dichloroethene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
cis-1,2-Dichloroethene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
trans-1,2-Dichloroethene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,2-Dichloropropane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,3-Dichloropropane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
2,2-Dichloropropane	<1720		1720		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,1-Dichloropropene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
cis-1,3-Dichloropropene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
trans-1,3-Dichloropropene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Ethylbenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Hexachlorobutadiene	<2140		2140		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Hexane	<2140		2140		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Isopropylbenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
p-Isopropyltoluene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Methylene Chloride	<4290		4290		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Methyl tert-Butyl Ether	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Naphthalene	<2140		2140		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
n-Propylbenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Styrene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,1,1,2-Tetrachloroethane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,1,2,2-Tetrachloroethane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Tetrachloroethene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-15(MIP-3) 19-21

Lab Sample ID: CVE0462-05

Date Collected: 05/02/12 10:10
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 87.4

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,2,3-Trichlorobenzene	<2140		2140		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,2,4-Trichlorobenzene	<2140		2140		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,1,1-Trichloroethane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,1,2-Trichloroethane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Trichloroethene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Trichlorofluoromethane	<1720		1720		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,2,3-Trichloropropane	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,2,4-Trimethylbenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
1,3,5-Trimethylbenzene	<429		429		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Vinyl chloride	<1290		1290		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100
Xylenes, total	<1290		1290		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:33	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 09:33*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 09:33*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 09:33*	*100*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.4**		0.1		%		05/04/12 18:24	05/04/12 18:24	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-16(MIP-05) 12-14

Date Collected: 05/02/12 10:45
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-06

Matrix: Soil
Percent Solids: 87

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5750		5750		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Benzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Bromobenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Bromochloromethane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Bromodichloromethane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Bromoform	<1150		1150		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Bromomethane	<2300		2300		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
2-Butanone (MEK)	<5750		5750		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
n-Butylbenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
sec-Butylbenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
tert-Butylbenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Carbon disulfide	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Carbon Tetrachloride	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Chlorobenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Chlorodibromomethane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Chloroethane	<2300		2300		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Chloroform	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Chloromethane	<2300		2300		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
2-Chlorotoluene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
4-Chlorotoluene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,2-Dibromo-3-chloropropane	<5750		5750		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,2-Dibromoethane (EDB)	<5750		5750		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Dibromomethane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,2-Dichlorobenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,3-Dichlorobenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,4-Dichlorobenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Dichlorodifluoromethane	<1720		1720		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,1-Dichloroethane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,2-Dichloroethane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,1-Dichloroethene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
cis-1,2-Dichloroethene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
trans-1,2-Dichloroethene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,2-Dichloropropane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,3-Dichloropropane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
2,2-Dichloropropane	<2300		2300		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,1-Dichloropropene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
cis-1,3-Dichloropropene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
trans-1,3-Dichloropropene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Ethylbenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Hexachlorobutadiene	<2870		2870		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Hexane	<2870		2870		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Isopropylbenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
p-Isopropyltoluene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Methylene Chloride	<5750		5750		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Methyl tert-Butyl Ether	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Naphthalene	<2870		2870		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
n-Propylbenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Styrene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,1,1,2-Tetrachloroethane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,1,2,2-Tetrachloroethane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Tetrachloroethene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100

Client Sample ID: SB-16(MIP-05) 12-14

Lab Sample ID: CVE0462-06

Date Collected: 05/02/12 10:45
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 87

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,2,3-Trichlorobenzene	<2870		2870		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,2,4-Trichlorobenzene	<2870		2870		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,1,1-Trichloroethane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,1,2-Trichloroethane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Trichloroethene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Trichlorofluoromethane	<2300		2300		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,2,3-Trichloropropane	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,2,4-Trimethylbenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
1,3,5-Trimethylbenzene	<575		575		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Vinyl chloride	<1720		1720		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100
Xylenes, total	<1720		1720		ug/kg dry	☼	05/12/12 00:00	05/12/12 09:56	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 09:56*	*100*
Toluene-d8	*101*		*80 - 120*	*05/12/12 00:00*	*05/12/12 09:56*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 09:56*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 20:58	1.00
Diesel	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 20:58	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 20:58	1.00
Motor Oil	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 20:58	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*92*		*60 - 145*	*05/07/12 12:01*	*05/09/12 20:58*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**140**	**J B**	550	110	mg/Kg	☼	05/15/12 07:00	05/15/12 11:20	1
Percent Moisture	**13**		0.10	0.10	%			05/10/12 07:20	1
Percent Solids	**87**		0.10	0.10	%			05/10/12 07:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.0**		0.1		%		05/04/12 18:24	05/04/12 18:24	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: Duplicate-4

Lab Sample ID: CVE0462-07

Date Collected: 05/02/12 00:00
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 87.4

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4400		4400		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Benzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Bromobenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Bromochloromethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Bromodichloromethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Bromoform	<880		880		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Bromomethane	<1760		1760		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
2-Butanone (MEK)	<4400		4400		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
n-Butylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
sec-Butylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
tert-Butylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Carbon disulfide	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Carbon Tetrachloride	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Chlorobenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Chlorodibromomethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Chloroethane	<1760		1760		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Chloroform	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Chloromethane	<1760		1760		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
2-Chlorotoluene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
4-Chlorotoluene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,2-Dibromo-3-chloropropane	<4400		4400		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,2-Dibromoethane (EDB)	<4400		4400		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Dibromomethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,2-Dichlorobenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,3-Dichlorobenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,4-Dichlorobenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Dichlorodifluoromethane	<1320		1320		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,1-Dichloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,2-Dichloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,1-Dichloroethene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
cis-1,2-Dichloroethene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
trans-1,2-Dichloroethene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,2-Dichloropropane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,3-Dichloropropane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
2,2-Dichloropropane	<1760		1760		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,1-Dichloropropene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
cis-1,3-Dichloropropene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
trans-1,3-Dichloropropene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Ethylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Hexachlorobutadiene	<2200		2200		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Hexane	<2200		2200		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Isopropylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
p-Isopropyltoluene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Methylene Chloride	<4400		4400		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Methyl tert-Butyl Ether	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Naphthalene	<2200		2200		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
n-Propylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Styrene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,1,1,2-Tetrachloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,1,2,2-Tetrachloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Tetrachloroethene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100

Client Sample ID: Duplicate-4

Date Collected: 05/02/12 00:00
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-07

Matrix: Soil
Percent Solids: 87.4

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,2,3-Trichlorobenzene	<2200		2200		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,2,4-Trichlorobenzene	<2200		2200		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,1,1-Trichloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,1,2-Trichloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Trichloroethene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Trichlorofluoromethane	<1760		1760		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,2,3-Trichloropropane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,2,4-Trimethylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
1,3,5-Trimethylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Vinyl chloride	<1320		1320		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100
Xylenes, total	<1320		1320		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:19	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 10:19*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 10:19*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 10:19*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 21:39	1.00
Diesel	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 21:39	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 21:39	1.00
Motor Oil	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 21:39	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*89*		*60 - 145*	*05/07/12 12:01*	*05/09/12 21:39*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<110		570	110	mg/Kg	☼	05/15/12 07:00	05/15/12 11:26	1
Percent Moisture	**13**		0.10	0.10	%			05/10/12 07:20	1
Percent Solids	**87**		0.10	0.10	%			05/10/12 07:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.4**		0.1		%		05/04/12 18:24	05/04/12 18:24	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-16(MIP-05) 18-20

Lab Sample ID: CVE0462-08

Date Collected: 05/02/12 11:00
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86.8

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4670		4670		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Benzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Bromobenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Bromochloromethane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Bromodichloromethane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Bromoform	<934		934		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Bromomethane	<1870		1870		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
2-Butanone (MEK)	<4670		4670		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
n-Butylbenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
sec-Butylbenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
tert-Butylbenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Carbon disulfide	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Carbon Tetrachloride	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Chlorobenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Chlorodibromomethane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Chloroethane	<1870		1870		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Chloroform	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Chloromethane	<1870		1870		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
2-Chlorotoluene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
4-Chlorotoluene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,2-Dibromo-3-chloropropane	<4670		4670		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,2-Dibromoethane (EDB)	<4670		4670		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Dibromomethane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,2-Dichlorobenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,3-Dichlorobenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,4-Dichlorobenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Dichlorodifluoromethane	<1400		1400		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,1-Dichloroethane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,2-Dichloroethane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,1-Dichloroethene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
cis-1,2-Dichloroethene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
trans-1,2-Dichloroethene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,2-Dichloropropane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,3-Dichloropropane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
2,2-Dichloropropane	<1870		1870		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,1-Dichloropropene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
cis-1,3-Dichloropropene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
trans-1,3-Dichloropropene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Ethylbenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Hexachlorobutadiene	<2330		2330		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Hexane	<2330		2330		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Isopropylbenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
p-Isopropyltoluene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Methylene Chloride	<4670		4670		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Methyl tert-Butyl Ether	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Naphthalene	<2330		2330		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
n-Propylbenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Styrene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,1,1,2-Tetrachloroethane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,1,2,2-Tetrachloroethane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Tetrachloroethene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100

Client Sample ID: SB-16(MIP-05) 18-20

Lab Sample ID: CVE0462-08

Date Collected: 05/02/12 11:00

Matrix: Soil

Date Received: 05/04/12 09:30

Percent Solids: 86.8

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,2,3-Trichlorobenzene	<2330		2330		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,2,4-Trichlorobenzene	<2330		2330		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,1,1-Trichloroethane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,1,2-Trichloroethane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Trichloroethene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Trichlorofluoromethane	<1870		1870		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,2,3-Trichloropropane	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,2,4-Trimethylbenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
1,3,5-Trimethylbenzene	<467		467		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Vinyl chloride	<1400		1400		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100
Xylenes, total	<1400		1400		ug/kg dry	☼	05/12/12 00:00	05/12/12 10:43	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 10:43*	*100*
Toluene-d8	*101*		*80 - 120*	*05/12/12 00:00*	*05/12/12 10:43*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 10:43*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 22:20	1.00
Diesel	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 22:20	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 22:20	1.00
Motor Oil	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 22:20	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*86*		*60 - 145*	*05/07/12 12:01*	*05/09/12 22:20*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**180**	**J B**	560	110	mg/Kg	☼	05/15/12 07:00	05/15/12 11:31	1
Percent Moisture	**13**		0.10	0.10	%			05/10/12 07:20	1
Percent Solids	**87**		0.10	0.10	%			05/10/12 07:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.8**		0.1		%		05/04/12 18:24	05/04/12 18:24	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-16(MIP-05) 24-26

Lab Sample ID: CVE0462-09

Date Collected: 05/02/12 11:15
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86.7

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4540		4540		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Benzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Bromobenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Bromochloromethane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Bromodichloromethane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Bromoform	<908		908		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Bromomethane	<1820		1820		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
2-Butanone (MEK)	<4540		4540		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
n-Butylbenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
sec-Butylbenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
tert-Butylbenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Carbon disulfide	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Carbon Tetrachloride	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Chlorobenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Chlorodibromomethane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Chloroethane	<1820		1820		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Chloroform	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Chloromethane	<1820		1820		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
2-Chlorotoluene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
4-Chlorotoluene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,2-Dibromo-3-chloropropane	<4540		4540		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,2-Dibromoethane (EDB)	<4540		4540		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Dibromomethane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,2-Dichlorobenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,3-Dichlorobenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,4-Dichlorobenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Dichlorodifluoromethane	<1360		1360		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,1-Dichloroethane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,2-Dichloroethane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,1-Dichloroethene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
cis-1,2-Dichloroethene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
trans-1,2-Dichloroethene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,2-Dichloropropane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,3-Dichloropropane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
2,2-Dichloropropane	<1820		1820		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,1-Dichloropropene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
cis-1,3-Dichloropropene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
trans-1,3-Dichloropropene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Ethylbenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Hexachlorobutadiene	<2270		2270		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Hexane	<2270		2270		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Isopropylbenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
p-Isopropyltoluene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Methylene Chloride	<4540		4540		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Methyl tert-Butyl Ether	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Naphthalene	<2270		2270		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
n-Propylbenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Styrene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,1,1,2-Tetrachloroethane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,1,2,2-Tetrachloroethane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Tetrachloroethene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-16(MIP-05) 24-26

Date Collected: 05/02/12 11:15
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-09

Matrix: Soil
Percent Solids: 86.7

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,2,3-Trichlorobenzene	<2270		2270		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,2,4-Trichlorobenzene	<2270		2270		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,1,1-Trichloroethane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,1,2-Trichloroethane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Trichloroethene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Trichlorofluoromethane	<1820		1820		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,2,3-Trichloropropane	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,2,4-Trimethylbenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
1,3,5-Trimethylbenzene	<454		454		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Vinyl chloride	<1360		1360		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100
Xylenes, total	<1360		1360		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:05	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*75 - 125*	*05/12/12 00:00*	*05/12/12 11:05*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 11:05*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 11:05*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 23:01	1.00
Diesel	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 23:01	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 23:01	1.00
Motor Oil	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 23:01	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*101*		*60 - 145*	*05/07/12 12:01*	*05/09/12 23:01*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**140**	**J B**	570	110	mg/Kg	☼	05/15/12 07:00	05/15/12 11:37	1
Percent Moisture	**13**		0.10	0.10	%			05/10/12 07:20	1
Percent Solids	**87**		0.10	0.10	%			05/10/12 07:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.7**		0.1		%		05/04/12 18:24	05/04/12 18:24	1.00

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-17(MIP-20) 02-04
Date Collected: 05/02/12 11:50
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-10
Matrix: Soil
Percent Solids: 80.1

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5410		5410		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Benzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Bromobenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Bromochloromethane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Bromodichloromethane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Bromoform	<1080		1080		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Bromomethane	<2160		2160		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
2-Butanone (MEK)	<5410		5410		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
n-Butylbenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
sec-Butylbenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
tert-Butylbenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Carbon disulfide	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Carbon Tetrachloride	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Chlorobenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Chlorodibromomethane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Chloroethane	<2160		2160		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Chloroform	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Chloromethane	<2160		2160		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
2-Chlorotoluene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
4-Chlorotoluene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,2-Dibromo-3-chloropropane	<5410		5410		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,2-Dibromoethane (EDB)	<5410		5410		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Dibromomethane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,2-Dichlorobenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,3-Dichlorobenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,4-Dichlorobenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Dichlorodifluoromethane	<1620		1620		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,1-Dichloroethane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,2-Dichloroethane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,1-Dichloroethene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
cis-1,2-Dichloroethene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
trans-1,2-Dichloroethene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,2-Dichloropropane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,3-Dichloropropane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
2,2-Dichloropropane	<2160		2160		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,1-Dichloropropene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
cis-1,3-Dichloropropene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
trans-1,3-Dichloropropene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Ethylbenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Hexachlorobutadiene	<2700		2700		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Hexane	<2700		2700		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Isopropylbenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
p-Isopropyltoluene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Methylene Chloride	<5410		5410		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Methyl tert-Butyl Ether	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Naphthalene	<2700		2700		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
n-Propylbenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Styrene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,1,1,2-Tetrachloroethane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,1,2,2-Tetrachloroethane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Tetrachloroethene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-17(MIP-20) 02-04

Date Collected: 05/02/12 11:50
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-10

Matrix: Soil
Percent Solids: 80.1

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,2,3-Trichlorobenzene	<2700		2700		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,2,4-Trichlorobenzene	<2700		2700		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,1,1-Trichloroethane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,1,2-Trichloroethane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Trichloroethene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Trichlorofluoromethane	<2160		2160		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,2,3-Trichloropropane	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,2,4-Trimethylbenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
1,3,5-Trimethylbenzene	<541		541		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Vinyl chloride	<1620		1620		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100
Xylenes, total	<1620		1620		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:29	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 11:29*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 11:29*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 11:29*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**11.4**		10.0		mg/kg		05/07/12 12:01	05/09/12 23:42	1.00
Diesel	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 23:42	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 23:42	1.00
Motor Oil	**11.4**	**Q**	10.0		mg/kg		05/07/12 12:01	05/09/12 23:42	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*82*		*60 - 145*	*05/07/12 12:01*	*05/09/12 23:42*	*1.00*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0234**		0.0221		mg/kg dry	☼	05/08/12 13:38	05/08/12 15:55	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<5.00		5.00		mg/kg dry	☼	05/08/12 10:26	05/09/12 11:44	1.00
Barium	**176**		0.624		mg/kg dry	☼	05/08/12 10:26	05/09/12 11:44	1.00
Cadmium	<1.25		1.25		mg/kg dry	☼	05/08/12 10:26	05/09/12 11:44	1.00
Chromium	**23.4**		1.25		mg/kg dry	☼	05/08/12 10:26	05/09/12 11:44	1.00
Lead	**11.8**		6.24		mg/kg dry	☼	05/08/12 10:26	05/09/12 11:44	1.00
Selenium	<9.37		9.37		mg/kg dry	☼	05/08/12 10:26	05/09/12 11:44	1.00
Silver	**3.10**		1.25		mg/kg dry	☼	05/08/12 10:26	05/09/12 11:44	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**140**	**J B**	600	110	mg/Kg	☼	05/15/12 07:00	05/15/12 11:42	1
Percent Moisture	**20**		0.10	0.10	%			05/10/12 07:20	1
Percent Solids	**80**		0.10	0.10	%			05/10/12 07:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**80.1**		0.1		%		05/04/12 18:24	05/04/12 18:24	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-17(MIP-20) 10-12

Lab Sample ID: CVE0462-11

Date Collected: 05/02/12 12:00
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86.1

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4400		4400		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Benzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Bromobenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Bromochloromethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Bromodichloromethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Bromoform	<879		879		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Bromomethane	<1760		1760		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
2-Butanone (MEK)	<4400		4400		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
n-Butylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
sec-Butylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
tert-Butylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Carbon disulfide	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Carbon Tetrachloride	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Chlorobenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Chlorodibromomethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Chloroethane	<1760		1760		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Chloroform	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Chloromethane	<1760		1760		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
2-Chlorotoluene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
4-Chlorotoluene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,2-Dibromo-3-chloropropane	<4400		4400		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,2-Dibromoethane (EDB)	<4400		4400		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Dibromomethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,2-Dichlorobenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,3-Dichlorobenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,4-Dichlorobenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Dichlorodifluoromethane	<1320		1320		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,1-Dichloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,2-Dichloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,1-Dichloroethene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
cis-1,2-Dichloroethene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
trans-1,2-Dichloroethene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,2-Dichloropropane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,3-Dichloropropane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
2,2-Dichloropropane	<1760		1760		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,1-Dichloropropene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
cis-1,3-Dichloropropene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
trans-1,3-Dichloropropene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Ethylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Hexachlorobutadiene	<2200		2200		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Hexane	<2200		2200		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Isopropylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
p-Isopropyltoluene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Methylene Chloride	<4400		4400		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Methyl tert-Butyl Ether	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Naphthalene	<2200		2200		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
n-Propylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Styrene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,1,1,2-Tetrachloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,1,2,2-Tetrachloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Tetrachloroethene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100

Client Sample ID: SB-17(MIP-20) 10-12

Date Collected: 05/02/12 12:00
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-11

Matrix: Soil
Percent Solids: 86.1

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,2,3-Trichlorobenzene	<2200		2200		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,2,4-Trichlorobenzene	<2200		2200		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,1,1-Trichloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,1,2-Trichloroethane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Trichloroethene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Trichlorofluoromethane	<1760		1760		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,2,3-Trichloropropane	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,2,4-Trimethylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
1,3,5-Trimethylbenzene	<440		440		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Vinyl chloride	<1320		1320		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100
Xylenes, total	<1320		1320		ug/kg dry	☼	05/12/12 00:00	05/12/12 11:51	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 11:51*	*100*
Toluene-d8	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 11:51*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 11:51*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 00:23	1.00
Diesel	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 00:23	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 00:23	1.00
Motor Oil	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 00:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*86*		*60 - 145*	*05/07/12 12:01*	*05/10/12 00:23*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**110**	**J B**	560	110	mg/Kg	☼	05/15/12 07:00	05/15/12 11:47	1
Percent Moisture	**14**		0.10	0.10	%			05/10/12 07:20	1
Percent Solids	**86**		0.10	0.10	%			05/10/12 07:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.1**		0.1		%		05/04/12 18:29	05/04/12 18:29	1.00

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: Duplicate-5
Date Collected: 05/02/12 00:00
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-12
Matrix: Soil
Percent Solids: 86.3

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4830		4830		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Benzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Bromobenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Bromochloromethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Bromodichloromethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Bromoform	<967		967		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Bromomethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
2-Butanone (MEK)	<4830		4830		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
n-Butylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
sec-Butylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
tert-Butylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Carbon disulfide	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Carbon Tetrachloride	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Chlorobenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Chlorodibromomethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Chloroethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Chloroform	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Chloromethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
2-Chlorotoluene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
4-Chlorotoluene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,2-Dibromo-3-chloropropane	<4830		4830		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,2-Dibromoethane (EDB)	<4830		4830		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Dibromomethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,2-Dichlorobenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,3-Dichlorobenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,4-Dichlorobenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Dichlorodifluoromethane	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,1-Dichloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,2-Dichloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,1-Dichloroethene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
cis-1,2-Dichloroethene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
trans-1,2-Dichloroethene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,2-Dichloropropane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,3-Dichloropropane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
2,2-Dichloropropane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,1-Dichloropropene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
cis-1,3-Dichloropropene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
trans-1,3-Dichloropropene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Ethylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Hexachlorobutadiene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Hexane	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Isopropylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
p-Isopropyltoluene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Methylene Chloride	<4830		4830		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Methyl tert-Butyl Ether	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Naphthalene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
n-Propylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Styrene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,1,1,2-Tetrachloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,1,2,2-Tetrachloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Tetrachloroethene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100

Client Sample ID: Duplicate-5

Date Collected: 05/02/12 00:00
Date Received: 05/04/12 09:30

Lab Sample ID: CVE0462-12

Matrix: Soil
Percent Solids: 86.3

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,2,3-Trichlorobenzene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,2,4-Trichlorobenzene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,1,1-Trichloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,1,2-Trichloroethane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Trichloroethene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Trichlorofluoromethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,2,3-Trichloropropane	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,2,4-Trimethylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
1,3,5-Trimethylbenzene	<483		483		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Vinyl chloride	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100
Xylenes, total	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:15	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 12:15*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 12:15*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 12:15*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 01:04	1.00
Diesel	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 01:04	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 01:04	1.00
Motor Oil	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 01:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*78*		*60 - 145*	*05/07/12 12:01*	*05/10/12 01:04*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**140**	**J B**	580	110	mg/Kg	☼	05/15/12 07:00	05/15/12 11:53	1
Percent Moisture	**14**		0.10	0.10	%			05/10/12 07:20	1
Percent Solids	**86**		0.10	0.10	%			05/10/12 07:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.3**		0.1		%		05/04/12 18:29	05/04/12 18:29	1.00

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: Trip Blank

Lab Sample ID: CVE0462-13

Date Collected: 05/02/12 00:00

Matrix: Water

Date Received: 05/04/12 09:30

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Benzene	<0.500		0.500		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Bromobenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Bromochloromethane	<5.00		5.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Bromodichloromethane	<4.00		4.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Bromoform	<5.00	CIN	5.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Bromomethane	<4.00		4.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
2-Butanone (MEK)	<10.0		10.0		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
n-Butylbenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
sec-Butylbenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
tert-Butylbenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Carbon disulfide	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Carbon Tetrachloride	<2.00		2.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Chlorobenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Chlorodibromomethane	<5.00		5.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Chloroethane	<4.00		4.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Chloroform	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Chloromethane	<3.00		3.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
2-Chlorotoluene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
4-Chlorotoluene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,2-Dibromo-3-chloropropane	<10.0		10.0		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Dibromomethane	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,2-Dichlorobenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,3-Dichlorobenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,4-Dichlorobenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Dichlorodifluoromethane	<4.00		4.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,1-Dichloroethane	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,2-Dichloroethane	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,1-Dichloroethene	<2.00		2.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
cis-1,2-Dichloroethene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
trans-1,2-Dichloroethene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,2-Dichloropropane	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,3-Dichloropropane	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
2,2-Dichloropropane	<4.00		4.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,1-Dichloropropene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
cis-1,3-Dichloropropene	<5.00		5.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
trans-1,3-Dichloropropene	<5.00		5.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Ethylbenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Hexachlorobutadiene	<5.00		5.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Hexane	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Isopropylbenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
p-Isopropyltoluene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Methylene Chloride	<5.00		5.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Methyl tert-Butyl Ether	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Naphthalene	<5.00		5.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
n-Propylbenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Styrene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,1,1,2-Tetrachloroethane	<4.00		4.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Tetrachloroethene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: Trip Blank

Lab Sample ID: CVE0462-13

Date Collected: 05/02/12 00:00

Matrix: Water

Date Received: 05/04/12 09:30

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,1,1-Trichloroethane	<2.00		2.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,1,2-Trichloroethane	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Trichloroethene	<2.00		2.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Trichlorofluoromethane	<4.00		4.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,2,3-Trichloropropane	<4.00		4.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Vinyl chloride	<2.00		2.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00
Xylenes, total	<3.00		3.00		ug/L		05/06/12 00:00	05/06/12 01:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*89*		*75 - 120*	*05/06/12 00:00*	*05/06/12 01:14*	*1.00*
Toluene-d8	*86*		*80 - 120*	*05/06/12 00:00*	*05/06/12 01:14*	*1.00*
4-Bromofluorobenzene	*107*		*75 - 110*	*05/06/12 00:00*	*05/06/12 01:14*	*1.00*

Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<2.00		2.00		units		05/08/12 08:14	05/08/12 08:18	1.00

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Method: SW 8260B - Volatile Organic Compounds

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-125)	(80-120)	(80-120)
CVE0462-01	SB-14(MIP-21) 07-09	102	100	99
CVE0462-02	SB-14(MIP-21) 12-14	100	100	100
CVE0462-03	SB-14(MIP-21) 23-25	100	100	100
CVE0462-04	SB-15(MIP-3) 13-15	99	100	98
CVE0462-05	SB-15(MIP-3) 19-21	101	100	99
CVE0462-06	SB-16(MIP-05) 12-14	102	101	100
CVE0462-07	Duplicate-4	102	100	100
CVE0462-08	SB-16(MIP-05) 18-20	102	101	99
CVE0462-09	SB-16(MIP-05) 24-26	100	100	100
CVE0462-10	SB-17(MIP-20) 02-04	102	100	99
CVE0462-11	SB-17(MIP-20) 10-12	101	99	99
CVE0462-12	Duplicate-5	102	100	99

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Method: SW 8260B - Volatile Organic Compounds

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-125)	(80-120)	(80-120)
12E0709-BLK1	Method Blank	101	98	97
12E0709-BS1	Lab Control Sample	100	100	100
12E0709-BSD1	Lab Control Sample Dup	100	100	99
12E0839-BLK1	Method Blank	98	100	99
12E0839-BS1	Lab Control Sample	96	98	98
12E0839-BSD1	Lab Control Sample Dup	97	100	102

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Method: SW 8260B - Volatile Organic Compounds

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-120)	(80-120)	(75-110)
CVE0462-13	Trip Blank	89	86	107

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Method: SW 8260B - Volatile Organic Compounds

Matrix: Water - NonPotable **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-120)	(80-120)	(75-110)
12E0595-BLK1	Method Blank	88	93	107

Surrogate Legend

DBFM = Dibromofluoromethane
Toluene-d8 = Toluene-d8
BFB = 4-Bromofluorobenzene

Method: SW 8260B - Volatile Organic Compounds

Matrix: Water - NonPotable **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-120)	(80-120)	(80-120)
12E0595-BS1	Lab Control Sample	88	90	108
12E0595-MS1	Matrix Spike	94	88	106
12E0595-MSD1	Matrix Spike Duplicate	93	90	105

Surrogate Legend

DBFM = Dibromofluoromethane
Toluene-d8 = Toluene-d8
BFB = 4-Bromofluorobenzene

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)
		Octacosane
Lab Sample ID	Client Sample ID	(60-145)
CVE0462-06	SB-16(MIP-05) 12-14	92
CVE0462-07	Duplicate-4	89
CVE0462-08	SB-16(MIP-05) 18-20	86
CVE0462-09	SB-16(MIP-05) 24-26	101
CVE0462-10	SB-17(MIP-20) 02-04	82
CVE0462-11	SB-17(MIP-20) 10-12	86
CVE0462-12	Duplicate-5	78

Surrogate Legend

Octacosane = Octacosane

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)
		Octacosane
Lab Sample ID	Client Sample ID	(60-145)
12E0361-BLK1	Method Blank	80

Surrogate Legend

Octacosane = Octacosane

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**Octacosane (60-150)**							
12E0361-BS1	Lab Control Sample	81							
12E0361-MS1	Matrix Spike	64							
12E0361-MSD1	Matrix Spike Duplicate	66							

Surrogate Legend

Octacosane = Octacosane

Method: SW 8260B - Volatile Organic Compounds

Lab Sample ID: 12E0595-BLK1
Matrix: Water - NonPotable
Analysis Batch: 12E0595

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0595_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Benzene	<0.500		0.500		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Bromobenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Bromochloromethane	<5.00		5.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Bromodichloromethane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Bromoform	<5.00	CIN	5.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Bromomethane	<4.00		4.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
2-Butanone (MEK)	<10.0		10.0		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
n-Butylbenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
sec-Butylbenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
tert-Butylbenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Carbon disulfide	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Carbon Tetrachloride	<2.00		2.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Chlorobenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Chlorodibromomethane	<5.00		5.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Chloroethane	<4.00		4.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Chloroform	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Chloromethane	<3.00		3.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
2-Chlorotoluene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
4-Chlorotoluene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,2-Dibromo-3-chloropropane	<10.0		10.0		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Dibromomethane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,2-Dichlorobenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,3-Dichlorobenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,4-Dichlorobenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Dichlorodifluoromethane	<3.00		3.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,1-Dichloroethane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,2-Dichloroethane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,1-Dichloroethene	<2.00		2.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
cis-1,2-Dichloroethene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
trans-1,2-Dichloroethene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,2-Dichloropropane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,3-Dichloropropane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
2,2-Dichloropropane	<4.00		4.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,1-Dichloropropene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
cis-1,3-Dichloropropene	<5.00		5.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
trans-1,3-Dichloropropene	<5.00		5.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Ethylbenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Hexachlorobutadiene	<5.00		5.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Hexane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Isopropylbenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
p-Isopropyltoluene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Methylene Chloride	<5.00		5.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Methyl tert-Butyl Ether	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Naphthalene	<5.00		5.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
n-Propylbenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Styrene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0595-BLK1
Matrix: Water - NonPotable
Analysis Batch: 12E0595

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0595_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Tetrachloroethene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Toluene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,1,1-Trichloroethane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,1,2-Trichloroethane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Trichloroethene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Trichlorofluoromethane	<4.00		4.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,2,3-Trichloropropane	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Vinyl chloride	<1.00		1.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00
Xylenes, total	<3.00		3.00		ug/L		05/05/12 00:00	05/05/12 17:46	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*88*		*75 - 120*	*05/05/12 00:00*	*05/05/12 17:46*	*1.00*
Toluene-d8	*93*		*80 - 120*	*05/05/12 00:00*	*05/05/12 17:46*	*1.00*
4-Bromofluorobenzene	*107*		*75 - 110*	*05/05/12 00:00*	*05/05/12 17:46*	*1.00*

Lab Sample ID: 12E0595-BS1
Matrix: Water - NonPotable
Analysis Batch: 12E0595

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0595_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	17.3		ug/L		87	60 - 150
Benzene	20.0	16.4		ug/L		82	70 - 130
Bromobenzene	20.0	15.8		ug/L		79	75 - 130
Bromochloromethane	20.0	16.9		ug/L		85	65 - 145
Bromodichloromethane	20.0	16.6		ug/L		83	60 - 130
Bromoform	20.0	13.0	CIN	ug/L		65	30 - 125
Bromomethane	20.0	14.8		ug/L		74	35 - 130
2-Butanone (MEK)	20.0	15.2		ug/L		76	55 - 140
n-Butylbenzene	20.0	14.2		ug/L		71	55 - 135
sec-Butylbenzene	20.0	14.3		ug/L		71	65 - 135
tert-Butylbenzene	20.0	14.4		ug/L		72	60 - 135
Carbon disulfide	20.0	15.7		ug/L		79	40 - 130
Carbon Tetrachloride	20.0	16.0		ug/L		80	55 - 130
Chlorobenzene	20.0	15.2		ug/L		76	75 - 125
Chlorodibromomethane	20.0	16.7		ug/L		84	45 - 125
Chloroethane	20.0	18.0		ug/L		90	55 - 135
Chloroform	20.0	16.0		ug/L		80	70 - 125
Chloromethane	20.0	17.9		ug/L		90	30 - 125
2-Chlorotoluene	20.0	15.4		ug/L		77	75 - 135
4-Chlorotoluene	20.0	15.9		ug/L		80	70 - 140
1,2-Dibromo-3-chloropropane	20.0	9.21		ug/L		46	35 - 130
1,2-Dibromoethane (EDB)	20.0	14.3		ug/L		72	70 - 135
Dibromomethane	20.0	17.4		ug/L		87	75 - 130
1,2-Dichlorobenzene	20.0	14.4		ug/L		72	65 - 135

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0595-BS1
Matrix: Water - NonPotable
Analysis Batch: 12E0595

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0595_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	20.0	14.2		ug/L		71	70 - 130
1,4-Dichlorobenzene	20.0	13.9		ug/L		70	60 - 140
Dichlorodifluoromethane	20.0	15.6		ug/L		78	35 - 130
1,1-Dichloroethane	20.0	14.7		ug/L		73	60 - 130
1,2-Dichloroethane	20.0	16.1		ug/L		80	65 - 140
1,1-Dichloroethene	20.0	15.2		ug/L		76	60 - 135
cis-1,2-Dichloroethene	20.0	15.4		ug/L		77	70 - 135
trans-1,2-Dichloroethene	20.0	16.0		ug/L		80	60 - 145
1,2-Dichloropropane	20.0	16.3		ug/L		81	65 - 130
1,3-Dichloropropane	20.0	17.4		ug/L		87	75 - 125
2,2-Dichloropropane	20.0	15.4		ug/L		77	25 - 120
1,1-Dichloropropene	20.0	15.5		ug/L		77	60 - 140
cis-1,3-Dichloropropene	20.0	15.5		ug/L		78	30 - 120
trans-1,3-Dichloropropene	20.0	13.7		ug/L		68	35 - 120
Ethylbenzene	20.0	15.3		ug/L		76	70 - 130
Hexachlorobutadiene	20.0	13.2		ug/L		66	60 - 135
Hexane	20.0	15.2		ug/L		76	40 - 135
Isopropylbenzene	20.0	15.7		ug/L		78	70 - 125
p-Isopropyltoluene	20.0	13.4		ug/L		67	60 - 140
Methylene Chloride	20.0	16.7		ug/L		83	55 - 145
Methyl tert-Butyl Ether	20.0	15.4		ug/L		77	50 - 135
Naphthalene	20.0	10.8		ug/L		54	40 - 135
n-Propylbenzene	20.0	15.2		ug/L		76	70 - 135
Styrene	20.0	15.0		ug/L		75	70 - 130
1,1,1,2-Tetrachloroethane	20.0	15.0		ug/L		75	65 - 120
1,1,2,2-Tetrachloroethane	20.0	14.0		ug/L		70	65 - 130
Tetrachloroethene	20.0	15.1		ug/L		76	70 - 135
Toluene	20.0	15.7		ug/L		79	70 - 135
1,2,3-Trichlorobenzene	20.0	11.8		ug/L		59	55 - 130
1,2,4-Trichlorobenzene	20.0	12.9		ug/L		65	40 - 135
1,1,1-Trichloroethane	20.0	16.9		ug/L		85	60 - 125
1,1,2-Trichloroethane	20.0	16.5		ug/L		82	75 - 125
Trichloroethene	20.0	18.0		ug/L		90	70 - 130
Trichlorofluoromethane	20.0	22.3		ug/L		112	55 - 145
1,2,3-Trichloropropane	20.0	14.0		ug/L		70	60 - 150
1,2,4-Trimethylbenzene	20.0	15.1		ug/L		76	70 - 140
1,3,5-Trimethylbenzene	20.0	15.7		ug/L		78	70 - 140
Vinyl chloride	20.0	19.5		ug/L		98	45 - 135
Xylenes, total	60.0	46.4		ug/L		77	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*88*		*75 - 120*
Toluene-d8	*90*		*80 - 120*
4-Bromofluorobenzene	*108*		*80 - 120*

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0595-MS1
Matrix: Water - NonPotable
Analysis Batch: 12E0595

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12E0595_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.260		20.0	17.6		ug/L		87	45 - 150
Benzene	<0.110		20.0	15.8		ug/L		79	50 - 130
Bromobenzene	0.0400		20.0	16.3		ug/L		81	60 - 135
Bromochloromethane	<0.120		20.0	18.4		ug/L		92	55 - 145
Bromodichloromethane	0.0300		20.0	18.1		ug/L		90	50 - 130
Bromoform	0.0300		20.0	16.2	CIN	ug/L		81	30 - 125
Bromomethane	0.180		20.0	12.4		ug/L		61	30 - 130
2-Butanone (MEK)	0.0200		20.0	18.7		ug/L		93	45 - 140
n-Butylbenzene	0.330		20.0	11.4		ug/L		55	40 - 135
sec-Butylbenzene	0.0900		20.0	10.7		ug/L		53	40 - 135
tert-Butylbenzene	0.0700		20.0	11.4		ug/L		56	40 - 135
Carbon disulfide	0.240		20.0	13.9		ug/L		68	30 - 130
Carbon Tetrachloride	0.640		20.0	11.8		ug/L		56	35 - 130
Chlorobenzene	0.0300		20.0	15.6		ug/L		78	60 - 130
Chlorodibromomethane	<0.200		20.0	18.0		ug/L		90	35 - 130
Chloroethane	<0.150		20.0	13.8		ug/L		69	40 - 135
Chloroform	0.0500		20.0	17.5		ug/L		87	55 - 125
Chloromethane	0.0900		20.0	13.7		ug/L		68	25 - 125
2-Chlorotoluene	0.0100		20.0	14.7		ug/L		73	55 - 140
4-Chlorotoluene	0.0900		20.0	15.7		ug/L		78	50 - 140
1,2-Dibromo-3-chloropropane	0.130		20.0	12.8		ug/L		63	35 - 130
1,2-Dibromoethane (EDB)	0.0600		20.0	16.3		ug/L		81	55 - 140
Dibromomethane	<0.180		20.0	18.6		ug/L		93	60 - 135
1,2-Dichlorobenzene	0.150		20.0	15.4		ug/L		76	55 - 140
1,3-Dichlorobenzene	0.100		20.0	14.6		ug/L		73	55 - 135
1,4-Dichlorobenzene	0.120		20.0	14.9		ug/L		74	55 - 140
Dichlorodifluoromethane	<0.200		20.0	11.8		ug/L		59	15 - 130
1,1-Dichloroethane	<0.210		20.0	15.3		ug/L		76	50 - 130
1,2-Dichloroethane	<0.180		20.0	18.4		ug/L		92	55 - 140
1,1-Dichloroethene	0.0100		20.0	11.0		ug/L		55	35 - 135
cis-1,2-Dichloroethene	0.0200		20.0	16.3		ug/L		81	45 - 135
trans-1,2-Dichloroethene	<0.210		20.0	15.2		ug/L		76	45 - 145
1,2-Dichloropropane	<0.870		20.0	17.9		ug/L		90	55 - 130
1,3-Dichloropropane	0.0100		20.0	18.6		ug/L		93	60 - 135
2,2-Dichloropropane	<0.180		20.0	12.9		ug/L		65	20 - 120
1,1-Dichloropropene	<0.150		20.0	12.1		ug/L		60	40 - 140
cis-1,3-Dichloropropene	<0.150		20.0	17.5		ug/L		87	25 - 120
trans-1,3-Dichloropropene	0.0500		20.0	17.0		ug/L		85	25 - 120
Ethylbenzene	0.0400		20.0	13.6		ug/L		68	45 - 135
Hexachlorobutadiene	1.03		20.0	11.4		ug/L		52	40 - 135
Hexane	0.0100		20.0	8.01		ug/L		40	25 - 135
Isopropylbenzene	0.0300		20.0	12.4		ug/L		62	45 - 125
p-Isopropyltoluene	0.0900		20.0	11.4		ug/L		57	40 - 140
Methylene Chloride	0.390		20.0	17.9		ug/L		88	45 - 145
Methyl tert-Butyl Ether	0.0100		20.0	18.7		ug/L		94	40 - 135
Naphthalene	1.30		20.0	13.8		ug/L		62	40 - 135
n-Propylbenzene	0.0700		20.0	12.6		ug/L		63	45 - 140
Styrene	0.0100		20.0	15.9		ug/L		79	40 - 135
1,1,1,2-Tetrachloroethane	<0.210		20.0	14.8		ug/L		74	50 - 130

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0595-MS1
Matrix: Water - NonPotable
Analysis Batch: 12E0595

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12E0595_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	0.0100		20.0	17.2		ug/L		86	55 - 140
Tetrachloroethene	<0.180		20.0	11.2		ug/L		56	40 - 135
Toluene	0.0100		20.0	14.6		ug/L		73	45 - 135
1,2,3-Trichlorobenzene	1.45		20.0	14.1		ug/L		63	50 - 140
1,2,4-Trichlorobenzene	1.03		20.0	14.4		ug/L		67	40 - 135
1,1,1-Trichloroethane	<0.120		20.0	13.3		ug/L		66	40 - 125
1,1,2-Trichloroethane	<0.120		20.0	20.0		ug/L		100	60 - 130
Trichloroethene	<0.190		20.0	14.9		ug/L		75	50 - 130
Trichlorofluoromethane	0.0200		20.0	17.2		ug/L		86	40 - 145
1,2,3-Trichloropropane	<0.190		20.0	15.8		ug/L		79	55 - 150
1,2,4-Trimethylbenzene	0.0800		20.0	14.6		ug/L		73	45 - 140
1,3,5-Trimethylbenzene	0.0500		20.0	13.9		ug/L		69	45 - 140
Vinyl chloride	0.0400		20.0	14.2		ug/L		71	30 - 135
Xylenes, total	<0.130		60.0	44.7		ug/L		74	40 - 135

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*94*		*75 - 120*
Toluene-d8	*88*		*80 - 120*
4-Bromofluorobenzene	*106*		*80 - 120*

Lab Sample ID: 12E0595-MSD1
Matrix: Water - NonPotable
Analysis Batch: 12E0595

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 12E0595_P

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.260		20.0	12.0	R	ug/L		59	45 - 150	38	35
Benzene	<0.110		20.0	14.4		ug/L		72	50 - 130	9	20
Bromobenzene	0.0400		20.0	15.3		ug/L		76	60 - 135	6	15
Bromochloromethane	<0.120		20.0	17.8		ug/L		89	55 - 145	4	25
Bromodichloromethane	0.0300		20.0	15.8		ug/L		79	50 - 130	14	15
Bromoform	0.0300		20.0	12.3	CIN R	ug/L		62	30 - 125	27	25
Bromomethane	0.180		20.0	11.4		ug/L		56	30 - 130	8	35
2-Butanone (MEK)	0.0200		20.0	13.5		ug/L		68	45 - 140	32	35
n-Butylbenzene	0.330		20.0	11.1		ug/L		54	40 - 135	3	20
sec-Butylbenzene	0.0900		20.0	10.9		ug/L		54	40 - 135	1	20
tert-Butylbenzene	0.0700		20.0	11.6		ug/L		58	40 - 135	2	20
Carbon disulfide	0.240		20.0	11.7		ug/L		57	30 - 130	17	30
Carbon Tetrachloride	0.640		20.0	10.6		ug/L		50	35 - 130	11	20
Chlorobenzene	0.0300		20.0	13.9		ug/L		69	60 - 130	12	15
Chlorodibromomethane	<0.200		20.0	14.9		ug/L		74	35 - 130	19	20
Chloroethane	<0.150		20.0	13.9		ug/L		69	40 - 135	0.4	20
Chloroform	0.0500		20.0	15.7		ug/L		78	55 - 125	11	15
Chloromethane	0.0900		20.0	13.0		ug/L		64	25 - 125	5	25
2-Chlorotoluene	0.0100		20.0	13.8		ug/L		69	55 - 140	6	20
4-Chlorotoluene	0.0900		20.0	14.8		ug/L		74	50 - 140	6	20
1,2-Dibromo-3-chloropropane	0.130		20.0	8.21	R	ug/L		40	35 - 130	43	30
1,2-Dibromoethane (EDB)	0.0600		20.0	13.7		ug/L		68	55 - 140	17	20
Dibromomethane	<0.180		20.0	16.0		ug/L		80	60 - 135	15	15
1,2-Dichlorobenzene	0.150		20.0	14.0		ug/L		69	55 - 140	10	20

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0595-MSD1
Matrix: Water - NonPotable
Analysis Batch: 12E0595

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 12E0595_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichlorobenzene	0.100		20.0	14.1		ug/L		70	55 - 135	3	15
1,4-Dichlorobenzene	0.120		20.0	13.9		ug/L		69	55 - 140	7	15
Dichlorodifluoromethane	<0.200		20.0	10.5		ug/L		52	15 - 130	12	25
1,1-Dichloroethane	<0.210		20.0	13.7		ug/L		69	50 - 130	11	25
1,2-Dichloroethane	<0.180		20.0	15.8		ug/L		79	55 - 140	15	15
1,1-Dichloroethene	0.0100		20.0	10.6		ug/L		53	35 - 135	4	30
cis-1,2-Dichloroethene	0.0200		20.0	15.0		ug/L		75	45 - 135	8	20
trans-1,2-Dichloroethene	<0.210		20.0	14.2		ug/L		71	45 - 145	7	35
1,2-Dichloropropane	<0.870		20.0	16.1		ug/L		81	55 - 130	10	15
1,3-Dichloropropane	0.0100		20.0	16.3		ug/L		81	60 - 135	14	15
2,2-Dichloropropane	<0.180		20.0	11.9		ug/L		59	20 - 120	8	35
1,1-Dichloropropene	<0.150		20.0	11.0		ug/L		55	40 - 140	9	20
cis-1,3-Dichloropropene	<0.150		20.0	14.7		ug/L		74	25 - 120	17	20
trans-1,3-Dichloropropene	0.0500		20.0	12.7	R	ug/L		63	25 - 120	29	20
Ethylbenzene	0.0400		20.0	12.7		ug/L		63	45 - 135	7	20
Hexachlorobutadiene	1.03		20.0	8.68	M1	ug/L		38	40 - 135	27	30
Hexane	0.0100		20.0	8.55		ug/L		43	25 - 135	7	35
Isopropylbenzene	0.0300		20.0	12.4		ug/L		62	45 - 125	0	15
p-Isopropyltoluene	0.0900		20.0	11.4		ug/L		57	40 - 140	0.3	20
Methylene Chloride	0.390		20.0	15.9		ug/L		78	45 - 145	12	30
Methyl tert-Butyl Ether	0.0100		20.0	15.3		ug/L		76	40 - 135	20	25
Naphthalene	1.30		20.0	11.1	M1	ug/L		49	40 - 135	21	20
n-Propylbenzene	0.0700		20.0	12.5		ug/L		62	45 - 140	1	20
Styrene	0.0100		20.0	14.1		ug/L		71	40 - 135	12	20
1,1,1,2-Tetrachloroethane	<0.210		20.0	13.9		ug/L		69	50 - 130	7	20
1,1,2,2-Tetrachloroethane	0.0100		20.0	13.0	R	ug/L		65	55 - 140	28	20
Tetrachloroethene	<0.180		20.0	11.0		ug/L		55	40 - 135	2	20
Toluene	0.0100		20.0	13.1		ug/L		66	45 - 135	10	20
1,2,3-Trichlorobenzene	1.45		20.0	13.3		ug/L		59	50 - 140	6	25
1,2,4-Trichlorobenzene	1.03		20.0	13.7		ug/L		63	40 - 135	5	25
1,1,1-Trichloroethane	<0.120		20.0	11.8		ug/L		59	40 - 125	12	20
1,1,2-Trichloroethane	<0.120		20.0	15.4	M1	ug/L		77	60 - 130	26	15
Trichloroethene	<0.190		20.0	13.4		ug/L		67	50 - 130	11	20
Trichlorofluoromethane	0.0200		20.0	15.9		ug/L		79	40 - 145	8	25
1,2,3-Trichloropropane	<0.190		20.0	12.5	M1	ug/L		63	55 - 150	23	20
1,2,4-Trimethylbenzene	0.0800		20.0	14.2		ug/L		70	45 - 140	3	20
1,3,5-Trimethylbenzene	0.0500		20.0	13.6		ug/L		68	45 - 140	2	20
Vinyl chloride	0.0400		20.0	12.4		ug/L		62	30 - 135	13	20
Xylenes, total	<0.130		60.0	41.1		ug/L		68	40 - 135	8	20

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Dibromofluoromethane	*93*		*75 - 120*
Toluene-d8	*90*		*80 - 120*
4-Bromofluorobenzene	*105*		*80 - 120*

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0709-BLK1
Matrix: Solid/Soil
Analysis Batch: 12E0709

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0709_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Benzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Bromobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Bromochloromethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Bromodichloromethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Bromoform	<500		500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Bromomethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
2-Butanone (MEK)	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
n-Butylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
sec-Butylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
tert-Butylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Carbon disulfide	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Carbon Tetrachloride	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Chlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Chlorodibromomethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Chloroethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Chloroform	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Chloromethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
2-Chlorotoluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
4-Chlorotoluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2-Dibromo-3-chloropropane	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2-Dibromoethane (EDB)	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Dibromomethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2-Dichlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,3-Dichlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,4-Dichlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Dichlorodifluoromethane	<750		750		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1-Dichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2-Dichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1-Dichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
cis-1,2-Dichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
trans-1,2-Dichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2-Dichloropropane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,3-Dichloropropane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
2,2-Dichloropropane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1-Dichloropropene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
cis-1,3-Dichloropropene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
trans-1,3-Dichloropropene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Ethylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Hexachlorobutadiene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Hexane	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Isopropylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
p-Isopropyltoluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Methylene Chloride	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Methyl tert-Butyl Ether	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Naphthalene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
n-Propylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Styrene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1,1,2-Tetrachloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0709-BLK1
Matrix: Solid/Soil
Analysis Batch: 12E0709

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0709_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Tetrachloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Toluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2,3-Trichlorobenzene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2,4-Trichlorobenzene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1,1-Trichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1,2-Trichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Trichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Trichlorofluoromethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2,3-Trichloropropane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2,4-Trimethylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,3,5-Trimethylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Vinyl chloride	<750		750		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Xylenes, total	<750		750		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 06:52*	*50.0*
Toluene-d8	*98*		*80 - 120*	*05/12/12 00:00*	*05/12/12 06:52*	*50.0*
4-Bromofluorobenzene	*97*		*80 - 120*	*05/12/12 00:00*	*05/12/12 06:52*	*50.0*

Lab Sample ID: 12E0709-BS1
Matrix: Solid/Soil
Analysis Batch: 12E0709

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0709_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	967	1150		ug/kg wet		119	65 - 150
Benzene	967	1080		ug/kg wet		111	55 - 135
Bromobenzene	967	1080		ug/kg wet		112	65 - 125
Bromochloromethane	967	1090		ug/kg wet		112	65 - 130
Bromodichloromethane	967	999		ug/kg wet		103	65 - 130
Bromoform	967	938		ug/kg wet		97	50 - 135
Bromomethane	967	988		ug/kg wet		102	45 - 135
2-Butanone (MEK)	967	1020		ug/kg wet		105	50 - 145
n-Butylbenzene	967	1090		ug/kg wet		113	55 - 130
sec-Butylbenzene	967	1110		ug/kg wet		114	60 - 125
tert-Butylbenzene	967	1100		ug/kg wet		114	55 - 125
Carbon disulfide	967	950		ug/kg wet		98	40 - 135
Carbon Tetrachloride	967	1090		ug/kg wet		112	55 - 130
Chlorobenzene	967	1100		ug/kg wet		114	60 - 120
Chlorodibromomethane	967	1010		ug/kg wet		105	55 - 130
Chloroethane	967	638		ug/kg wet		66	50 - 145
Chloroform	967	1040		ug/kg wet		108	65 - 130
Chloromethane	967	891		ug/kg wet		92	40 - 135
2-Chlorotoluene	967	1070		ug/kg wet		110	60 - 125
4-Chlorotoluene	967	1050		ug/kg wet		109	60 - 125
1,2-Dibromo-3-chloropropane	967	856		ug/kg wet		88	50 - 140
1,2-Dibromoethane (EDB)	967	1050		ug/kg wet		109	55 - 140
Dibromomethane	967	999		ug/kg wet		103	65 - 135
1,2-Dichlorobenzene	967	1100		ug/kg wet		113	65 - 120

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0709-BS1
Matrix: Solid/Soil
Analysis Batch: 12E0709

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0709_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	967	1060		ug/kg wet		110	60 - 125
1,4-Dichlorobenzene	967	1070		ug/kg wet		111	60 - 125
Dichlorodifluoromethane	967	640		ug/kg wet		66	40 - 135
1,1-Dichloroethane	967	1010		ug/kg wet		105	55 - 135
1,2-Dichloroethane	967	1060		ug/kg wet		109	60 - 140
1,1-Dichloroethene	967	939		ug/kg wet		97	50 - 145
cis-1,2-Dichloroethene	967	1140		ug/kg wet		118	60 - 135
trans-1,2-Dichloroethene	967	1010		ug/kg wet		105	55 - 135
1,2-Dichloropropane	967	1060		ug/kg wet		109	55 - 130
1,3-Dichloropropane	967	1060		ug/kg wet		110	55 - 140
2,2-Dichloropropane	967	925		ug/kg wet		96	40 - 135
1,1-Dichloropropene	967	1070		ug/kg wet		111	55 - 130
cis-1,3-Dichloropropene	967	1050		ug/kg wet		109	50 - 115
trans-1,3-Dichloropropene	967	983		ug/kg wet		102	55 - 130
Ethylbenzene	967	1100		ug/kg wet		114	60 - 125
Hexachlorobutadiene	967	1080		ug/kg wet		112	40 - 135
Hexane	967	780		ug/kg wet		81	45 - 140
Isopropylbenzene	967	1100		ug/kg wet		114	60 - 125
p-Isopropyltoluene	967	1090		ug/kg wet		113	60 - 120
Methylene Chloride	967	1060		ug/kg wet		110	55 - 145
Methyl tert-Butyl Ether	967	1020		ug/kg wet		106	55 - 130
Naphthalene	967	1010		ug/kg wet		105	50 - 130
n-Propylbenzene	967	1100		ug/kg wet		114	50 - 125
Styrene	967	1080		ug/kg wet		112	60 - 125
1,1,1,2-Tetrachloroethane	967	1090		ug/kg wet		112	65 - 125
1,1,2,2-Tetrachloroethane	967	1000		ug/kg wet		104	60 - 125
Tetrachloroethene	967	1100		ug/kg wet		114	55 - 125
Toluene	967	1080		ug/kg wet		112	60 - 130
1,2,3-Trichlorobenzene	967	1060		ug/kg wet		109	50 - 130
1,2,4-Trichlorobenzene	967	1030		ug/kg wet		106	45 - 135
1,1,1-Trichloroethane	967	1080		ug/kg wet		112	60 - 125
1,1,2-Trichloroethane	967	1070		ug/kg wet		110	55 - 135
Trichloroethene	967	995		ug/kg wet		103	60 - 130
Trichlorofluoromethane	967	562		ug/kg wet		58	50 - 145
1,2,3-Trichloropropane	967	1020		ug/kg wet		105	50 - 145
1,2,4-Trimethylbenzene	967	1010		ug/kg wet		104	55 - 125
1,3,5-Trimethylbenzene	967	1060		ug/kg wet		110	50 - 130
Vinyl chloride	967	1060		ug/kg wet		110	45 - 140
Xylenes, total	2900	3250		ug/kg wet		112	50 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*100*		*75 - 125*
Toluene-d8	*100*		*80 - 120*
4-Bromofluorobenzene	*100*		*80 - 120*

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0709-BSD1
Matrix: Solid/Soil
Analysis Batch: 12E0709

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E0709_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	983	1090		ug/kg wet		111	65 - 150	6	40
Benzene	983	970		ug/kg wet		99	55 - 135	10	25
Bromobenzene	983	961		ug/kg wet		98	65 - 125	12	35
Bromochloromethane	983	963		ug/kg wet		98	65 - 130	12	35
Bromodichloromethane	983	891		ug/kg wet		91	65 - 130	11	30
Bromoform	983	775		ug/kg wet		79	50 - 135	19	40
Bromomethane	983	789		ug/kg wet		80	45 - 135	22	40
2-Butanone (MEK)	983	896		ug/kg wet		91	50 - 145	13	40
n-Butylbenzene	983	950		ug/kg wet		97	55 - 130	14	30
sec-Butylbenzene	983	972		ug/kg wet		99	60 - 125	13	30
tert-Butylbenzene	983	968		ug/kg wet		99	55 - 125	13	25
Carbon disulfide	983	871		ug/kg wet		89	40 - 135	9	40
Carbon Tetrachloride	983	959		ug/kg wet		98	55 - 130	12	30
Chlorobenzene	983	972		ug/kg wet		99	60 - 120	12	30
Chlorodibromomethane	983	885		ug/kg wet		90	55 - 130	13	40
Chloroethane	983	567		ug/kg wet		58	50 - 145	12	40
Chloroform	983	914		ug/kg wet		93	65 - 130	13	30
Chloromethane	983	759		ug/kg wet		77	40 - 135	16	40
2-Chlorotoluene	983	947		ug/kg wet		96	60 - 125	12	35
4-Chlorotoluene	983	930		ug/kg wet		95	60 - 125	12	35
1,2-Dibromo-3-chloropropane	983	743		ug/kg wet		76	50 - 140	14	35
1,2-Dibromoethane (EDB)	983	916		ug/kg wet		93	55 - 140	14	30
Dibromomethane	983	867		ug/kg wet		88	65 - 135	14	30
1,2-Dichlorobenzene	983	940		ug/kg wet		96	65 - 120	15	30
1,3-Dichlorobenzene	983	924		ug/kg wet		94	60 - 125	14	30
1,4-Dichlorobenzene	983	926		ug/kg wet		94	60 - 125	15	30
Dichlorodifluoromethane	983	581		ug/kg wet		59	40 - 135	10	35
1,1-Dichloroethane	983	926		ug/kg wet		94	55 - 135	9	40
1,2-Dichloroethane	983	921		ug/kg wet		94	60 - 140	14	30
1,1-Dichloroethene	983	829		ug/kg wet		84	50 - 145	12	40
cis-1,2-Dichloroethene	983	943		ug/kg wet		96	60 - 135	19	40
trans-1,2-Dichloroethene	983	916		ug/kg wet		93	55 - 135	10	40
1,2-Dichloropropane	983	922		ug/kg wet		94	55 - 130	14	30
1,3-Dichloropropane	983	936		ug/kg wet		95	55 - 140	12	30
2,2-Dichloropropane	983	779		ug/kg wet		79	40 - 135	17	45
1,1-Dichloropropene	983	953		ug/kg wet		97	55 - 130	12	30
cis-1,3-Dichloropropene	983	907		ug/kg wet		92	50 - 115	15	35
trans-1,3-Dichloropropene	983	867		ug/kg wet		88	55 - 130	13	30
Ethylbenzene	983	980		ug/kg wet		100	60 - 125	12	30
Hexachlorobutadiene	983	903		ug/kg wet		92	40 - 135	18	35
Hexane	983	783		ug/kg wet		80	45 - 140	0.4	35
Isopropylbenzene	983	982		ug/kg wet		100	60 - 125	11	35
p-Isopropyltoluene	983	962		ug/kg wet		98	60 - 120	12	30
Methylene Chloride	983	980		ug/kg wet		100	55 - 145	8	40
Methyl tert-Butyl Ether	983	914		ug/kg wet		93	55 - 130	11	30
Naphthalene	983	858		ug/kg wet		87	50 - 130	17	30
n-Propylbenzene	983	969		ug/kg wet		99	50 - 125	12	35
Styrene	983	954		ug/kg wet		97	60 - 125	13	35
1,1,1,2-Tetrachloroethane	983	930		ug/kg wet		95	65 - 125	15	30

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0709-BSD1 | **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid/Soil | **Prep Type: Total**
Analysis Batch: 12E0709 | **Prep Batch: 12E0709_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2,2-Tetrachloroethane	983	862		ug/kg wet		88	60 - 125	15	35
Tetrachloroethene	983	960		ug/kg wet		98	55 - 125	14	40
Toluene	983	964		ug/kg wet		98	60 - 130	12	35
1,2,3-Trichlorobenzene	983	887		ug/kg wet		90	50 - 130	18	35
1,2,4-Trichlorobenzene	983	874		ug/kg wet		89	45 - 135	16	35
1,1,1-Trichloroethane	983	972		ug/kg wet		99	60 - 125	10	30
1,1,2-Trichloroethane	983	941		ug/kg wet		96	55 - 135	12	30
Trichloroethene	983	894		ug/kg wet		91	60 - 130	11	30
Trichlorofluoromethane	983	569		ug/kg wet		58	50 - 145	1	40
1,2,3-Trichloropropane	983	868		ug/kg wet		88	50 - 145	16	35
1,2,4-Trimethylbenzene	983	891		ug/kg wet		91	55 - 125	12	35
1,3,5-Trimethylbenzene	983	937		ug/kg wet		95	50 - 130	12	35
Vinyl chloride	983	878		ug/kg wet		89	45 - 140	19	40
Xylenes, total	2950	2880		ug/kg wet		98	50 - 130	12	30

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*100*		*75 - 125*
Toluene-d8	*100*		*80 - 120*
4-Bromofluorobenzene	*99*		*80 - 120*

Lab Sample ID: 12E0839-BLK1 | **Client Sample ID: Method Blank**
Matrix: Solid/Soil | **Prep Type: Total**
Analysis Batch: 12E0839 | **Prep Batch: 12E0839_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2500		2500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Benzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Bromobenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Bromochloromethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Bromodichloromethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Bromoform	<500		500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Bromomethane	<1000		1000		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
2-Butanone (MEK)	<2500		2500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
n-Butylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
sec-Butylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
tert-Butylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Carbon disulfide	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Carbon Tetrachloride	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Chlorobenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Chlorodibromomethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Chloroethane	<1000		1000		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Chloroform	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Chloromethane	<1000		1000		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
2-Chlorotoluene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
4-Chlorotoluene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2-Dibromo-3-chloropropane	<2500		2500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2-Dibromoethane (EDB)	<2500		2500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Dibromomethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2-Dichlorobenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0839-BLK1
Matrix: Solid/Soil
Analysis Batch: 12E0839

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0839_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,4-Dichlorobenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Dichlorodifluoromethane	<750		750		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1-Dichloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2-Dichloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1-Dichloroethene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
cis-1,2-Dichloroethene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
trans-1,2-Dichloroethene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2-Dichloropropane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,3-Dichloropropane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
2,2-Dichloropropane	<1000		1000		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1-Dichloropropene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
cis-1,3-Dichloropropene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
trans-1,3-Dichloropropene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Ethylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Hexachlorobutadiene	<1250		1250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Hexane	<1250		1250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Isopropylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
p-Isopropyltoluene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Methylene Chloride	<2500		2500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Methyl tert-Butyl Ether	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Naphthalene	<1250		1250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
n-Propylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Styrene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1,1,2-Tetrachloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1,2,2-Tetrachloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Tetrachloroethene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Toluene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2,3-Trichlorobenzene	<1250		1250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2,4-Trichlorobenzene	<1250		1250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1,1-Trichloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1,2-Trichloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Trichloroethene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Trichlorofluoromethane	<1000		1000		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2,3-Trichloropropane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2,4-Trimethylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,3,5-Trimethylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Vinyl chloride	<750		750		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Xylenes, total	<750		750		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*98*		*75 - 125*	*05/15/12 00:00*	*05/15/12 15:24*	*50.0*
Toluene-d8	*100*		*80 - 120*	*05/15/12 00:00*	*05/15/12 15:24*	*50.0*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/15/12 00:00*	*05/15/12 15:24*	*50.0*

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0839-BS1
Matrix: Solid/Soil
Analysis Batch: 12E0839

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0839_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	961	1190		ug/kg wet		124	65 - 150
Benzene	961	1110		ug/kg wet		116	55 - 135
Bromobenzene	961	1100		ug/kg wet		115	65 - 125
Bromochloromethane	961	1160		ug/kg wet		120	65 - 130
Bromodichloromethane	961	1010		ug/kg wet		105	65 - 130
Bromoform	961	854		ug/kg wet		89	50 - 135
Bromomethane	961	672		ug/kg wet		70	45 - 135
2-Butanone (MEK)	961	1220		ug/kg wet		127	50 - 145
n-Butylbenzene	961	1130		ug/kg wet		117	55 - 130
sec-Butylbenzene	961	1110		ug/kg wet		116	60 - 125
tert-Butylbenzene	961	1100		ug/kg wet		115	55 - 125
Carbon disulfide	961	872		ug/kg wet		91	40 - 135
Carbon Tetrachloride	961	1020		ug/kg wet		106	55 - 130
Chlorobenzene	961	1080		ug/kg wet		112	60 - 120
Chlorodibromomethane	961	1070		ug/kg wet		112	55 - 130
Chloroethane	961	737		ug/kg wet		77	50 - 145
Chloroform	961	1020		ug/kg wet		106	65 - 130
Chloromethane	961	976		ug/kg wet		102	40 - 135
2-Chlorotoluene	961	1120		ug/kg wet		116	60 - 125
4-Chlorotoluene	961	1100		ug/kg wet		115	60 - 125
1,2-Dibromo-3-chloropropane	961	1000		ug/kg wet		104	50 - 140
1,2-Dibromoethane (EDB)	961	1170		ug/kg wet		122	55 - 140
Dibromomethane	961	1110		ug/kg wet		116	65 - 135
1,2-Dichlorobenzene	961	1110		ug/kg wet		115	65 - 120
1,3-Dichlorobenzene	961	1090		ug/kg wet		113	60 - 125
1,4-Dichlorobenzene	961	1100		ug/kg wet		115	60 - 125
Dichlorodifluoromethane	961	1040		ug/kg wet		108	40 - 135
1,1-Dichloroethane	961	1040		ug/kg wet		108	55 - 135
1,2-Dichloroethane	961	1050		ug/kg wet		109	60 - 140
1,1-Dichloroethene	961	984		ug/kg wet		102	50 - 145
cis-1,2-Dichloroethene	961	1080		ug/kg wet		112	60 - 135
trans-1,2-Dichloroethene	961	1070		ug/kg wet		111	55 - 135
1,2-Dichloropropane	961	1080		ug/kg wet		112	55 - 130
1,3-Dichloropropane	961	1160		ug/kg wet		120	55 - 140
2,2-Dichloropropane	961	1120		ug/kg wet		117	40 - 135
1,1-Dichloropropene	961	1110		ug/kg wet		116	55 - 130
cis-1,3-Dichloropropene	961	1140		ug/kg wet		118	50 - 115
trans-1,3-Dichloropropene	961	1060		ug/kg wet		111	55 - 130
Ethylbenzene	961	1090		ug/kg wet		114	60 - 125
Hexachlorobutadiene	961	1210		ug/kg wet		126	40 - 135
Hexane	961	1030		ug/kg wet		108	45 - 140
Isopropylbenzene	961	1110		ug/kg wet		115	60 - 125
p-Isopropyltoluene	961	1080		ug/kg wet		113	60 - 120
Methylene Chloride	961	1090		ug/kg wet		114	55 - 145
Methyl tert-Butyl Ether	961	1200		ug/kg wet		125	55 - 130
Naphthalene	961	1160		ug/kg wet		121	50 - 130
n-Propylbenzene	961	1120		ug/kg wet		117	50 - 125
Styrene	961	1120		ug/kg wet		116	60 - 125
1,1,1,2-Tetrachloroethane	961	1080		ug/kg wet		113	65 - 125

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0839-BS1
Matrix: Solid/Soil
Analysis Batch: 12E0839

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0839_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	961	1170		ug/kg wet		122	60 - 125
Tetrachloroethene	961	1060		ug/kg wet		110	55 - 125
Toluene	961	1100		ug/kg wet		114	60 - 130
1,2,3-Trichlorobenzene	961	1090		ug/kg wet		113	50 - 130
1,2,4-Trichlorobenzene	961	1060		ug/kg wet		110	45 - 135
1,1,1-Trichloroethane	961	1140		ug/kg wet		118	60 - 125
1,1,2-Trichloroethane	961	1170		ug/kg wet		122	55 - 135
Trichloroethene	961	1050		ug/kg wet		110	60 - 130
Trichlorofluoromethane	961	785		ug/kg wet		82	50 - 145
1,2,3-Trichloropropane	961	1200		ug/kg wet		125	50 - 145
1,2,4-Trimethylbenzene	961	1120		ug/kg wet		117	55 - 125
1,3,5-Trimethylbenzene	961	1100		ug/kg wet		114	50 - 130
Vinyl chloride	961	1110		ug/kg wet		115	45 - 140
Xylenes, total	2880	3340		ug/kg wet		116	50 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*96*		*75 - 125*
Toluene-d8	*98*		*80 - 120*
4-Bromofluorobenzene	*98*		*80 - 120*

Lab Sample ID: 12E0839-BSD1
Matrix: Solid/Soil
Analysis Batch: 12E0839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E0839_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	951	1200		ug/kg wet		127	65 - 150	1	40
Benzene	951	1010		ug/kg wet		107	55 - 135	9	25
Bromobenzene	951	1020		ug/kg wet		107	65 - 125	8	35
Bromochloromethane	951	1020		ug/kg wet		108	65 - 130	12	35
Bromodichloromethane	951	952		ug/kg wet		100	65 - 130	6	30
Bromoform	951	767		ug/kg wet		81	50 - 135	11	40
Bromomethane	951	716		ug/kg wet		75	45 - 135	6	40
2-Butanone (MEK)	951	1030		ug/kg wet		108	50 - 145	17	40
n-Butylbenzene	951	1070		ug/kg wet		112	55 - 130	6	30
sec-Butylbenzene	951	1030		ug/kg wet		109	60 - 125	8	30
tert-Butylbenzene	951	1040		ug/kg wet		110	55 - 125	6	25
Carbon disulfide	951	813		ug/kg wet		85	40 - 135	7	40
Carbon Tetrachloride	951	908		ug/kg wet		95	55 - 130	12	30
Chlorobenzene	951	1030		ug/kg wet		109	60 - 120	4	30
Chlorodibromomethane	951	951		ug/kg wet		100	55 - 130	12	40
Chloroethane	951	727		ug/kg wet		76	50 - 145	1	40
Chloroform	951	938		ug/kg wet		99	65 - 130	8	30
Chloromethane	951	966		ug/kg wet		102	40 - 135	1	40
2-Chlorotoluene	951	1050		ug/kg wet		111	60 - 125	6	35
4-Chlorotoluene	951	1060		ug/kg wet		111	60 - 125	4	35
1,2-Dibromo-3-chloropropane	951	879		ug/kg wet		92	50 - 140	13	35
1,2-Dibromoethane (EDB)	951	1040		ug/kg wet		110	55 - 140	12	30
Dibromomethane	951	1020		ug/kg wet		108	65 - 135	8	30
1,2-Dichlorobenzene	951	1040		ug/kg wet		109	65 - 120	7	30

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0839-BSD1
Matrix: Solid/Soil
Analysis Batch: 12E0839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E0839_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichlorobenzene			951	1030		ug/kg wet		109	60 - 125	5	30
1,4-Dichlorobenzene			951	1030		ug/kg wet		109	60 - 125	7	30
Dichlorodifluoromethane			951	1010		ug/kg wet		107	40 - 135	3	35
1,1-Dichloroethane			951	887		ug/kg wet		93	55 - 135	16	40
1,2-Dichloroethane			951	968		ug/kg wet		102	60 - 140	8	30
1,1-Dichloroethene			951	851		ug/kg wet		89	50 - 145	14	40
cis-1,2-Dichloroethene			951	1000		ug/kg wet		105	60 - 135	7	40
trans-1,2-Dichloroethene			951	986		ug/kg wet		104	55 - 135	8	40
1,2-Dichloropropane			951	1010		ug/kg wet		107	55 - 130	6	30
1,3-Dichloropropane			951	1030		ug/kg wet		108	55 - 140	12	30
2,2-Dichloropropane			951	1020		ug/kg wet		108	40 - 135	9	45
1,1-Dichloropropene			951	1020		ug/kg wet		107	55 - 130	9	30
cis-1,3-Dichloropropene			951	1040		ug/kg wet		110	50 - 115	8	35
trans-1,3-Dichloropropene			951	970		ug/kg wet		102	55 - 130	9	30
Ethylbenzene			951	1020		ug/kg wet		108	60 - 125	7	30
Hexachlorobutadiene			951	1180		ug/kg wet		124	40 - 135	3	35
Hexane			951	924		ug/kg wet		97	45 - 140	11	35
Isopropylbenzene			951	1040		ug/kg wet		109	60 - 125	7	35
p-Isopropyltoluene			951	1040		ug/kg wet		109	60 - 120	4	30
Methylene Chloride			951	1030		ug/kg wet		108	55 - 145	6	40
Methyl tert-Butyl Ether			951	1080		ug/kg wet		114	55 - 130	11	30
Naphthalene			951	1100		ug/kg wet		115	50 - 130	6	30
n-Propylbenzene			951	1060		ug/kg wet		112	50 - 125	5	35
Styrene			951	1050		ug/kg wet		111	60 - 125	6	35
1,1,1,2-Tetrachloroethane			951	983		ug/kg wet		103	65 - 125	10	30
1,1,2,2-Tetrachloroethane			951	1030		ug/kg wet		109	60 - 125	13	35
Tetrachloroethene			951	994		ug/kg wet		104	55 - 125	7	40
Toluene			951	1030		ug/kg wet		108	60 - 130	7	35
1,2,3-Trichlorobenzene			951	1040		ug/kg wet		110	50 - 130	4	35
1,2,4-Trichlorobenzene			951	1010		ug/kg wet		106	45 - 135	5	35
1,1,1-Trichloroethane			951	1000		ug/kg wet		106	60 - 125	13	30
1,1,2-Trichloroethane			951	1040		ug/kg wet		109	55 - 135	12	30
Trichloroethene			951	992		ug/kg wet		104	60 - 130	6	30
Trichlorofluoromethane			951	943		ug/kg wet		99	50 - 145	18	40
1,2,3-Trichloropropane			951	971		ug/kg wet		102	50 - 145	21	35
1,2,4-Trimethylbenzene			951	1050		ug/kg wet		111	55 - 125	6	35
1,3,5-Trimethylbenzene			951	1040		ug/kg wet		109	50 - 130	5	35
Vinyl chloride			951	1090		ug/kg wet		115	45 - 140	0.9	40
Xylenes, total			2850	3130		ug/kg wet		110	50 - 130	6	30

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*97*		*75 - 125*
Toluene-d8	*100*		*80 - 120*
4-Bromofluorobenzene	*102*		*80 - 120*

QC Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Lab Sample ID: 12E0361-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000833 — **Prep Batch: 12E0361_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 13:28	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 13:28	1.00
Motor Oil	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 13:28	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*80*		*60 - 145*	*05/07/12 12:01*	*05/09/12 13:28*	*1.00*

Lab Sample ID: 12E0361-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000833 — **Prep Batch: 12E0361_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel			80.0	61.0		mg/kg		76	45 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Octacosane	*81*		*60 - 150*

Lab Sample ID: 12E0361-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000852 — **Prep Batch: 12E0361_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel	<1.21		77.3	52.6		mg/kg		68	30 - 125		

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Octacosane	*64*		*60 - 150*

Lab Sample ID: 12E0361-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000833 — **Prep Batch: 12E0361_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel	<1.21		77.2	47.6		mg/kg		62	30 - 125	10	40

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Octacosane	*66*		*60 - 150*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Lab Sample ID: 12E0436-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0436 — **Prep Batch: 12E0436_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0200		0.0200		mg/kg wet		05/08/12 13:38	05/08/12 15:42	1.00

Method: SW 7471B - Total Metals by SW 846 Series Methods (Continued)

Lab Sample ID: 12E0436-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0436 — **Prep Batch: 12E0436_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.161	0.150		mg/kg wet		93	80 - 120

Lab Sample ID: 12E0436-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0436 — **Prep Batch: 12E0436_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0556		0.182	0.212		mg/kg dry	☼	86	70 - 130

Lab Sample ID: 12E0436-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0436 — **Prep Batch: 12E0436_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0556		0.188	0.198		mg/kg dry	☼	76	70 - 130	7	20

Method: SW 6010C - Total Metals by SW 846 Series Methods

Lab Sample ID: 12E0416-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0416 — **Prep Batch: 12E0416_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<4.00		4.00		mg/kg wet		05/08/12 10:26	05/09/12 11:03	1.00
Barium	<0.500		0.500		mg/kg wet		05/08/12 10:26	05/09/12 11:03	1.00
Cadmium	<1.00		1.00		mg/kg wet		05/08/12 10:26	05/09/12 11:03	1.00
Chromium	<1.00		1.00		mg/kg wet		05/08/12 10:26	05/09/12 11:03	1.00
Lead	<5.00		5.00		mg/kg wet		05/08/12 10:26	05/09/12 11:03	1.00
Selenium	<7.50		7.50		mg/kg wet		05/08/12 10:26	05/09/12 11:03	1.00
Silver	<1.00		1.00		mg/kg wet		05/08/12 10:26	05/09/12 11:03	1.00

Lab Sample ID: 12E0416-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0416 — **Prep Batch: 12E0416_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	94.7	89.5		mg/kg wet		95	80 - 115
Barium	47.3	47.9		mg/kg wet		101	80 - 110
Cadmium	47.3	49.0		mg/kg wet		104	80 - 115
Chromium	47.3	49.4		mg/kg wet		104	85 - 110
Lead	94.7	86.6		mg/kg wet		91	80 - 115
Selenium	189	178		mg/kg wet		94	85 - 110
Silver	47.3	47.5		mg/kg wet		100	80 - 120

Lab Sample ID: 12E0416-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0416 — **Prep Batch: 12E0416_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<18.9		995	931		mg/kg dry	☼	94	75 - 125

Method: SW 6010C - Total Metals by SW 846 Series Methods (Continued)

Lab Sample ID: 12E0416-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0416 — **Prep Batch: 12E0416_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	411		497	908		mg/kg dry	☼	100	75 - 125
Cadmium	0.957		497	462		mg/kg dry	☼	93	75 - 125
Chromium	39.6		497	507		mg/kg dry	☼	94	75 - 120
Lead	33.4		995	899		mg/kg dry	☼	87	75 - 125
Selenium	<31.0		1990	1840		mg/kg dry	☼	93	75 - 115
Silver	8.60		497	457		mg/kg dry	☼	90	75 - 110

Lab Sample ID: 12E0416-MS2 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0416 — **Prep Batch: 12E0416_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<4.83		252	238		mg/kg dry	☼	95	75 - 125
Barium	12.5		126	141		mg/kg dry	☼	102	75 - 125
Cadmium	0.247		126	120		mg/kg dry	☼	95	75 - 125
Chromium	5.56		126	129		mg/kg dry	☼	98	75 - 120
Lead	3.56		252	225		mg/kg dry	☼	88	75 - 125
Selenium	<7.91		504	470		mg/kg dry	☼	93	75 - 115
Silver	<0.349		126	127		mg/kg dry	☼	100	75 - 110

Lab Sample ID: 12E0416-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0416 — **Prep Batch: 12E0416_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Du Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	<18.9		1050	985		mg/kg dry	☼	94	75 - 125	6	20
Barium	411		525	948		mg/kg dry	☼	102	75 - 125	4	20
Cadmium	0.957		525	492		mg/kg dry	☼	94	75 - 125	6	20
Chromium	39.6		525	539		mg/kg dry	☼	95	75 - 120	6	20
Lead	33.4		1050	951		mg/kg dry	☼	87	75 - 125	6	20
Selenium	<31.0		2100	1950		mg/kg dry	☼	93	75 - 115	6	20
Silver	8.60		525	495		mg/kg dry	☼	93	75 - 110	8	20

Lab Sample ID: 12E0416-DUP1 — **Client Sample ID: Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0416 — **Prep Batch: 12E0416_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Arsenic	4.54		<4.64		mg/kg dry	☼		15
Barium	31.1		44.1	R	mg/kg dry	☼	35	20
Cadmium	1.41		<1.16		mg/kg dry	☼		20
Chromium	6.66		5.55		mg/kg dry	☼	18	20
Lead	84.8		94.4		mg/kg dry	☼	11	20
Selenium	<6.84		<8.69		mg/kg dry	☼		20
Silver	1.11		0.481		mg/kg dry	☼	79	20

QC Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Method: 9071B - HEM and SGT-HEM

Lab Sample ID: MB 500-149680/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149727 — **Prep Batch: 149680**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	130	J	500	96	mg/Kg		05/15/12 07:00	05/15/12 11:10	1

Lab Sample ID: LCS 500-149680/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149727 — **Prep Batch: 149680**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	4000	4240		mg/Kg		106	80 - 120

Method: SM 2540 G - General Chemistry Parameters

Lab Sample ID: 12E0302-DUP1 — **Client Sample ID: Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0302 — **Prep Batch: 12E0302_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
% Solids	91.8		91.3		%		0.6	10

Lab Sample ID: 12E0302-DUP2 — **Client Sample ID: Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0302 — **Prep Batch: 12E0302_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
% Solids	94.3		95.8		%		2	10

Lab Sample ID: 12E0303-DUP1 — **Client Sample ID: SB-17(MIP-20) 10-12**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0303 — **Prep Batch: 12E0303_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
% Solids	86.1		85.8		%		0.3	10

QC Association Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

GCMS Volatiles

Analysis Batch: 12E0396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0462-13	Trip Blank	Total	Water	SW 9041A	12E0396_P

Analysis Batch: 12E0595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0595-BLK1	Method Blank	Total	Water - NonPotable	SW 8260B	12E0595_P
12E0595-BS1	Lab Control Sample	Total	Water - NonPotable	SW 8260B	12E0595_P
12E0595-MS1	Matrix Spike	Total	Water - NonPotable	SW 8260B	12E0595_P
12E0595-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SW 8260B	12E0595_P
CVE0462-13	Trip Blank	Total	Water	SW 8260B	12E0595_P

Analysis Batch: 12E0709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0709-BLK1	Method Blank	Total	Solid/Soil	SW 8260B	12E0709_P
12E0709-BS1	Lab Control Sample	Total	Solid/Soil	SW 8260B	12E0709_P
12E0709-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 8260B	12E0709_P
CVE0462-01	SB-14(MIP-21) 07-09	Total	Soil	SW 8260B	12E0709_P
CVE0462-02	SB-14(MIP-21) 12-14	Total	Soil	SW 8260B	12E0709_P
CVE0462-03	SB-14(MIP-21) 23-25	Total	Soil	SW 8260B	12E0709_P
CVE0462-04	SB-15(MIP-3) 13-15	Total	Soil	SW 8260B	12E0709_P
CVE0462-05	SB-15(MIP-3) 19-21	Total	Soil	SW 8260B	12E0709_P
CVE0462-06	SB-16(MIP-05) 12-14	Total	Soil	SW 8260B	12E0709_P
CVE0462-07	Duplicate-4	Total	Soil	SW 8260B	12E0709_P
CVE0462-08	SB-16(MIP-05) 18-20	Total	Soil	SW 8260B	12E0709_P
CVE0462-09	SB-16(MIP-05) 24-26	Total	Soil	SW 8260B	12E0709_P
CVE0462-10	SB-17(MIP-20) 02-04	Total	Soil	SW 8260B	12E0709_P
CVE0462-11	SB-17(MIP-20) 10-12	Total	Soil	SW 8260B	12E0709_P
CVE0462-12	Duplicate-5	Total	Soil	SW 8260B	12E0709_P

Analysis Batch: 12E0839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0839-BLK1	Method Blank	Total	Solid/Soil	SW 8260B	12E0839_P
12E0839-BS1	Lab Control Sample	Total	Solid/Soil	SW 8260B	12E0839_P
12E0839-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 8260B	12E0839_P
CVE0462-02 - RE1	SB-14(MIP-21) 12-14	Total	Soil	SW 8260B	12E0839_P
CVE0462-04 - RE1	SB-15(MIP-3) 13-15	Total	Soil	SW 8260B	12E0839_P

Prep Batch: 12E0396_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0462-13	Trip Blank	Total	Water	Default Prep VOC	

Prep Batch: 12E0595_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0595-BLK1	Method Blank	Total	Water - NonPotable	SW 5030B	
12E0595-BS1	Lab Control Sample	Total	Water - NonPotable	SW 5030B	
12E0595-MS1	Matrix Spike	Total	Water - NonPotable	SW 5030B	

GCMS Volatiles (Continued)

Prep Batch: 12E0595_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0595-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SW 5030B	
CVE0462-13	Trip Blank	Total	Water	SW 5030B	

Prep Batch: 12E0709_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0709-BLK1	Method Blank	Total	Solid/Soil	SW 5035	
12E0709-BS1	Lab Control Sample	Total	Solid/Soil	SW 5035	
12E0709-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 5035	
CVE0462-01	SB-14(MIP-21) 07-09	Total	Soil	SW 5035	
CVE0462-02	SB-14(MIP-21) 12-14	Total	Soil	SW 5035	
CVE0462-03	SB-14(MIP-21) 23-25	Total	Soil	SW 5035	
CVE0462-04	SB-15(MIP-3) 13-15	Total	Soil	SW 5035	
CVE0462-05	SB-15(MIP-3) 19-21	Total	Soil	SW 5035	
CVE0462-06	SB-16(MIP-05) 12-14	Total	Soil	SW 5035	
CVE0462-07	Duplicate-4	Total	Soil	SW 5035	
CVE0462-08	SB-16(MIP-05) 18-20	Total	Soil	SW 5035	
CVE0462-09	SB-16(MIP-05) 24-26	Total	Soil	SW 5035	
CVE0462-10	SB-17(MIP-20) 02-04	Total	Soil	SW 5035	
CVE0462-11	SB-17(MIP-20) 10-12	Total	Soil	SW 5035	
CVE0462-12	Duplicate-5	Total	Soil	SW 5035	

Prep Batch: 12E0839_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0839-BLK1	Method Blank	Total	Solid/Soil	SW 5035	
12E0839-BS1	Lab Control Sample	Total	Solid/Soil	SW 5035	
12E0839-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 5035	
CVE0462-02 - RE1	SB-14(MIP-21) 12-14	Total	Soil	SW 5035	
CVE0462-04 - RE1	SB-15(MIP-3) 13-15	Total	Soil	SW 5035	

GC Semivolatiles

Analysis Batch: V000833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0361-BLK1	Method Blank	Total	Solid/Soil	OA-2 - 8015B	12E0361_P
12E0361-BS1	Lab Control Sample	Total	Solid/Soil	OA-2 - 8015B	12E0361_P
12E0361-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	OA-2 - 8015B	12E0361_P
CVE0462-06	SB-16(MIP-05) 12-14	Total	Soil	OA-2 - 8015B	12E0361_P
CVE0462-07	Duplicate-4	Total	Soil	OA-2 - 8015B	12E0361_P
CVE0462-08	SB-16(MIP-05) 18-20	Total	Soil	OA-2 - 8015B	12E0361_P
CVE0462-09	SB-16(MIP-05) 24-26	Total	Soil	OA-2 - 8015B	12E0361_P
CVE0462-10	SB-17(MIP-20) 02-04	Total	Soil	OA-2 - 8015B	12E0361_P
CVE0462-11	SB-17(MIP-20) 10-12	Total	Soil	OA-2 - 8015B	12E0361_P
CVE0462-12	Duplicate-5	Total	Soil	OA-2 - 8015B	12E0361_P

Analysis Batch: V000852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0361-MS1	Matrix Spike	Total	Solid/Soil	OA-2 - 8015B	12E0361_P

Prep Batch: 12E0361_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0361-BLK1	Method Blank	Total	Solid/Soil	SW 3546 GC	

GC Semivolatiles (Continued)

Prep Batch: 12E0361_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0361-BS1	Lab Control Sample	Total	Solid/Soil	SW 3546 GC	
12E0361-MS1	Matrix Spike	Total	Solid/Soil	SW 3546 GC	
12E0361-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 3546 GC	
CVE0462-06	SB-16(MIP-05) 12-14	Total	Soil	SW 3546 GC	
CVE0462-07	Duplicate-4	Total	Soil	SW 3546 GC	
CVE0462-08	SB-16(MIP-05) 18-20	Total	Soil	SW 3546 GC	
CVE0462-09	SB-16(MIP-05) 24-26	Total	Soil	SW 3546 GC	
CVE0462-10	SB-17(MIP-20) 02-04	Total	Soil	SW 3546 GC	
CVE0462-11	SB-17(MIP-20) 10-12	Total	Soil	SW 3546 GC	
CVE0462-12	Duplicate-5	Total	Soil	SW 3546 GC	

Mercury

Analysis Batch: 12E0436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0436-BLK1	Method Blank	Total	Solid/Soil	SW 7471B	12E0436_P
12E0436-BS1	Lab Control Sample	Total	Solid/Soil	SW 7471B	12E0436_P
12E0436-MS1	Matrix Spike	Total	Solid/Soil	SW 7471B	12E0436_P
12E0436-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 7471B	12E0436_P
CVE0462-10	SB-17(MIP-20) 02-04	Total	Soil	SW 7471B	12E0436_P

Prep Batch: 12E0436_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0436-BLK1	Method Blank	Total	Solid/Soil	EPA 245.2/SW 7470A Prep	
12E0436-BS1	Lab Control Sample	Total	Solid/Soil	EPA 245.2/SW 7470A Prep	
12E0436-MS1	Matrix Spike	Total	Solid/Soil	EPA 245.2/SW 7470A Prep	
12E0436-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	EPA 245.2/SW 7470A Prep	
CVE0462-10	SB-17(MIP-20) 02-04	Total	Soil	EPA 245.2/SW 7470A Prep	

Metals-ICP

Analysis Batch: 12E0416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0416-BLK1	Method Blank	Total	Solid/Soil	SW 6010C	12E0416_P
12E0416-BS1	Lab Control Sample	Total	Solid/Soil	SW 6010C	12E0416_P
12E0416-DUP1	Duplicate	Total	Solid/Soil	SW 6010C	12E0416_P
12E0416-MS1	Matrix Spike	Total	Solid/Soil	SW 6010C	12E0416_P
12E0416-MS2	Matrix Spike	Total	Solid/Soil	SW 6010C	12E0416_P
12E0416-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 6010C	12E0416_P
CVE0462-10	SB-17(MIP-20) 02-04	Total	Soil	SW 6010C	12E0416_P

Prep Batch: 12E0416_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0416-BLK1	Method Blank	Total	Solid/Soil	SW 3050B	
12E0416-BS1	Lab Control Sample	Total	Solid/Soil	SW 3050B	
12E0416-DUP1	Duplicate	Total	Solid/Soil	SW 3050B	
12E0416-MS1	Matrix Spike	Total	Solid/Soil	SW 3050B	
12E0416-MS2	Matrix Spike	Total	Solid/Soil	SW 3050B	

Metals-ICP (Continued)

Prep Batch: 12E0416_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0416-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 3050B	
CVE0462-10	SB-17(MIP-20) 02-04	Total	Soil	SW 3050B	

General Chemistry

Analysis Batch: 149281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0462-06	SB-16(MIP-05) 12-14	Total/NA	Soil	Moisture	
CVE0462-07	Duplicate-4	Total/NA	Soil	Moisture	
CVE0462-08	SB-16(MIP-05) 18-20	Total/NA	Soil	Moisture	
CVE0462-09	SB-16(MIP-05) 24-26	Total/NA	Soil	Moisture	
CVE0462-10	SB-17(MIP-20) 02-04	Total/NA	Soil	Moisture	
CVE0462-11	SB-17(MIP-20) 10-12	Total/NA	Soil	Moisture	
CVE0462-12	Duplicate-5	Total/NA	Soil	Moisture	

Prep Batch: 149680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0462-06	SB-16(MIP-05) 12-14	Total/NA	Soil	9071B	
CVE0462-07	Duplicate-4	Total/NA	Soil	9071B	
CVE0462-08	SB-16(MIP-05) 18-20	Total/NA	Soil	9071B	
CVE0462-09	SB-16(MIP-05) 24-26	Total/NA	Soil	9071B	
CVE0462-10	SB-17(MIP-20) 02-04	Total/NA	Soil	9071B	
CVE0462-11	SB-17(MIP-20) 10-12	Total/NA	Soil	9071B	
CVE0462-12	Duplicate-5	Total/NA	Soil	9071B	
LCS 500-149680/2-A	Lab Control Sample	Total/NA	Solid	9071B	
MB 500-149680/1-A	Method Blank	Total/NA	Solid	9071B	

Analysis Batch: 149727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0462-06	SB-16(MIP-05) 12-14	Total/NA	Soil	9071B	149680
CVE0462-07	Duplicate-4	Total/NA	Soil	9071B	149680
CVE0462-08	SB-16(MIP-05) 18-20	Total/NA	Soil	9071B	149680
CVE0462-09	SB-16(MIP-05) 24-26	Total/NA	Soil	9071B	149680
CVE0462-10	SB-17(MIP-20) 02-04	Total/NA	Soil	9071B	149680
CVE0462-11	SB-17(MIP-20) 10-12	Total/NA	Soil	9071B	149680
CVE0462-12	Duplicate-5	Total/NA	Soil	9071B	149680
LCS 500-149680/2-A	Lab Control Sample	Total/NA	Solid	9071B	149680
MB 500-149680/1-A	Method Blank	Total/NA	Solid	9071B	149680

WetChem

Analysis Batch: 12E0302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0302-DUP1	Duplicate	Total	Solid/Soil	SM 2540 G	12E0302_P
12E0302-DUP2	Duplicate	Total	Solid/Soil	SM 2540 G	12E0302_P
CVE0462-01	SB-14(MIP-21) 07-09	Total	Soil	SM 2540 G	12E0302_P
CVE0462-02	SB-14(MIP-21) 12-14	Total	Soil	SM 2540 G	12E0302_P
CVE0462-03	SB-14(MIP-21) 23-25	Total	Soil	SM 2540 G	12E0302_P
CVE0462-04	SB-15(MIP-3) 13-15	Total	Soil	SM 2540 G	12E0302_P
CVE0462-05	SB-15(MIP-3) 19-21	Total	Soil	SM 2540 G	12E0302_P
CVE0462-06	SB-16(MIP-05) 12-14	Total	Soil	SM 2540 G	12E0302_P
CVE0462-07	Duplicate-4	Total	Soil	SM 2540 G	12E0302_P

WetChem (Continued)

Analysis Batch: 12E0302 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0462-08	SB-16(MIP-05) 18-20	Total	Soil	SM 2540 G	12E0302_P
CVE0462-09	SB-16(MIP-05) 24-26	Total	Soil	SM 2540 G	12E0302_P
CVE0462-10	SB-17(MIP-20) 02-04	Total	Soil	SM 2540 G	12E0302_P

Analysis Batch: 12E0303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0303-DUP1	SB-17(MIP-20) 10-12	Total	Solid/Soil	SM 2540 G	12E0303_P
CVE0462-11	SB-17(MIP-20) 10-12	Total	Soil	SM 2540 G	12E0303_P
CVE0462-12	Duplicate-5	Total	Soil	SM 2540 G	12E0303_P

Prep Batch: 12E0302_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0302-DUP1	Duplicate	Total	Solid/Soil	Solids - Solid/Soil	
12E0302-DUP2	Duplicate	Total	Solid/Soil	Solids - Solid/Soil	
CVE0462-01	SB-14(MIP-21) 07-09	Total	Soil	Solids - Solid/Soil	
CVE0462-02	SB-14(MIP-21) 12-14	Total	Soil	Solids - Solid/Soil	
CVE0462-03	SB-14(MIP-21) 23-25	Total	Soil	Solids - Solid/Soil	
CVE0462-04	SB-15(MIP-3) 13-15	Total	Soil	Solids - Solid/Soil	
CVE0462-05	SB-15(MIP-3) 19-21	Total	Soil	Solids - Solid/Soil	
CVE0462-06	SB-16(MIP-05) 12-14	Total	Soil	Solids - Solid/Soil	
CVE0462-07	Duplicate-4	Total	Soil	Solids - Solid/Soil	
CVE0462-08	SB-16(MIP-05) 18-20	Total	Soil	Solids - Solid/Soil	
CVE0462-09	SB-16(MIP-05) 24-26	Total	Soil	Solids - Solid/Soil	
CVE0462-10	SB-17(MIP-20) 02-04	Total	Soil	Solids - Solid/Soil	

Prep Batch: 12E0303_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0303-DUP1	SB-17(MIP-20) 10-12	Total	Solid/Soil	Solids - Solid/Soil	
CVE0462-11	SB-17(MIP-20) 10-12	Total	Soil	Solids - Solid/Soil	
CVE0462-12	Duplicate-5	Total	Soil	Solids - Solid/Soil	

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-14(MIP-21) 07-09

Lab Sample ID: CVE0462-01

Date Collected: 05/02/12 08:30
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.825	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 08:01	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0302	05/04/12 18:24	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0302_P	05/04/12 18:24	HNC	TAL CF

Client Sample ID: SB-14(MIP-21) 12-14

Lab Sample ID: CVE0462-02

Date Collected: 05/02/12 08:45
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.795	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 08:24	ZTB	TAL CF
Total	Prep	SW 5035	RE1	0.795	12E0839_P	05/15/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B	RE1	1000	12E0839	05/15/12 16:55	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0302	05/04/12 18:24	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0302_P	05/04/12 18:24	HNC	TAL CF

Client Sample ID: SB-14(MIP-21) 23-25

Lab Sample ID: CVE0462-03

Date Collected: 05/02/12 09:05
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.908	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 08:47	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0302	05/04/12 18:24	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0302_P	05/04/12 18:24	HNC	TAL CF

Client Sample ID: SB-15(MIP-3) 13-15

Lab Sample ID: CVE0462-04

Date Collected: 05/02/12 09:50
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.827	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 09:10	ZTB	TAL CF
Total	Prep	SW 5035	RE1	0.827	12E0839_P	05/15/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B	RE1	1000	12E0839	05/15/12 17:26	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0302	05/04/12 18:24	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0302_P	05/04/12 18:24	HNC	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-15(MIP-3) 19-21 — Lab Sample ID: CVE0462-05

Date Collected: 05/02/12 10:10 — **Matrix: Soil**
Date Received: 05/04/12 09:30 — **Percent Solids: 87.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.750	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 09:33	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0302	05/04/12 18:24	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0302_P	05/04/12 18:24	HNC	TAL CF

Client Sample ID: SB-16(MIP-05) 12-14 — Lab Sample ID: CVE0462-06

Date Collected: 05/02/12 10:45 — **Matrix: Soil**
Date Received: 05/04/12 09:30 — **Percent Solids: 87**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.910	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 09:56	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.989	12E0361_P	05/07/12 12:01	EEE	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000833	05/09/12 20:58	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149281	05/10/12 07:20	CMV	TAL CHI
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 11:20	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0302	05/04/12 18:24	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0302_P	05/04/12 18:24	HNC	TAL CF

Client Sample ID: Duplicate-4 — Lab Sample ID: CVE0462-07

Date Collected: 05/02/12 00:00 — **Matrix: Soil**
Date Received: 05/04/12 09:30 — **Percent Solids: 87.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.769	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 10:19	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.979	12E0361_P	05/07/12 12:01	EEE	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000833	05/09/12 21:39	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149281	05/10/12 07:20	CMV	TAL CHI
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 11:26	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0302	05/04/12 18:24	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0302_P	05/04/12 18:24	HNC	TAL CF

Client Sample ID: SB-16(MIP-05) 18-20 — Lab Sample ID: CVE0462-08

Date Collected: 05/02/12 11:00 — **Matrix: Soil**
Date Received: 05/04/12 09:30 — **Percent Solids: 86.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.811	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 10:43	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.985	12E0361_P	05/07/12 12:01	EEE	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000833	05/09/12 22:20	MXG	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-16(MIP-05) 18-20

Lab Sample ID: CVE0462-08

Date Collected: 05/02/12 11:00
Matrix: Soil
Date Received: 05/04/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	149281	05/10/12 07:20	CMV	TAL CHI
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 11:31	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0302	05/04/12 18:24	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0302_P	05/04/12 18:24	HNC	TAL CF

Client Sample ID: SB-16(MIP-05) 24-26

Lab Sample ID: CVE0462-09

Date Collected: 05/02/12 11:15
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.788	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 11:05	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.990	12E0361_P	05/07/12 12:01	EEE	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000833	05/09/12 23:01	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149281	05/10/12 07:20	CMV	TAL CHI
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 11:37	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0302	05/04/12 18:24	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0302_P	05/04/12 18:24	HNC	TAL CF

Client Sample ID: SB-17(MIP-20) 02-04

Lab Sample ID: CVE0462-10

Date Collected: 05/02/12 11:50
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.866	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 11:29	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.967	12E0361_P	05/07/12 12:01	EEE	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000833	05/09/12 23:42	MXG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.884	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 15:55	CJT	TAL CF
Total	Prep	SW 3050B		0.911	12E0416_P	05/08/12 10:26	JDG	TAL CF
Total	Analysis	SW 6010C		1.00	12E0416	05/09/12 11:44	SNS	TAL CF
Total/NA	Analysis	Moisture		1	149281	05/10/12 07:20	CMV	TAL CHI
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 11:42	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0302	05/04/12 18:24	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0302_P	05/04/12 18:24	HNC	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Client Sample ID: SB-17(MIP-20) 10-12

Lab Sample ID: CVE0462-11

Date Collected: 05/02/12 12:00
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.757	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 11:51	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.964	12E0361_P	05/07/12 12:01	EEE	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000833	05/10/12 00:23	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149281	05/10/12 07:20	CMV	TAL CHI
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 11:47	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0303	05/04/12 18:29	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0303_P	05/04/12 18:29	HNC	TAL CF

Client Sample ID: Duplicate-5

Lab Sample ID: CVE0462-12

Date Collected: 05/02/12 00:00
Matrix: Soil
Date Received: 05/04/12 09:30
Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.834	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 12:15	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.981	12E0361_P	05/07/12 12:01	EEE	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000833	05/10/12 01:04	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149281	05/10/12 07:20	CMV	TAL CHI
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 11:53	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0303	05/04/12 18:29	HNC	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0303_P	05/04/12 18:29	HNC	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: CVE0462-13

Date Collected: 05/02/12 00:00
Matrix: Water
Date Received: 05/04/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	12E0595_P	05/06/12 00:00	FMK	TAL CF
Total	Analysis	SW 8260B		1.00	12E0595	05/06/12 01:14	FMK	TAL CF
Total	Prep	Default Prep VOC		1.00	12E0396_P	05/08/12 08:14	FMK	TAL CF
Total	Analysis	SW 9041A		1.00	12E0396	05/08/12 08:18	FMK	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL 800-750-2401

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
CIN	The % RSD for this compound was above 15%. The average % RSD for all compounds in the calibration met the 15% criteria specified in EPA methods 8260B/8270C.
R	Sample duplicate RPD exceeded the laboratory control limit.
M1	The MS and/or MSD were outside control limits.

GC Semivolatiles

Qualifier	Qualifier Description
Q	Poor chromatographic match to standard.

Metals-ICP

Qualifier	Qualifier Description
R	Sample duplicate RPD exceeded the laboratory control limit.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Cedar Falls	AIHA - LAP	IHLAP		101044
TestAmerica Cedar Falls	Illinois	NELAC	5	200024
TestAmerica Cedar Falls	Iowa	State Program	7	7
TestAmerica Cedar Falls	Kansas	NELAC	7	E-10341
TestAmerica Cedar Falls	Minnesota	NELAC	5	019-999-319
TestAmerica Cedar Falls	North Dakota	State Program	8	R-186
TestAmerica Cedar Falls	Oregon	NELAC	10	IA100001
TestAmerica Cedar Falls	Wisconsin	State Program	5	999917270
TestAmerica Chicago	A2LA	A2LA		R-194
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Georgia	State Program	4	N/A
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Kentucky (UST)	State Program	4	66
TestAmerica Chicago	L-A-B	DoD ELAP		L2304
TestAmerica Chicago	L-A-B	ISO/IEC 17025		L2304
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina DENR	State Program	4	291
TestAmerica Chicago	North Dakota	State Program	8	R-194
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	Federal		P330-12-00038
TestAmerica Chicago	Virginia	NELAC	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0462

Method	Method Description	Protocol	Laboratory
SW 8260B	Volatile Organic Compounds		TAL CF
SW 9041A	VOC Preservation Check		TAL CF
OA-2 - 8015B	UST ANALYSIS PARAMETERS		TAL CF
SW 7471B	Total Metals by SW 846 Series Methods		TAL CF
SW 6010C	Total Metals by SW 846 Series Methods		TAL CF
9071B	HEM and SGT-HEM	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
SM 2540 G	General Chemistry Parameters		TAL CF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL 800-750-2401

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: GOLDER ASSOCIATES INC Client #: _____
Address: 670 NORTH COMMERCIAL STREET, SUITE 103
City/State/Zip Code: MANCHESTER, NH, 03101
Project Manager: JAMES PEACE
Email Address: jim-peace@golder.com
Telephone Number: (603) 668-0880 Fax: (603) 668-1199
Sampler Name: (Print Name) MICHAEL DREYER
Sampler Signature:

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON State: IOWA
Report To: JAMES PEACE
Invoice To: JAMES PEACE
Quote #: _____ PO#: _____

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify) $NaHSO_4$	Analyze For: VOCs - 8260	TEH - OA-2	O+G - 1664A	METALS	PCBS	TCLP - VOC, SVOC, HERB, PEST	TOTAL SVOCs	CYANIDE FLASHPOINT pH	SULFIDE		QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____ REMARKS
SB-14(MIP-21) 07-09	5-2-12	0830	G		S					1		2	X										
SB-14(MIP-21) 12-14	5-2-12	0845	G		S					1		2	X										
SB-14(MIP-21) 23-25	5-2-12	0905	G		S					1		2	X										
SB-15(MIP-3) 13-15	5-2-12	0950	G		S					1		2	X										
SB-15(MIP-3 19-21	5-2-12	1010	G		S					1		2	X										
SB-16(MIP-05) 12-14	5-2-12	1045	G		S					1	2	2	X	X	X								
DUPLICATE-4	5-2-12	N/A	G		S					1	2	2	X	X	X								
SB-16(MIP-05) 18-20	5-2-12	1100	G		S					1	2	2	X	X	X								
SB-16(MIP-05) 24-26	5-2-12	1115	G		S					1	2	2	X	X	X								
SB-17(MIP-20) 02-04	5-2-12	1150	G		S					1	3	2	X	X	X	X							

Special Instructions:

LABORATORY COMMENTS:

Relinquished By:	Date: 5/3/12	Time: 8:30	Received By:	Date: 5/4/12	Time: 9:30
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: GOLDER ASSOCIATES INC. Client #: _____
Address: 670 NORTH COMMERCIAL STREET, SUITE 103
City/State/Zip Code: MANCHESTER, NEW HAMPSHIRE, 03101
Project Manager: JAMES PEACE
Email Address: jim-peace@golder.com
Telephone Number: (603) 668-0880 Fax: (603) 668-1199
Sampler Name: (Print Name) MICHAEL DREVER
Sampler Signature:

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON State: IOWA
Report To: JAMES PEACE
Invoice To: JAMES PEACE
Quote #: _____ PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify, Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify) $NaHSO_4$	Analyze For: VOC's - 8260	TEH-OA-2	OAG-1664A	METALS	PCBs	TCLP - VOC, SVOC HERB PEST	TOTAL SVOC's	CYANIDE, FLASHPOINT pH	SULFIDE	REMARKS
SB-17(MIP-20) 10-12	5-2-12	1200	G		S					1	2	2	X	X	X							
DUPLICATE - 5	5-2-12	N/A	G		S					1	2	2	X	X	X							
TRIP BLANK	5-2-12	N/A	G		DW		3						X									

Special Instructions:

LABORATORY COMMENTS:

Relinquished By:	Date: 5/3/12	Time: 8:30	Received By:	Date: 5/4/12	Time: 9:30
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Project: _____

City: _____

Date: 5/4/12 Receiver's Initials: MC Time (Delivered): 930

Temperature Record:

Cooler ID# (If Applicable)

_____

10 °C / On Ice

☐ Temp Blank

☐ Temperature out of compliance

Thermometer:

- ☑ IR - 111531565 'D'
- ☐ IR - 111531506 'E'
- ☐ IR - 61854108 'Front'
- ☐ 101681126

Courier:

- ☐ UPS
- ☑ FedEx
- ☐ FedEx Ground
- ☐ US Postal Service
- ☐ Spee-Dee
- ☐ TA Courier
- ☐ TA Field Services
- ☐ Client
- ☐ Other _____

Custody seals present?
☐ Yes

Custody seals intact?
☐ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

- ☐ Sample(s) not received in a cooler.
- ☐ Samples(s) received same day of sampling.
- ☐ Evidence of a chilling process
- ☐ No Temp. Blank. Inside temperature of cooler recorded.
- ☐ Temperature not taken: _____

***Refer to SOP CF-SS-01 for Temperature Criteria**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: 800-750-2401

TestAmerica Job ID: CVE0494
Client Project/Site: 103-87305
Client Project Description: Electrolux Jefferson, IA

For:
GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101

Attn: James Peace

Authorized for release by:
5/21/2012 4:27:00 PM

Derrick Klinkenberg
Organics Manager
derrick.klinkenberg@testamericainc.com

LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: CVE0494

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-46172-1

Comments
No additional comments.

Receipt
The samples were received on 5/9/2012 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.9º C and 3.1º C.

GC Semi VOA
No analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
Method(s) 9071B: The oil and grease matrix spike duplicate (MSD) recovery for sample 500-46172-8 in batch 149727 was outside control limits. The precision RPD was also outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Sample Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
CVE0494-01	SB-01(MIP-15) 02-04	Soil	05/03/12 13:25	05/04/12 19:30
CVE0494-02	SB-01(MIP-15) 07-09	Soil	05/03/12 13:30	05/04/12 19:30
CVE0494-03	SB-01(MIP-15) 15-17	Soil	05/03/12 13:40	05/04/12 19:30
CVE0494-04	SB-01(MIP-15) 31-33	Soil	05/03/12 13:55	05/04/12 19:30
CVE0494-05	SB-02(MIP-34) 02-04	Soil	05/03/12 14:50	05/04/12 19:30
CVE0494-06	SB-02(MIP-34) 14-16	Soil	05/03/12 15:00	05/04/12 19:30
CVE0494-07	SB-02(MIP-34) 28-30	Soil	05/03/12 15:15	05/04/12 19:30
CVE0494-08	SB-13(MIP-32) 01-03	Soil	05/03/12 15:30	05/04/12 19:30
CVE0494-09	SB-13(MIP-32) 04-06	Soil	05/03/12 15:35	05/04/12 19:30
CVE0494-10	SB-13(MIP-32) 10-12	Soil	05/03/12 15:40	05/04/12 19:30
CVE0494-11	SB-13(MIP-32) 16-18	Soil	05/03/12 15:50	05/04/12 19:30
CVE0494-12	SB-13(MIP-32) 26-28	Soil	05/03/12 16:00	05/04/12 19:30
CVE0494-13	SB-11(MIP-02) 14-16	Soil	05/03/12 16:35	05/04/12 19:30
CVE0494-14	SB-11(MIP-02) 18-20	Soil	05/03/12 16:35	05/04/12 19:30
CVE0494-15	SB-03(MIP-30) 02-04	Soil	05/03/12 17:15	05/04/12 19:30
CVE0494-16	SB-03(MIP-30) 06-08	Soil	05/03/12 17:25	05/04/12 19:30
CVE0494-17	SB-03(MIP-30) 16-18	Soil	05/03/12 17:50	05/04/12 19:30
CVE0494-18	SB-07(MIP-29) 02-04	Soil	05/03/12 19:05	05/04/12 19:30
CVE0494-19	SB-09(MIP-09) 03-05	Soil	05/03/12 19:25	05/04/12 19:30
CVE0494-20	SB-08(MIP-25) 02-04	Soil	05/03/12 19:50	05/04/12 19:30
CVE0494-21	Duplicate-2	Soil	05/03/12 00:00	05/04/12 19:30
CVE0494-22	SB-08(MIP-25) 10-12	Soil	05/03/12 20:05	05/04/12 19:30
CVE0494-23	SB-05(MIP-23) 02-04	Soil	05/04/12 08:50	05/04/12 19:30
CVE0494-24	SB-05(MIP-23) 06-08	Soil	05/04/12 09:00	05/04/12 19:30
CVE0494-25	SB-05(MIP-23) 12-14	Soil	05/04/12 09:15	05/04/12 19:30
CVE0494-26	SB-12(MIP-16a) 04-08	Soil	05/04/12 09:40	05/04/12 19:30
CVE0494-27	Duplicate-3	Soil	05/04/12 00:00	05/04/12 19:30
CVE0494-28	SB-12(MIP-16a) 10-12	Soil	05/04/12 10:05	05/04/12 19:30
CVE0494-29	SB-03(MIP-30) 22-24	Soil	05/04/12 10:55	05/04/12 19:30
CVE0494-30	SB-10(MIP-12) 05-07	Soil	05/04/12 11:40	05/04/12 19:30
CVE0494-31	SB-10(MIP-12) 16-18	Soil	05/04/12 12:00	05/04/12 19:30
CVE0494-32	SB-06(MIP-27) 06-08	Soil	05/04/12 12:25	05/04/12 19:30
CVE0494-33	Duplicate-1	Soil	05/04/12 00:00	05/04/12 19:30
CVE0494-34	SB-06(MIP-27) 20-22	Soil	05/04/12 12:50	05/04/12 19:30
CVE0494-35	SB-04(LIF-06) 06-08	Soil	05/04/12 13:20	05/04/12 19:30
CVE0494-36	SB-04(LIF-06) 10-12	Soil	05/04/12 13:30	05/04/12 19:30
CVE0494-37	SB-04(LIF-06) 16-18	Soil	05/04/12 13:50	05/04/12 19:30
CVE0494-38	Trip Blank (GA-2)	Water	05/03/12 00:00	05/04/12 19:30
CVE0494-39	Trip Blank (LBW-7)	Water	05/03/12 00:00	05/04/12 19:30
CVE0494-40	Trip Blank (Rockford)	Water	05/03/12 00:00	05/04/12 19:30
CVE0494-41	Trip Blank (002)	Water	05/03/12 00:00	05/04/12 19:30

Detection Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 02-04 — Lab Sample ID: CVE0494-01

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3310		475		ug/kg dry	100	☼	SW 8260B	Total
Total Extractable Hydrocarbons	3490		30.0		mg/kg	3.00		OA-2 - 8015B	Total
Gasoline	145	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
Diesel - RE1	1560		30.0		mg/kg	3.00		OA-2 - 8015B	Total
Motor Oil - RE1	1780		30.0		mg/kg	3.00		OA-2 - 8015B	Total
Arsenic	5.20		4.42		mg/kg dry	1.00	☼	SW 6010C	Total
Barium	96.4		0.552		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	13.9		1.10		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	7.81		5.52		mg/kg dry	1.00	☼	SW 6010C	Total
Silver	2.08		1.10		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	120	J B	550	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-01(MIP-15) 07-09 — Lab Sample ID: CVE0494-02

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	957		458		ug/kg dry	100	☼	SW 8260B	Total
Total Extractable Hydrocarbons	103		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Diesel	39.0		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	63.9		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Barium	86.9		0.590		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	17.4		1.18		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	8.03		5.90		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	130	J B	570	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-01(MIP-15) 15-17 — Lab Sample ID: CVE0494-03

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2030		495		ug/kg dry	100	☼	SW 8260B	Total
Trichloroethene	11500		495		ug/kg dry	100	☼	SW 8260B	Total
HEM (Oil & Grease)	170	J B	550	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-01(MIP-15) 31-33 — Lab Sample ID: CVE0494-04

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	180	J B	550	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-02(MIP-34) 02-04 — Lab Sample ID: CVE0494-05

No Detections

Client Sample ID: SB-02(MIP-34) 14-16 — Lab Sample ID: CVE0494-06

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	30600		427		ug/kg dry	100	☼	SW 8260B	Total
Vinyl chloride	1670		1280		ug/kg dry	100	☼	SW 8260B	Total
Trichloroethene - RE1	240000		4270		ug/kg dry	1000	☼	SW 8260B	Total

Client Sample ID: SB-02(MIP-34) 28-30 — Lab Sample ID: CVE0494-07

No Detections

Client Sample ID: SB-13(MIP-32) 01-03 — Lab Sample ID: CVE0494-08

Client Sample ID: SB-13(MIP-32) 01-03 (Continued) — Lab Sample ID: CVE0494-08

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Extractable Hydrocarbons	1540		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Diesel	546	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
Gasoline	12.0	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	986		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Barium	210		0.628		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	23.3		1.26		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	10.8		6.28		mg/kg dry	1.00	☼	SW 6010C	Total
Silver	2.97		1.26		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	1600	B	620	120	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-13(MIP-32) 04-06 — Lab Sample ID: CVE0494-09

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
sec-Butylbenzene	962		502		ug/kg dry	100	☼	SW 8260B	Total
1,2,4-Trimethylbenzene	970		502		ug/kg dry	100	☼	SW 8260B	Total
Total Extractable Hydrocarbons	20300		250		mg/kg	25.0		OA-2 - 8015B	Total
Gasoline	59.2		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Diesel - RE1	8420	Q	250		mg/kg	25.0		OA-2 - 8015B	Total
Motor Oil - RE1	11800		250		mg/kg	25.0		OA-2 - 8015B	Total
Barium	196		1.75		mg/kg dry	3.00	☼	SW 6010C	Total
Chromium	23.3		3.50		mg/kg dry	3.00	☼	SW 6010C	Total
HEM (Oil & Grease)	20000	B	550	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-13(MIP-32) 10-12 — Lab Sample ID: CVE0494-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4960		4950		ug/kg dry	100	☼	SW 8260B	Total
Total Extractable Hydrocarbons	453		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Diesel	211	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
Gasoline	17.3	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	225		10.0		mg/kg	1.00		OA-2 - 8015B	Total
HEM (Oil & Grease)	500	J B	580	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-13(MIP-32) 16-18 — Lab Sample ID: CVE0494-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2610		469		ug/kg dry	100	☼	SW 8260B	Total
Trichloroethene	20900		469		ug/kg dry	100	☼	SW 8260B	Total
Total Extractable Hydrocarbons	20.6		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	20.6	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
HEM (Oil & Grease)	200	J B	560	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-13(MIP-32) 26-28 — Lab Sample ID: CVE0494-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Extractable Hydrocarbons	21.8		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	21.8	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
HEM (Oil & Grease)	130	J B	550	100	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-11(MIP-02) 14-16 — Lab Sample ID: CVE0494-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1340		434		ug/kg dry	100	☼	SW 8260B	Total

Detection Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-11(MIP-02) 18-20 — Lab Sample ID: CVE0494-14

No Detections

Client Sample ID: SB-03(MIP-30) 02-04 — Lab Sample ID: CVE0494-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1040		612		ug/kg dry	100	☼	SW 8260B	Total
Total Extractable Hydrocarbons	103		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Diesel	20.5	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
Gasoline	27.5	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	55.2		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Mercury	0.0830		0.0245		mg/kg dry	1.00	☼	SW 7471B	Total
Arsenic	5.85		4.90		mg/kg dry	1.00	☼	SW 6010C	Total
Barium	174		0.612		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	20.1		1.22		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	31.3		6.12		mg/kg dry	1.00	☼	SW 6010C	Total
Silver	2.96		1.22		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	150	J B	610	120	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-03(MIP-30) 06-08 — Lab Sample ID: CVE0494-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Butylbenzene	5600		633		ug/kg dry	100	☼	SW 8260B	Total
sec-Butylbenzene	3530		633		ug/kg dry	100	☼	SW 8260B	Total
4-Chlorotoluene	1220		633		ug/kg dry	100	☼	SW 8260B	Total
Isopropylbenzene	2360		633		ug/kg dry	100	☼	SW 8260B	Total
p-Isopropyltoluene	2410		633		ug/kg dry	100	☼	SW 8260B	Total
n-Propylbenzene	6580		633		ug/kg dry	100	☼	SW 8260B	Total
1,2,4-Trimethylbenzene	27500		633		ug/kg dry	100	☼	SW 8260B	Total
1,3,5-Trimethylbenzene	10900		633		ug/kg dry	100	☼	SW 8260B	Total
Xylenes, total	2470		1900		ug/kg dry	100	☼	SW 8260B	Total
Di-n-octyl phthalate	3.31		1.02		mg/kg dry	1.00	☼	SW 8270D	Total
Total Extractable Hydrocarbons	3810		50.0		mg/kg	5.00		OA-2 - 8015B	Total
Diesel	571		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Gasoline	438		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil - RE1	2800		50.0		mg/kg	5.00		OA-2 - 8015B	Total
Barium	1.33		0.100		mg/L	1.00		SW 6010C	TCLP
Lead	0.346		0.100		mg/L	1.00		SW 6010C	TCLP
Barium	116		0.633		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	19.3		1.27		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	9.00		6.33		mg/kg dry	1.00	☼	SW 6010C	Total
Silver	1.96		1.27		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	8700	B	620	120	mg/Kg	1	☼	9071B	Total/NA
Flashpoint	>212°F				°F	1.00		ASTM D92	Total
pH	8.09	H3	0.100		pH Units	1.00		SW 9045D	Total
ZHE Temperature Minimum	20.0	T6			°C	1.00		SW 1311	Total
ZHE Temperature Maximum	25.2	T6			°C	1.00		SW 1311	Total
TCLP Extraction Temp. Minimum	21.1				°C	1.00		SW 1311	TCLP
TCLP Extraction Temp. Maximum	23.3				°C	1.00		SW 1311	TCLP

Client Sample ID: SB-03(MIP-30) 16-18 — Lab Sample ID: CVE0494-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Extractable Hydrocarbons	16.7		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	16.7	Q	10.0		mg/kg	1.00		OA-2 - 8015B	Total
HEM (Oil & Grease)	180	J B	550	110	mg/Kg	1	☼	9071B	Total/NA

Detection Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-07(MIP-29) 02-04 — Lab Sample ID: CVE0494-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	110	J B	590	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-09(MIP-09) 03-05 — Lab Sample ID: CVE0494-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	220	J B	580	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-08(MIP-25) 02-04 — Lab Sample ID: CVE0494-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	78.5		1.82		mg/kg dry	3.00	☼	SW 6010C	Total
Chromium	17.4		3.64		mg/kg dry	3.00	☼	SW 6010C	Total
HEM (Oil & Grease)	170	J B	560	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: Duplicate-2 — Lab Sample ID: CVE0494-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	71.7		1.82		mg/kg dry	3.00	☼	SW 6010C	Total
Chromium	16.1		3.63		mg/kg dry	3.00	☼	SW 6010C	Total
HEM (Oil & Grease)	140	J B	600	120	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-08(MIP-25) 10-12 — Lab Sample ID: CVE0494-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	160	J B	570	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-05(MIP-23) 02-04 — Lab Sample ID: CVE0494-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Extractable Hydrocarbons	27.0		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	27.0		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Barium	0.558		0.100		mg/L	1.00		SW 6010C	TCLP
Barium	153		0.619		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	21.2		1.24		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	16.8		6.19		mg/kg dry	1.00	☼	SW 6010C	Total
Silver	2.69		1.24		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	170	J B	620	120	mg/Kg	1	☼	9071B	Total/NA
Flashpoint	>212°F				°F	1.00		ASTM D92	Total
pH	7.84	H3	0.100		pH Units	1.00		SW 9045D	Total
ZHE Temperature Minimum	20.0	T6			°C	1.00		SW 1311	Total
ZHE Temperature Maximum	25.2	T6			°C	1.00		SW 1311	Total
TCLP Extraction Temp. Minimum	21.1				°C	1.00		SW 1311	TCLP
TCLP Extraction Temp. Maximum	23.3				°C	1.00		SW 1311	TCLP

Client Sample ID: SB-05(MIP-23) 06-08 — Lab Sample ID: CVE0494-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Extractable Hydrocarbons	21.1		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	21.1		10.0		mg/kg	1.00		OA-2 - 8015B	Total
Mercury	0.0222		0.0221		mg/kg dry	1.00	☼	SW 7471B	Total
Barium	102		1.89		mg/kg dry	3.00	☼	SW 6010C	Total
Chromium	26.3		3.77		mg/kg dry	3.00	☼	SW 6010C	Total
Silver	4.09		3.77		mg/kg dry	3.00	☼	SW 6010C	Total

Client Sample ID: SB-05(MIP-23) 06-08 (Continued) — Lab Sample ID: CVE0494-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	150	J B	630	120	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-05(MIP-23) 12-14 — Lab Sample ID: CVE0494-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	150	J B	570	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-12(MIP-16a) 04-08 — Lab Sample ID: CVE0494-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1090		494		ug/kg dry	100	☼	SW 8260B	Total
Total Extractable Hydrocarbons	17300		180		mg/kg	15.0		OA-2 - 8015B	Total
Gasoline	162	Q	12.0		mg/kg	1.00		OA-2 - 8015B	Total
Diesel - RE1	5170	Q	180		mg/kg	15.0		OA-2 - 8015B	Total
Motor Oil - RE1	12000		180		mg/kg	15.0		OA-2 - 8015B	Total
Barium	2.76		0.100		mg/L	1.00		SW 6010C	TCLP
Barium	152		0.618		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	18.1		1.24		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	11.0		6.18		mg/kg dry	1.00	☼	SW 6010C	Total
Sulfide	50		27	10	mg/Kg	1	☼	9034	Total/NA
HEM (Oil & Grease)	20000	B	610	120	mg/Kg	1	☼	9071B	Total/NA
Flashpoint	>212°F				°F	1.00		ASTM D92	Total
pH	8.40	H3	0.100		pH Units	1.00		SW 9045D	Total
ZHE Temperature Minimum	20.0	T6			°C	1.00		SW 1311	Total
ZHE Temperature Maximum	25.2	T6			°C	1.00		SW 1311	Total
TCLP Extraction Temp. Minimum	21.1				°C	1.00		SW 1311	TCLP
TCLP Extraction Temp. Maximum	23.3				°C	1.00		SW 1311	TCLP

Client Sample ID: Duplicate-3 — Lab Sample ID: CVE0494-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	904		537		ug/kg dry	100	☼	SW 8260B	Total
Total Extractable Hydrocarbons	11400		119		mg/kg	10.0		OA-2 - 8015B	Total
Gasoline	103	Q	11.9		mg/kg	1.00		OA-2 - 8015B	Total
Diesel - RE1	3370	Q	119		mg/kg	10.0		OA-2 - 8015B	Total
Motor Oil - RE1	7890		119		mg/kg	10.0		OA-2 - 8015B	Total
Barium	161		0.540		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	18.6		1.08		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	8.64		5.40		mg/kg dry	1.00	☼	SW 6010C	Total
Silver	1.25		1.08		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	25000	B	620	120	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-12(MIP-16a) 10-12 — Lab Sample ID: CVE0494-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Extractable Hydrocarbons	80.0		11.8		mg/kg	1.00		OA-2 - 8015B	Total
Diesel	31.1	Q	11.8		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	48.9	Q	11.8		mg/kg	1.00		OA-2 - 8015B	Total
Barium	69.5		0.589		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	14.3		1.18		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	7.26		5.89		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	140	J B	590	110	mg/Kg	1	☼	9071B	Total/NA

Detection Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 22-24 — Lab Sample ID: CVE0494-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	170	J B	560	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-10(MIP-12) 05-07 — Lab Sample ID: CVE0494-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	77.5		0.591		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	9.17		1.18		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	130	J B	580	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: SB-10(MIP-12) 16-18 — Lab Sample ID: CVE0494-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	10200		474		ug/kg dry	100	☼	SW 8260B	Total

Client Sample ID: SB-06(MIP-27) 06-08 — Lab Sample ID: CVE0494-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Butylbenzene	4150		607		ug/kg dry	100	☼	SW 8260B	Total
sec-Butylbenzene	683		607		ug/kg dry	100	☼	SW 8260B	Total
1,2,4-Trimethylbenzene	691		607		ug/kg dry	100	☼	SW 8260B	Total

Client Sample ID: Duplicate-1 — Lab Sample ID: CVE0494-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Butylbenzene	5680		451		ug/kg dry	100	☼	SW 8260B	Total
sec-Butylbenzene	881		451		ug/kg dry	100	☼	SW 8260B	Total
1,2,4-Trimethylbenzene	886		451		ug/kg dry	100	☼	SW 8260B	Total

Client Sample ID: SB-06(MIP-27) 20-22 — Lab Sample ID: CVE0494-34

No Detections

Client Sample ID: SB-04(LIF-06) 06-08 — Lab Sample ID: CVE0494-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Butylbenzene	3180		537		ug/kg dry	100	☼	SW 8260B	Total
sec-Butylbenzene	15400		537		ug/kg dry	100	☼	SW 8260B	Total
Isopropylbenzene	941		537		ug/kg dry	100	☼	SW 8260B	Total
p-Isopropyltoluene	1610		537		ug/kg dry	100	☼	SW 8260B	Total
n-Propylbenzene	2660		537		ug/kg dry	100	☼	SW 8260B	Total
1,2,4-Trimethylbenzene	15800		537		ug/kg dry	100	☼	SW 8260B	Total
1,3,5-Trimethylbenzene	5540		537		ug/kg dry	100	☼	SW 8260B	Total
Xylenes, total	2560		1610		ug/kg dry	100	☼	SW 8260B	Total
Total Extractable Hydrocarbons	9830		119		mg/kg	10.0		OA-2 - 8015B	Total
Gasoline	641	Q	11.9		mg/kg	1.00		OA-2 - 8015B	Total
Diesel - RE1	2630	Q	119		mg/kg	10.0		OA-2 - 8015B	Total
Motor Oil - RE1	6560		119		mg/kg	10.0		OA-2 - 8015B	Total
Mercury	0.0351		0.0228		mg/kg dry	1.00	☼	SW 7471B	Total
Barium	122		0.627		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	23.3		1.25		mg/kg dry	1.00	☼	SW 6010C	Total
Lead	11.7		6.27		mg/kg dry	1.00	☼	SW 6010C	Total
Silver	2.54		1.25		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	8600	B	620	120	mg/Kg	1	☼	9071B	Total/NA

Detection Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 10-12 — Lab Sample ID: CVE0494-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Extractable Hydrocarbons	949		11.8		mg/kg	1.00		OA-2 - 8015B	Total
Diesel	220	Q	11.8		mg/kg	1.00		OA-2 - 8015B	Total
Gasoline	18.8	Q	11.8		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	710		11.8		mg/kg	1.00		OA-2 - 8015B	Total
Barium	0.576		0.100		mg/L	1.00		SW 6010C	TCLP
Barium	43.2		0.618		mg/kg dry	1.00	☼	SW 6010C	Total
Chromium	11.5		1.24		mg/kg dry	1.00	☼	SW 6010C	Total
Silver	1.30		1.24		mg/kg dry	1.00	☼	SW 6010C	Total
HEM (Oil & Grease)	1300	B	610	120	mg/Kg	1	☼	9071B	Total/NA
Flashpoint	>212°F				°F	1.00		ASTM D92	Total
pH	7.88	H3	0.100		pH Units	1.00		SW 9045D	Total
ZHE Temperature Minimum	20.0	T6			°C	1.00		SW 1311	Total
ZHE Temperature Maximum	25.2	T6			°C	1.00		SW 1311	Total
TCLP Extraction Temp. Minimum	21.1				°C	1.00		SW 1311	TCLP
TCLP Extraction Temp. Maximum	23.3				°C	1.00		SW 1311	TCLP

Client Sample ID: SB-04(LIF-06) 16-18 — Lab Sample ID: CVE0494-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Extractable Hydrocarbons	17.4		11.9		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	17.4	Q	11.9		mg/kg	1.00		OA-2 - 8015B	Total
HEM (Oil & Grease)	190	J B	560	110	mg/Kg	1	☼	9071B	Total/NA

Client Sample ID: Trip Blank (GA-2) — Lab Sample ID: CVE0494-38

No Detections

Client Sample ID: Trip Blank (LBW-7) — Lab Sample ID: CVE0494-39

No Detections

Client Sample ID: Trip Blank (Rockford) — Lab Sample ID: CVE0494-40

No Detections

Client Sample ID: Trip Blank (002) — Lab Sample ID: CVE0494-41

No Detections

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 02-04

Date Collected: 05/03/12 13:25
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-01

Matrix: Soil
Percent Solids: 90.6

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4750		4750		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Benzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Bromobenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Bromochloromethane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Bromodichloromethane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Bromoform	<951		951		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Bromomethane	<1900		1900		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
2-Butanone (MEK)	<4750		4750		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
n-Butylbenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
sec-Butylbenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
tert-Butylbenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Carbon disulfide	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Carbon Tetrachloride	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Chlorobenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Chlorodibromomethane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Chloroethane	<1900		1900		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Chloroform	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Chloromethane	<1900		1900		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
2-Chlorotoluene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
4-Chlorotoluene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,2-Dibromo-3-chloropropane	<4750		4750		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,2-Dibromoethane (EDB)	<4750		4750		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Dibromomethane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,2-Dichlorobenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,3-Dichlorobenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,4-Dichlorobenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Dichlorodifluoromethane	<1430		1430		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,1-Dichloroethane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,2-Dichloroethane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,1-Dichloroethene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
cis-1,2-Dichloroethene	**3310**		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
trans-1,2-Dichloroethene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,2-Dichloropropane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,3-Dichloropropane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
2,2-Dichloropropane	<1900		1900		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,1-Dichloropropene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
cis-1,3-Dichloropropene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
trans-1,3-Dichloropropene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Ethylbenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Hexachlorobutadiene	<2380		2380		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Hexane	<2380		2380		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Isopropylbenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
p-Isopropyltoluene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Methylene Chloride	<4750		4750		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Methyl tert-Butyl Ether	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Naphthalene	<2380		2380		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
n-Propylbenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Styrene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,1,1,2-Tetrachloroethane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,1,2,2-Tetrachloroethane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Tetrachloroethene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 02-04

Date Collected: 05/03/12 13:25
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-01

Matrix: Soil
Percent Solids: 90.6

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,2,3-Trichlorobenzene	<2380		2380		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,2,4-Trichlorobenzene	<2380		2380		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,1,1-Trichloroethane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,1,2-Trichloroethane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Trichloroethene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Trichlorofluoromethane	<1900		1900		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,2,3-Trichloropropane	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,2,4-Trimethylbenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
1,3,5-Trimethylbenzene	<475		475		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Vinyl chloride	<1430		1430		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100
Xylenes, total	<1430		1430		ug/kg dry	☼	05/12/12 00:00	05/12/12 12:38	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*75 - 125*	*05/12/12 00:00*	*05/12/12 12:38*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 12:38*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 12:38*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**3490**		30.0		mg/kg		05/07/12 12:01	05/11/12 21:05	3.00
Gasoline	**145**	**Q**	10.0		mg/kg		05/07/12 12:01	05/10/12 03:48	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*762*	*ZX*	*60 - 145*	*05/07/12 12:01*	*05/10/12 03:48*	*1.00*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	**1560**		30.0		mg/kg		05/07/12 12:01	05/11/12 21:05	3.00
Motor Oil	**1780**		30.0		mg/kg		05/07/12 12:01	05/11/12 21:05	3.00

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0221		0.0221		mg/kg dry	☼	05/08/12 13:38	05/08/12 15:58	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.20**		4.42		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:11	1.00
Barium	**96.4**		0.552		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:11	1.00
Cadmium	<1.10		1.10		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:11	1.00
Chromium	**13.9**		1.10		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:11	1.00
Lead	**7.81**		5.52		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:11	1.00
Selenium	<8.28		8.28		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:11	1.00
Silver	**2.08**		1.10		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:11	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**120**	**J B**	550	110	mg/Kg	☼	05/15/12 07:00	05/15/12 11:58	1
Percent Moisture	**9.4**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**91**		0.10	0.10	%			05/15/12 11:20	1

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 02-04

Lab Sample ID: CVE0494-01

Date Collected: 05/03/12 13:25
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 90.6

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	90.6		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 07-09

Date Collected: 05/03/12 13:30
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-02

Matrix: Soil
Percent Solids: 84.8

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4580		4580		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Benzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Bromobenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Bromochloromethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Bromodichloromethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Bromoform	<915		915		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Bromomethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
2-Butanone (MEK)	<4580		4580		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
n-Butylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
sec-Butylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
tert-Butylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Carbon disulfide	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Carbon Tetrachloride	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Chlorobenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Chlorodibromomethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Chloroethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Chloroform	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Chloromethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
2-Chlorotoluene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
4-Chlorotoluene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,2-Dibromo-3-chloropropane	<4580		4580		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,2-Dibromoethane (EDB)	<4580		4580		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Dibromomethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,2-Dichlorobenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,3-Dichlorobenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,4-Dichlorobenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Dichlorodifluoromethane	<1370		1370		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,1-Dichloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,2-Dichloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,1-Dichloroethene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
cis-1,2-Dichloroethene	**957**		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
trans-1,2-Dichloroethene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,2-Dichloropropane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,3-Dichloropropane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
2,2-Dichloropropane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,1-Dichloropropene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
cis-1,3-Dichloropropene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
trans-1,3-Dichloropropene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Ethylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Hexachlorobutadiene	<2290		2290		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Hexane	<2290		2290		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Isopropylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
p-Isopropyltoluene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Methylene Chloride	<4580		4580		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Methyl tert-Butyl Ether	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Naphthalene	<2290		2290		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
n-Propylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Styrene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,1,1,2-Tetrachloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,1,2,2-Tetrachloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Tetrachloroethene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 07-09

Date Collected: 05/03/12 13:30
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-02

Matrix: Soil
Percent Solids: 84.8

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,2,3-Trichlorobenzene	<2290		2290		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,2,4-Trichlorobenzene	<2290		2290		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,1,1-Trichloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,1,2-Trichloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Trichloroethene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Trichlorofluoromethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,2,3-Trichloropropane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,2,4-Trimethylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
1,3,5-Trimethylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Vinyl chloride	<1370		1370		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100
Xylenes, total	<1370		1370		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:01	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 13:01*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 13:01*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 13:01*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**103**		10.0		mg/kg		05/07/12 12:01	05/11/12 20:23	1.00
Diesel	**39.0**		10.0		mg/kg		05/07/12 12:01	05/11/12 20:23	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/11/12 20:23	1.00
Motor Oil	**63.9**		10.0		mg/kg		05/07/12 12:01	05/11/12 20:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*137*		*60 - 145*	*05/07/12 12:01*	*05/11/12 20:23*	*1.00*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0236		0.0236		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:00	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<4.72		4.72		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:22	1.00
Barium	**86.9**		0.590		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:22	1.00
Cadmium	<1.18		1.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:22	1.00
Chromium	**17.4**		1.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:22	1.00
Lead	**8.03**		5.90		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:22	1.00
Selenium	<8.84		8.84		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:22	1.00
Silver	<1.18		1.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:22	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**130**	**J B**	570	110	mg/Kg	☼	05/15/12 07:00	05/15/12 12:04	1
Percent Moisture	**15**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**85**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**84.8**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 15-17

Lab Sample ID: CVE0494-03

Date Collected: 05/03/12 13:40
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 87.1

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Benzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Bromobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Bromochloromethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Bromodichloromethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Bromoform	<990		990		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Bromomethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
2-Butanone (MEK)	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
n-Butylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
sec-Butylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
tert-Butylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Carbon disulfide	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Carbon Tetrachloride	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Chlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Chlorodibromomethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Chloroethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Chloroform	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Chloromethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
2-Chlorotoluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
4-Chlorotoluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,2-Dibromo-3-chloropropane	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,2-Dibromoethane (EDB)	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Dibromomethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,2-Dichlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,3-Dichlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,4-Dichlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Dichlorodifluoromethane	<1480		1480		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,1-Dichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,2-Dichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,1-Dichloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
cis-1,2-Dichloroethene	**2030**		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
trans-1,2-Dichloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,2-Dichloropropane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,3-Dichloropropane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
2,2-Dichloropropane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,1-Dichloropropene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
cis-1,3-Dichloropropene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
trans-1,3-Dichloropropene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Ethylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Hexachlorobutadiene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Hexane	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Isopropylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
p-Isopropyltoluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Methylene Chloride	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Methyl tert-Butyl Ether	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Naphthalene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
n-Propylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Styrene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,1,1,2-Tetrachloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,1,2,2-Tetrachloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Tetrachloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 15-17

Date Collected: 05/03/12 13:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-03

Matrix: Soil
Percent Solids: 87.1

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,2,3-Trichlorobenzene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,2,4-Trichlorobenzene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,1,1-Trichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,1,2-Trichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Trichloroethene	**11500**		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Trichlorofluoromethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,2,3-Trichloropropane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,2,4-Trimethylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
1,3,5-Trimethylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Vinyl chloride	<1480		1480		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100
Xylenes, total	<1480		1480		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:24	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99*		*75 - 125*	*05/12/12 00:00*	*05/12/12 13:24*	*100*
Toluene-d8	*101*		*80 - 120*	*05/12/12 00:00*	*05/12/12 13:24*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 13:24*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 05:11	1.00
Diesel	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 05:11	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 05:11	1.00
Motor Oil	<10.0		10.0		mg/kg		05/07/12 12:01	05/10/12 05:11	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*85*		*60 - 145*	*05/07/12 12:01*	*05/10/12 05:11*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**170**	**J B**	550	110	mg/Kg	☼	05/15/12 07:00	05/15/12 12:09	1
Percent Moisture	**13**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**87**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.1**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 31-33

Date Collected: 05/03/12 13:55
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-04

Matrix: Soil
Percent Solids: 88.5

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4260		4260		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Benzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Bromobenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Bromochloromethane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Bromodichloromethane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Bromoform	<852		852		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Bromomethane	<1700		1700		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
2-Butanone (MEK)	<4260		4260		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
n-Butylbenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
sec-Butylbenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
tert-Butylbenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Carbon disulfide	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Carbon Tetrachloride	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Chlorobenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Chlorodibromomethane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Chloroethane	<1700		1700		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Chloroform	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Chloromethane	<1700		1700		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
2-Chlorotoluene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
4-Chlorotoluene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,2-Dibromo-3-chloropropane	<4260		4260		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,2-Dibromoethane (EDB)	<4260		4260		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Dibromomethane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,2-Dichlorobenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,3-Dichlorobenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,4-Dichlorobenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Dichlorodifluoromethane	<1280		1280		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,1-Dichloroethane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,2-Dichloroethane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,1-Dichloroethene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
cis-1,2-Dichloroethene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
trans-1,2-Dichloroethene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,2-Dichloropropane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,3-Dichloropropane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
2,2-Dichloropropane	<1700		1700		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,1-Dichloropropene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
cis-1,3-Dichloropropene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
trans-1,3-Dichloropropene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Ethylbenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Hexachlorobutadiene	<2130		2130		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Hexane	<2130		2130		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Isopropylbenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
p-Isopropyltoluene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Methylene Chloride	<4260		4260		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Methyl tert-Butyl Ether	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Naphthalene	<2130		2130		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
n-Propylbenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Styrene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,1,1,2-Tetrachloroethane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,1,2,2-Tetrachloroethane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Tetrachloroethene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 31-33

Date Collected: 05/03/12 13:55
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-04

Matrix: Soil
Percent Solids: 88.5

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,2,3-Trichlorobenzene	<2130		2130		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,2,4-Trichlorobenzene	<2130		2130		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,1,1-Trichloroethane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,1,2-Trichloroethane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Trichloroethene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Trichlorofluoromethane	<1700		1700		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,2,3-Trichloropropane	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,2,4-Trimethylbenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
1,3,5-Trimethylbenzene	<426		426		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Vinyl chloride	<1280		1280		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100
Xylenes, total	<1280		1280		ug/kg dry	☼	05/12/12 00:00	05/12/12 13:47	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 13:47*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 13:47*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 13:47*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 13:06	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 13:06	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 13:06	1.00
Motor Oil	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 13:06	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*83*		*60 - 145*	*05/08/12 10:10*	*05/09/12 13:06*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**180**	**J B**	550	110	mg/Kg	☼	05/15/12 07:00	05/15/12 12:15	1
Percent Moisture	**12**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**89**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**88.5**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-02(MIP-34) 02-04

Lab Sample ID: CVE0494-05

Date Collected: 05/03/12 14:50
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 85.3

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 13:47	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 13:47	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 13:47	1.00
Motor Oil	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 13:47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*71*		*60 - 145*	*05/08/12 10:10*	*05/09/12 13:47*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<110		580	110	mg/Kg	☼	05/15/12 07:00	05/15/12 12:20	1
Percent Moisture	**15**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**85**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**85.3**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-02(MIP-34) 14-16

Lab Sample ID: CVE0494-06

Date Collected: 05/03/12 15:00
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 87.2

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4270		4270		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Benzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Bromobenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Bromochloromethane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Bromodichloromethane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Bromoform	<854		854		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Bromomethane	<1710		1710		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
2-Butanone (MEK)	<4270		4270		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
n-Butylbenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
sec-Butylbenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
tert-Butylbenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Carbon disulfide	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Carbon Tetrachloride	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Chlorobenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Chlorodibromomethane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Chloroethane	<1710		1710		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Chloroform	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Chloromethane	<1710		1710		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
2-Chlorotoluene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
4-Chlorotoluene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,2-Dibromo-3-chloropropane	<4270		4270		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,2-Dibromoethane (EDB)	<4270		4270		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Dibromomethane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,2-Dichlorobenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,3-Dichlorobenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,4-Dichlorobenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Dichlorodifluoromethane	<1280		1280		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,1-Dichloroethane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,2-Dichloroethane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,1-Dichloroethene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
cis-1,2-Dichloroethene	**30600**		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
trans-1,2-Dichloroethene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,2-Dichloropropane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,3-Dichloropropane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
2,2-Dichloropropane	<1710		1710		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,1-Dichloropropene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
cis-1,3-Dichloropropene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
trans-1,3-Dichloropropene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Ethylbenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Hexachlorobutadiene	<2140		2140		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Hexane	<2140		2140		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Isopropylbenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
p-Isopropyltoluene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Methylene Chloride	<4270		4270		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Methyl tert-Butyl Ether	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Naphthalene	<2140		2140		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
n-Propylbenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Styrene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,1,1,2-Tetrachloroethane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,1,2,2-Tetrachloroethane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Tetrachloroethene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-02(MIP-34) 14-16

Date Collected: 05/03/12 15:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-06

Matrix: Soil
Percent Solids: 87.2

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,2,3-Trichlorobenzene	<2140		2140		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,2,4-Trichlorobenzene	<2140		2140		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,1,1-Trichloroethane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,1,2-Trichloroethane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Trichlorofluoromethane	<1710		1710		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,2,3-Trichloropropane	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,2,4-Trimethylbenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
1,3,5-Trimethylbenzene	<427		427		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Vinyl chloride	**1670**		1280		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100
Xylenes, total	<1280		1280		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:10	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 14:10*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 14:10*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 14:10*	*100*

Method: SW 8260B - Volatile Organic Compounds - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**240000**		4270		ug/kg dry	☼	05/15/12 00:00	05/15/12 17:56	1000

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.2**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-02(MIP-34) 28-30

Lab Sample ID: CVE0494-07

Date Collected: 05/03/12 15:15
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 88.1

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4580		4580		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Benzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Bromobenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Bromochloromethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Bromodichloromethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Bromoform	<916		916		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Bromomethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
2-Butanone (MEK)	<4580		4580		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
n-Butylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
sec-Butylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
tert-Butylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Carbon disulfide	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Carbon Tetrachloride	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Chlorobenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Chlorodibromomethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Chloroethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Chloroform	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Chloromethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
2-Chlorotoluene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
4-Chlorotoluene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,2-Dibromo-3-chloropropane	<4580		4580		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,2-Dibromoethane (EDB)	<4580		4580		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Dibromomethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,2-Dichlorobenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,3-Dichlorobenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,4-Dichlorobenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Dichlorodifluoromethane	<1370		1370		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,1-Dichloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,2-Dichloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,1-Dichloroethene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
cis-1,2-Dichloroethene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
trans-1,2-Dichloroethene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,2-Dichloropropane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,3-Dichloropropane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
2,2-Dichloropropane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,1-Dichloropropene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
cis-1,3-Dichloropropene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
trans-1,3-Dichloropropene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Ethylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Hexachlorobutadiene	<2290		2290		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Hexane	<2290		2290		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Isopropylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
p-Isopropyltoluene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Methylene Chloride	<4580		4580		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Methyl tert-Butyl Ether	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Naphthalene	<2290		2290		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
n-Propylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Styrene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,1,1,2-Tetrachloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,1,2,2-Tetrachloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Tetrachloroethene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-02(MIP-34) 28-30

Date Collected: 05/03/12 15:15
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-07

Matrix: Soil
Percent Solids: 88.1

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,2,3-Trichlorobenzene	<2290		2290		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,2,4-Trichlorobenzene	<2290		2290		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,1,1-Trichloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,1,2-Trichloroethane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Trichloroethene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Trichlorofluoromethane	<1830		1830		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,2,3-Trichloropropane	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,2,4-Trimethylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
1,3,5-Trimethylbenzene	<458		458		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Vinyl chloride	<1370		1370		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100
Xylenes, total	<1370		1370		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:33	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 14:33*	*100*
Toluene-d8	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 14:33*	*100*
4-Bromofluorobenzene	*101*		*80 - 120*	*05/12/12 00:00*	*05/12/12 14:33*	*100*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**88.1**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 01-03

Date Collected: 05/03/12 15:30
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-08

Matrix: Soil
Percent Solids: 79.7

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<6280		6280		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Benzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Bromobenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Bromochloromethane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Bromodichloromethane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Bromoform	<1260		1260		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Bromomethane	<2510		2510		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
2-Butanone (MEK)	<6280		6280		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
n-Butylbenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
sec-Butylbenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
tert-Butylbenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Carbon disulfide	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Carbon Tetrachloride	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Chlorobenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Chlorodibromomethane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Chloroethane	<2510		2510		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Chloroform	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Chloromethane	<2510		2510		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
2-Chlorotoluene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
4-Chlorotoluene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,2-Dibromo-3-chloropropane	<6280		6280		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,2-Dibromoethane (EDB)	<6280		6280		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Dibromomethane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,2-Dichlorobenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,3-Dichlorobenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,4-Dichlorobenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Dichlorodifluoromethane	<1880		1880		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,1-Dichloroethane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,2-Dichloroethane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,1-Dichloroethene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
cis-1,2-Dichloroethene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
trans-1,2-Dichloroethene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,2-Dichloropropane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,3-Dichloropropane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
2,2-Dichloropropane	<2510		2510		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,1-Dichloropropene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
cis-1,3-Dichloropropene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
trans-1,3-Dichloropropene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Ethylbenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Hexachlorobutadiene	<3140		3140		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Hexane	<3140		3140		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Isopropylbenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
p-Isopropyltoluene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Methylene Chloride	<6280		6280		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Methyl tert-Butyl Ether	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Naphthalene	<3140		3140		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
n-Propylbenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Styrene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,1,1,2-Tetrachloroethane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,1,2,2-Tetrachloroethane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Tetrachloroethene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 01-03

Date Collected: 05/03/12 15:30
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-08

Matrix: Soil
Percent Solids: 79.7

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,2,3-Trichlorobenzene	<3140		3140		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,2,4-Trichlorobenzene	<3140		3140		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,1,1-Trichloroethane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,1,2-Trichloroethane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Trichloroethene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Trichlorofluoromethane	<2510		2510		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,2,3-Trichloropropane	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,2,4-Trimethylbenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
1,3,5-Trimethylbenzene	<628		628		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Vinyl chloride	<1880		1880		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100
Xylenes, total	<1880		1880		ug/kg dry	☼	05/12/12 00:00	05/12/12 14:57	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*103*		*75 - 125*	*05/12/12 00:00*	*05/12/12 14:57*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 14:57*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 14:57*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**1540**		10.0		mg/kg		05/08/12 10:10	05/09/12 14:28	1.00
Diesel	**546**	**Q**	10.0		mg/kg		05/08/12 10:10	05/09/12 14:28	1.00
Gasoline	**12.0**	**Q**	10.0		mg/kg		05/08/12 10:10	05/09/12 14:28	1.00
Motor Oil	**986**		10.0		mg/kg		05/08/12 10:10	05/09/12 14:28	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*700*	*ZX*	*60 - 145*	*05/08/12 10:10*	*05/09/12 14:28*	*1.00*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0251		0.0251		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:02	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<5.02		5.02		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:24	1.00
Barium	**210**		0.628		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:24	1.00
Cadmium	<1.26		1.26		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:24	1.00
Chromium	**23.3**		1.26		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:24	1.00
Lead	**10.8**		6.28		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:24	1.00
Selenium	<9.41		9.41		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:24	1.00
Silver	**2.97**		1.26		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:24	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**1600**	**B**	620	120	mg/Kg	☼	05/15/12 07:00	05/15/12 12:25	1
Percent Moisture	**20**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**80**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**79.7**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 04-06

Date Collected: 05/03/12 15:35
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-09

Matrix: Soil
Percent Solids: 85.8

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5020		5020		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Benzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Bromobenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Bromochloromethane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Bromodichloromethane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Bromoform	<2010		2010		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Bromomethane	<2010		2010		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
2-Butanone (MEK)	<5020		5020		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
n-Butylbenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
sec-Butylbenzene	**962**		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
tert-Butylbenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Carbon disulfide	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Carbon Tetrachloride	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Chlorobenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Chlorodibromomethane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Chloroethane	<2010		2010		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Chloroform	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Chloromethane	<2010		2010		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
2-Chlorotoluene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
4-Chlorotoluene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,2-Dibromo-3-chloropropane	<5020		5020		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,2-Dibromoethane (EDB)	<5020		5020		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Dibromomethane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,2-Dichlorobenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,3-Dichlorobenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,4-Dichlorobenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Dichlorodifluoromethane	<1510		1510		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,1-Dichloroethane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,2-Dichloroethane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,1-Dichloroethene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
cis-1,2-Dichloroethene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
trans-1,2-Dichloroethene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,2-Dichloropropane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,3-Dichloropropane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
2,2-Dichloropropane	<2010		2010		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,1-Dichloropropene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
cis-1,3-Dichloropropene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
trans-1,3-Dichloropropene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Ethylbenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Hexachlorobutadiene	<2510		2510		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Hexane	<2510		2510		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Isopropylbenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
p-Isopropyltoluene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Methylene Chloride	<5020		5020		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Methyl tert-Butyl Ether	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Naphthalene	<2510		2510		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
n-Propylbenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Styrene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,1,1,2-Tetrachloroethane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,1,2,2-Tetrachloroethane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Tetrachloroethene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 04-06

Date Collected: 05/03/12 15:35
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-09

Matrix: Soil
Percent Solids: 85.8

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,2,3-Trichlorobenzene	<2510		2510		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,2,4-Trichlorobenzene	<2510		2510		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,1,1-Trichloroethane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,1,2-Trichloroethane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Trichloroethene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Trichlorofluoromethane	<2010		2010		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,2,3-Trichloropropane	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,2,4-Trimethylbenzene	**970**		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
1,3,5-Trimethylbenzene	<502		502		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Vinyl chloride	<1510		1510		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100
Xylenes, total	<1510		1510		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:03	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*92*		*75 - 125*	*05/16/12 00:00*	*05/16/12 13:03*	*100*
Toluene-d8	*100*		*80 - 120*	*05/16/12 00:00*	*05/16/12 13:03*	*100*
4-Bromofluorobenzene	*98*		*80 - 120*	*05/16/12 00:00*	*05/16/12 13:03*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**20300**		250		mg/kg		05/08/12 10:10	05/10/12 16:07	25.0
Gasoline	**59.2**		10.0		mg/kg		05/08/12 10:10	05/10/12 00:51	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*8460*	*ZX*	*60 - 145*	*05/08/12 10:10*	*05/10/12 00:51*	*1.00*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	**8420**	**Q**	250		mg/kg		05/08/12 10:10	05/10/12 16:07	25.0
Motor Oil	**11800**		250		mg/kg		05/08/12 10:10	05/10/12 16:07	25.0

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0233		0.0233		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:04	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<14.0	IE	14.0		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:44	3.00
Barium	**196**		1.75		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:44	3.00
Cadmium	<3.50	IE	3.50		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:44	3.00
Chromium	**23.3**		3.50		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:44	3.00
Lead	<17.5	IE	17.5		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:44	3.00
Selenium	<26.2	IE	26.2		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:44	3.00
Silver	<3.50	IE	3.50		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:44	3.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**20000**	**B**	550	110	mg/Kg	☼	05/15/12 07:00	05/15/12 12:31	1
Percent Moisture	**14**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**86**		0.10	0.10	%			05/15/12 11:20	1

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 04-06

Lab Sample ID: CVE0494-09

Date Collected: 05/03/12 15:35
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 85.8

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	85.8		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 10-12

Date Collected: 05/03/12 15:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-10

Matrix: Soil
Percent Solids: 86.6

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**4960**		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Benzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Bromobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Bromochloromethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Bromodichloromethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Bromoform	<991		991		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Bromomethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
2-Butanone (MEK)	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
n-Butylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
sec-Butylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
tert-Butylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Carbon disulfide	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Carbon Tetrachloride	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Chlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Chlorodibromomethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Chloroethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Chloroform	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Chloromethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
2-Chlorotoluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
4-Chlorotoluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,2-Dibromo-3-chloropropane	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,2-Dibromoethane (EDB)	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Dibromomethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,2-Dichlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,3-Dichlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,4-Dichlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Dichlorodifluoromethane	<1490		1490		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,1-Dichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,2-Dichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,1-Dichloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
cis-1,2-Dichloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
trans-1,2-Dichloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,2-Dichloropropane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,3-Dichloropropane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
2,2-Dichloropropane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,1-Dichloropropene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
cis-1,3-Dichloropropene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
trans-1,3-Dichloropropene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Ethylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Hexachlorobutadiene	<2480		2480		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Hexane	<2480		2480		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Isopropylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
p-Isopropyltoluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Methylene Chloride	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Methyl tert-Butyl Ether	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Naphthalene	<2480		2480		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
n-Propylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Styrene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,1,1,2-Tetrachloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,1,2,2-Tetrachloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Tetrachloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 10-12

Date Collected: 05/03/12 15:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-10

Matrix: Soil
Percent Solids: 86.6

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,2,3-Trichlorobenzene	<2480		2480		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,2,4-Trichlorobenzene	<2480		2480		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,1,1-Trichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,1,2-Trichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Trichloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Trichlorofluoromethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,2,3-Trichloropropane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,2,4-Trimethylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
1,3,5-Trimethylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Vinyl chloride	<1490		1490		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100
Xylenes, total	<1490		1490		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:25	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 18:25*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 18:25*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 18:25*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**453**		10.0		mg/kg		05/08/12 10:10	05/10/12 18:11	1.00
Diesel	**211**	**Q**	10.0		mg/kg		05/08/12 10:10	05/10/12 18:11	1.00
Gasoline	**17.3**	**Q**	10.0		mg/kg		05/08/12 10:10	05/10/12 18:11	1.00
Motor Oil	**225**		10.0		mg/kg		05/08/12 10:10	05/10/12 18:11	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*195*	*ZX*	*60 - 145*	*05/08/12 10:10*	*05/10/12 18:11*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**500**	**J B**	580	110	mg/Kg	☼	05/15/12 07:00	05/15/12 12:36	1
Percent Moisture	**13**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**87**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.6**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 16-18

Date Collected: 05/03/12 15:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-11

Matrix: Soil
Percent Solids: 87.3

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4690		4690		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Benzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Bromobenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Bromochloromethane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Bromodichloromethane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Bromoform	<937		937		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Bromomethane	<1870		1870		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
2-Butanone (MEK)	<4690		4690		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
n-Butylbenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
sec-Butylbenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
tert-Butylbenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Carbon disulfide	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Carbon Tetrachloride	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Chlorobenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Chlorodibromomethane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Chloroethane	<1870		1870		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Chloroform	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Chloromethane	<1870		1870		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
2-Chlorotoluene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
4-Chlorotoluene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,2-Dibromo-3-chloropropane	<4690		4690		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,2-Dibromoethane (EDB)	<4690		4690		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Dibromomethane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,2-Dichlorobenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,3-Dichlorobenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,4-Dichlorobenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Dichlorodifluoromethane	<1410		1410		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,1-Dichloroethane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,2-Dichloroethane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,1-Dichloroethene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
cis-1,2-Dichloroethene	**2610**		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
trans-1,2-Dichloroethene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,2-Dichloropropane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,3-Dichloropropane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
2,2-Dichloropropane	<1870		1870		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,1-Dichloropropene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
cis-1,3-Dichloropropene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
trans-1,3-Dichloropropene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Ethylbenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Hexachlorobutadiene	<2340		2340		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Hexane	<2340		2340		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Isopropylbenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
p-Isopropyltoluene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Methylene Chloride	<4690		4690		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Methyl tert-Butyl Ether	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Naphthalene	<2340		2340		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
n-Propylbenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Styrene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,1,1,2-Tetrachloroethane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,1,2,2-Tetrachloroethane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Tetrachloroethene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 16-18

Date Collected: 05/03/12 15:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-11

Matrix: Soil
Percent Solids: 87.3

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,2,3-Trichlorobenzene	<2340		2340		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,2,4-Trichlorobenzene	<2340		2340		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,1,1-Trichloroethane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,1,2-Trichloroethane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Trichloroethene	**20900**		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Trichlorofluoromethane	<1870		1870		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,2,3-Trichloropropane	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,2,4-Trimethylbenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
1,3,5-Trimethylbenzene	<469		469		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Vinyl chloride	<1410		1410		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100
Xylenes, total	<1410		1410		ug/kg dry	☼	05/12/12 00:00	05/12/12 18:48	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 18:48*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 18:48*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 18:48*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**20.6**		10.0		mg/kg		05/08/12 10:10	05/09/12 15:51	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 15:51	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 15:51	1.00
Motor Oil	**20.6**	**Q**	10.0		mg/kg		05/08/12 10:10	05/09/12 15:51	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*98*		*60 - 145*	*05/08/12 10:10*	*05/09/12 15:51*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**200**	**J B**	560	110	mg/Kg	☼	05/15/12 07:00	05/15/12 12:52	1
Percent Moisture	**13**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**87**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.3**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 26-28

Date Collected: 05/03/12 16:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-12

Matrix: Soil
Percent Solids: 87.6

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4880		4880		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Benzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Bromobenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Bromochloromethane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Bromodichloromethane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Bromoform	<976		976		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Bromomethane	<1950		1950		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
2-Butanone (MEK)	<4880		4880		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
n-Butylbenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
sec-Butylbenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
tert-Butylbenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Carbon disulfide	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Carbon Tetrachloride	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Chlorobenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Chlorodibromomethane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Chloroethane	<1950		1950		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Chloroform	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Chloromethane	<1950		1950		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
2-Chlorotoluene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
4-Chlorotoluene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,2-Dibromo-3-chloropropane	<4880		4880		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,2-Dibromoethane (EDB)	<4880		4880		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Dibromomethane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,2-Dichlorobenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,3-Dichlorobenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,4-Dichlorobenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Dichlorodifluoromethane	<1460		1460		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,1-Dichloroethane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,2-Dichloroethane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,1-Dichloroethene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
cis-1,2-Dichloroethene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
trans-1,2-Dichloroethene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,2-Dichloropropane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,3-Dichloropropane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
2,2-Dichloropropane	<1950		1950		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,1-Dichloropropene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
cis-1,3-Dichloropropene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
trans-1,3-Dichloropropene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Ethylbenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Hexachlorobutadiene	<2440		2440		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Hexane	<2440		2440		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Isopropylbenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
p-Isopropyltoluene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Methylene Chloride	<4880		4880		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Methyl tert-Butyl Ether	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Naphthalene	<2440		2440		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
n-Propylbenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Styrene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,1,1,2-Tetrachloroethane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,1,2,2-Tetrachloroethane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Tetrachloroethene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 26-28

Date Collected: 05/03/12 16:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-12

Matrix: Soil
Percent Solids: 87.6

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,2,3-Trichlorobenzene	<2440		2440		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,2,4-Trichlorobenzene	<2440		2440		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,1,1-Trichloroethane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,1,2-Trichloroethane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Trichloroethene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Trichlorofluoromethane	<1950		1950		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,2,3-Trichloropropane	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,2,4-Trimethylbenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
1,3,5-Trimethylbenzene	<488		488		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Vinyl chloride	<1460		1460		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100
Xylenes, total	<1460		1460		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:11	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 19:11*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 19:11*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 19:11*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**21.8**		10.0		mg/kg		05/08/12 10:10	05/09/12 16:33	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 16:33	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 16:33	1.00
Motor Oil	**21.8**	**Q**	10.0		mg/kg		05/08/12 10:10	05/09/12 16:33	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*106*		*60 - 145*	*05/08/12 10:10*	*05/09/12 16:33*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**130**	**J B**	550	100	mg/Kg	☼	05/15/12 07:00	05/15/12 12:58	1
Percent Moisture	**12**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**88**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.6**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-11(MIP-02) 14-16

Lab Sample ID: CVE0494-13

Date Collected: 05/03/12 16:35
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 86.8

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4340		4340		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Benzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Bromobenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Bromochloromethane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Bromodichloromethane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Bromoform	<867		867		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Bromomethane	<1730		1730		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
2-Butanone (MEK)	<4340		4340		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
n-Butylbenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
sec-Butylbenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
tert-Butylbenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Carbon disulfide	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Carbon Tetrachloride	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Chlorobenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Chlorodibromomethane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Chloroethane	<1730		1730		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Chloroform	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Chloromethane	<1730		1730		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
2-Chlorotoluene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
4-Chlorotoluene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,2-Dibromo-3-chloropropane	<4340		4340		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,2-Dibromoethane (EDB)	<4340		4340		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Dibromomethane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,2-Dichlorobenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,3-Dichlorobenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,4-Dichlorobenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Dichlorodifluoromethane	<1300		1300		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,1-Dichloroethane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,2-Dichloroethane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,1-Dichloroethene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
cis-1,2-Dichloroethene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
trans-1,2-Dichloroethene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,2-Dichloropropane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,3-Dichloropropane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
2,2-Dichloropropane	<1730		1730		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,1-Dichloropropene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
cis-1,3-Dichloropropene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
trans-1,3-Dichloropropene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Ethylbenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Hexachlorobutadiene	<2170		2170		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Hexane	<2170		2170		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Isopropylbenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
p-Isopropyltoluene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Methylene Chloride	<4340		4340		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Methyl tert-Butyl Ether	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Naphthalene	<2170		2170		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
n-Propylbenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Styrene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,1,1,2-Tetrachloroethane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,1,2,2-Tetrachloroethane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Tetrachloroethene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-11(MIP-02) 14-16

Date Collected: 05/03/12 16:35
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-13

Matrix: Soil
Percent Solids: 86.8

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,2,3-Trichlorobenzene	<2170		2170		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,2,4-Trichlorobenzene	<2170		2170		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,1,1-Trichloroethane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,1,2-Trichloroethane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Trichloroethene	**1340**		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Trichlorofluoromethane	<1730		1730		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,2,3-Trichloropropane	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,2,4-Trimethylbenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
1,3,5-Trimethylbenzene	<434		434		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Vinyl chloride	<1300		1300		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100
Xylenes, total	<1300		1300		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:35	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 19:35*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 19:35*	*100*
4-Bromofluorobenzene	*98*		*80 - 120*	*05/12/12 00:00*	*05/12/12 19:35*	*100*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.8**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-11(MIP-02) 18-20

Lab Sample ID: CVE0494-14

Date Collected: 05/03/12 16:35
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 87.3

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4820		4820		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Benzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Bromobenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Bromochloromethane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Bromodichloromethane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Bromoform	<963		963		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Bromomethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
2-Butanone (MEK)	<4820		4820		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
n-Butylbenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
sec-Butylbenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
tert-Butylbenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Carbon disulfide	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Carbon Tetrachloride	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Chlorobenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Chlorodibromomethane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Chloroethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Chloroform	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Chloromethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
2-Chlorotoluene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
4-Chlorotoluene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,2-Dibromo-3-chloropropane	<4820		4820		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,2-Dibromoethane (EDB)	<4820		4820		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Dibromomethane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,2-Dichlorobenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,3-Dichlorobenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,4-Dichlorobenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Dichlorodifluoromethane	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,1-Dichloroethane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,2-Dichloroethane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,1-Dichloroethene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
cis-1,2-Dichloroethene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
trans-1,2-Dichloroethene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,2-Dichloropropane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,3-Dichloropropane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
2,2-Dichloropropane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,1-Dichloropropene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
cis-1,3-Dichloropropene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
trans-1,3-Dichloropropene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Ethylbenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Hexachlorobutadiene	<2410		2410		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Hexane	<2410		2410		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Isopropylbenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
p-Isopropyltoluene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Methylene Chloride	<4820		4820		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Methyl tert-Butyl Ether	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Naphthalene	<2410		2410		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
n-Propylbenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Styrene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,1,1,2-Tetrachloroethane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,1,2,2-Tetrachloroethane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Tetrachloroethene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-11(MIP-02) 18-20

Lab Sample ID: CVE0494-14

Date Collected: 05/03/12 16:35
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 87.3

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,2,3-Trichlorobenzene	<2410		2410		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,2,4-Trichlorobenzene	<2410		2410		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,1,1-Trichloroethane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,1,2-Trichloroethane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Trichloroethene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Trichlorofluoromethane	<1930		1930		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,2,3-Trichloropropane	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,2,4-Trimethylbenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
1,3,5-Trimethylbenzene	<482		482		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Vinyl chloride	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100
Xylenes, total	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 19:57	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 19:57*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 19:57*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 19:57*	*100*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.3**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 02-04

Date Collected: 05/03/12 17:15
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-15

Matrix: Soil
Percent Solids: 81.7

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<6120		6120		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Benzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Bromobenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Bromochloromethane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Bromodichloromethane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Bromoform	<1220		1220		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Bromomethane	<2450		2450		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
2-Butanone (MEK)	<6120		6120		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
n-Butylbenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
sec-Butylbenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
tert-Butylbenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Carbon disulfide	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Carbon Tetrachloride	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Chlorobenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Chlorodibromomethane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Chloroethane	<2450		2450		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Chloroform	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Chloromethane	<2450		2450		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
2-Chlorotoluene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
4-Chlorotoluene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,2-Dibromo-3-chloropropane	<6120		6120		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,2-Dibromoethane (EDB)	<6120		6120		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Dibromomethane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,2-Dichlorobenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,3-Dichlorobenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,4-Dichlorobenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Dichlorodifluoromethane	<1840		1840		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,1-Dichloroethane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,2-Dichloroethane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,1-Dichloroethene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
cis-1,2-Dichloroethene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
trans-1,2-Dichloroethene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,2-Dichloropropane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,3-Dichloropropane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
2,2-Dichloropropane	<2450		2450		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,1-Dichloropropene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
cis-1,3-Dichloropropene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
trans-1,3-Dichloropropene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Ethylbenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Hexachlorobutadiene	<3060		3060		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Hexane	<3060		3060		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Isopropylbenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
p-Isopropyltoluene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Methylene Chloride	<6120		6120		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Methyl tert-Butyl Ether	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Naphthalene	<3060		3060		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
n-Propylbenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Styrene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,1,1,2-Tetrachloroethane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,1,2,2-Tetrachloroethane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Tetrachloroethene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 02-04

Date Collected: 05/03/12 17:15
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-15

Matrix: Soil
Percent Solids: 81.7

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,2,3-Trichlorobenzene	<3060		3060		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,2,4-Trichlorobenzene	<3060		3060		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,1,1-Trichloroethane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,1,2-Trichloroethane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Trichloroethene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Trichlorofluoromethane	<2450		2450		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,2,3-Trichloropropane	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,2,4-Trimethylbenzene	**1040**		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
1,3,5-Trimethylbenzene	<612		612		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Vinyl chloride	<1840		1840		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100
Xylenes, total	<1840		1840		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:21	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/12/12 00:00*	*05/12/12 20:21*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 20:21*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 20:21*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**103**		10.0		mg/kg		05/08/12 10:10	05/10/12 00:09	1.00
Diesel	**20.5**	**Q**	10.0		mg/kg		05/08/12 10:10	05/10/12 00:09	1.00
Gasoline	**27.5**	**Q**	10.0		mg/kg		05/08/12 10:10	05/10/12 00:09	1.00
Motor Oil	**55.2**		10.0		mg/kg		05/08/12 10:10	05/10/12 00:09	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*89*		*60 - 145*	*05/08/12 10:10*	*05/10/12 00:09*	*1.00*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0830**		0.0245		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:05	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.85**		4.90		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:27	1.00
Barium	**174**		0.612		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:27	1.00
Cadmium	<1.22		1.22		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:27	1.00
Chromium	**20.1**		1.22		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:27	1.00
Lead	**31.3**		6.12		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:27	1.00
Selenium	<9.18		9.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:27	1.00
Silver	**2.96**		1.22		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:27	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**150**	**J B**	610	120	mg/Kg	☼	05/15/12 07:00	05/15/12 13:03	1
Percent Moisture	**18**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**82**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**81.7**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 06-08

Date Collected: 05/03/12 17:25
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-16

Matrix: Soil
Percent Solids: 78.9

Method: SW 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0100		0.0100		mg/L		05/10/12 00:00	05/10/12 20:25	20.0
2-Butanone (MEK)	<0.200	L	0.200		mg/L		05/10/12 00:00	05/10/12 20:25	20.0
Carbon Tetrachloride	<0.0400		0.0400		mg/L		05/10/12 00:00	05/10/12 20:25	20.0
Chlorobenzene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:25	20.0
Chloroform	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:25	20.0
1,2-Dichloroethane	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:25	20.0
1,1-Dichloroethene	<0.0400		0.0400		mg/L		05/10/12 00:00	05/10/12 20:25	20.0
Tetrachloroethene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:25	20.0
Trichloroethene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:25	20.0
Vinyl chloride	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:25	20.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*109*		*75 - 125*	*05/10/12 00:00*	*05/10/12 20:25*	*20.0*
Toluene-d8	*102*		*80 - 120*	*05/10/12 00:00*	*05/10/12 20:25*	*20.0*
4-Bromofluorobenzene	*92*		*80 - 120*	*05/10/12 00:00*	*05/10/12 20:25*	*20.0*

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<6330		6330		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Benzene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Bromobenzene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Bromochloromethane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Bromodichloromethane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Bromoform	<1270		1270		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Bromomethane	<2530		2530		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
2-Butanone (MEK)	<6330		6330		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
n-Butylbenzene	**5600**		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
sec-Butylbenzene	**3530**		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
tert-Butylbenzene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Carbon disulfide	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Carbon Tetrachloride	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Chlorobenzene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Chlorodibromomethane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Chloroethane	<2530		2530		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Chloroform	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Chloromethane	<2530		2530		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
2-Chlorotoluene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
4-Chlorotoluene	**1220**		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,2-Dibromo-3-chloropropane	<6330		6330		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,2-Dibromoethane (EDB)	<6330		6330		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Dibromomethane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,2-Dichlorobenzene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,3-Dichlorobenzene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,4-Dichlorobenzene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Dichlorodifluoromethane	<1900		1900		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,1-Dichloroethane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,2-Dichloroethane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,1-Dichloroethene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
cis-1,2-Dichloroethene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
trans-1,2-Dichloroethene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,2-Dichloropropane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 06-08

Date Collected: 05/03/12 17:25
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-16

Matrix: Soil
Percent Solids: 78.9

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
2,2-Dichloropropane	<2530		2530		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,1-Dichloropropene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
cis-1,3-Dichloropropene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
trans-1,3-Dichloropropene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Ethylbenzene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Hexachlorobutadiene	<3170		3170		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Hexane	<3170		3170		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Isopropylbenzene	**2360**		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
p-Isopropyltoluene	**2410**		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Methylene Chloride	<6330		6330		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Methyl tert-Butyl Ether	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Naphthalene	<3170		3170		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
n-Propylbenzene	**6580**		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Styrene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,1,1,2-Tetrachloroethane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,1,2,2-Tetrachloroethane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Tetrachloroethene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Toluene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,2,3-Trichlorobenzene	<3170		3170		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,2,4-Trichlorobenzene	<3170		3170		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,1,1-Trichloroethane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,1,2-Trichloroethane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Trichloroethene	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Trichlorofluoromethane	<2530		2530		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,2,3-Trichloropropane	<633		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,2,4-Trimethylbenzene	**27500**		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
1,3,5-Trimethylbenzene	**10900**		633		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Vinyl chloride	<1900		1900		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100
Xylenes, total	**2470**		1900		ug/kg dry	☼	05/12/12 00:00	05/12/12 20:44	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*75 - 125*	*05/12/12 00:00*	*05/12/12 20:44*	*100*
Toluene-d8	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 20:44*	*100*
4-Bromofluorobenzene	*102*		*80 - 120*	*05/12/12 00:00*	*05/12/12 20:44*	*100*

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
2,4-Dinitrotoluene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
Hexachlorobenzene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
Hexachloroethane	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
Hexachlorobutadiene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
Nitrobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
Pyridine	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
Cresol(s)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
2-Methylphenol (o-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
4-Methylphenol (p-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
Pentachlorophenol	<0.350		0.350		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
2,4,5-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:47	1.00
2,4,6-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:47	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 06-08

Date Collected: 05/03/12 17:25
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-16

Matrix: Soil
Percent Solids: 78.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*79*		*20 - 90*	*05/10/12 11:04*	*05/15/12 16:47*	*1.00*
2-Fluorobiphenyl	*72*		*25 - 95*	*05/10/12 11:04*	*05/15/12 16:47*	*1.00*
Terphenyl-d14	*79*		*35 - 110*	*05/10/12 11:04*	*05/15/12 16:47*	*1.00*
Phenol-d6	*34*		*10 - 45*	*05/10/12 11:04*	*05/15/12 16:47*	*1.00*
2-Fluorophenol	*48*		*10 - 60*	*05/10/12 11:04*	*05/15/12 16:47*	*1.00*
2,4,6-Tribromophenol	*82*		*30 - 105*	*05/10/12 11:04*	*05/15/12 16:47*	*1.00*

Method: SW 8270D - Semivolatile Organics by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Acenaphthylene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Anthracene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Benzidine	<10.2		10.2		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Benzo (a) anthracene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Benzo (b) fluoranthene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Benzo (k) fluoranthene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Benzo (a) pyrene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Benzo (g,h,i) perylene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Benzyl alcohol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Butyl benzyl phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Bis(2-chloroethyl)ether	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Bis(2-chloroethoxy)methane	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Bis(2-ethylhexyl)phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Bis(2-chloroisopropyl) ether	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
4-Bromophenyl phenyl ether	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Carbazole	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
4-Chloroaniline	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2-Chloronaphthalene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
4-Chlorophenyl phenyl ether	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Chrysene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Dibenzo (a,h) anthracene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Dibenzofuran	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Di-n-butyl phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
1,2-Dichlorobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
1,3-Dichlorobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
1,4-Dichlorobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
3,3'-Dichlorobenzidine	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Diethyl phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Dimethyl phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2,4-Dinitrotoluene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2,6-Dinitrotoluene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Di-n-octyl phthalate	**3.31**		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Fluoranthene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Fluorene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Hexachlorobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Hexachlorobutadiene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Hexachlorocyclopentadiene	<2.04		2.04		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Hexachloroethane	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Indeno (1,2,3-cd) pyrene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Isophorone	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2-Methylnaphthalene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Naphthalene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00

Client Sample ID: SB-03(MIP-30) 06-08

Date Collected: 05/03/12 17:25
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-16

Matrix: Soil
Percent Solids: 78.9

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
3-Nitroaniline	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
4-Nitroaniline	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Nitrobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
N-Nitrosodimethylamine	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
N-Nitrosodiphenylamine	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
N-Nitrosodi-n-propylamine	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Phenanthrene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Pyrene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Pyridine	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
1,2,4-Trichlorobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Benzoic acid	<2.04		2.04		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
4-Chloro-3-methylphenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2-Chlorophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Cresol(s)	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2,4-Dichlorophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2,4-Dimethylphenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2,4-Dinitrophenol	<2.04		2.04		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
4,6-Dinitro-2-methylphenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2-Methylphenol (o-Cresol)	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
4-Methylphenol (p-Cresol)	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2-Nitrophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
4-Nitrophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Pentachlorophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
Phenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2,4,5-Trichlorophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00
2,4,6-Trichlorophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:40	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*44*		*15 - 90*	*05/08/12 10:17*	*05/09/12 21:40*	*1.00*
2-Fluorobiphenyl	*53*		*20 - 90*	*05/08/12 10:17*	*05/09/12 21:40*	*1.00*
Terphenyl-d14	*74*		*35 - 110*	*05/08/12 10:17*	*05/09/12 21:40*	*1.00*
Phenol-d6	*46*		*20 - 90*	*05/08/12 10:17*	*05/09/12 21:40*	*1.00*
2-Fluorophenol	*42*		*15 - 90*	*05/08/12 10:17*	*05/09/12 21:40*	*1.00*
2,4,6-Tribromophenol	*64*		*25 - 105*	*05/08/12 10:17*	*05/09/12 21:40*	*1.00*

Method: 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.050		0.10	0.050	mg/L		05/14/12 08:54	05/15/12 14:47	1
Silvex (2,4,5-TP)	<0.050		0.10	0.050	mg/L		05/14/12 08:54	05/15/12 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*70*		*30 - 129*	*05/14/12 08:54*	*05/15/12 14:47*	*1*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**3810**		50.0		mg/kg		05/08/12 10:10	05/10/12 14:09	5.00
Diesel	**571**		10.0		mg/kg		05/08/12 10:10	05/09/12 17:14	1.00
Gasoline	**438**		10.0		mg/kg		05/08/12 10:10	05/09/12 17:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane		*ZX*	*60 - 145*	*05/08/12 10:10*	*05/09/12 17:14*	*1.00*

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 06-08

Date Collected: 05/03/12 17:25
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-16

Matrix: Soil
Percent Solids: 78.9

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil	**2800**		50.0		mg/kg		05/08/12 10:10	05/10/12 14:09	5.00

Method: SW 8081B - TCLP Pesticides by EPA Method 1311/8081A - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	<0.00333		0.00333		mg/L		05/09/12 10:48	05/16/12 18:48	1.00
Endrin	<0.000533		0.000533		mg/L		05/09/12 10:48	05/16/12 18:48	1.00
gamma-BHC (Lindane)	<0.000533		0.000533		mg/L		05/09/12 10:48	05/16/12 18:48	1.00
Heptachlor	<0.000533		0.000533		mg/L		05/09/12 10:48	05/16/12 18:48	1.00
Heptachlor epoxide	<0.000533		0.000533		mg/L		05/09/12 10:48	05/16/12 18:48	1.00
Methoxychlor	<0.000533		0.000533		mg/L		05/09/12 10:48	05/16/12 18:48	1.00
Toxaphene	<0.00333		0.00333		mg/L		05/09/12 10:48	05/16/12 18:48	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl	*58*		*45 - 130*	*05/09/12 10:48*	*05/16/12 18:48*	*1.00*
Tetrachloro-meta-xylene	*58*		*30 - 100*	*05/09/12 10:48*	*05/16/12 18:48*	*1.00*

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.151		0.151		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:14	1.00
PCB-1221	<0.151		0.151		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:14	1.00
PCB-1232	<0.151		0.151		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:14	1.00
PCB-1242	<0.151		0.151		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:14	1.00
PCB-1248	<0.151		0.151		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:14	1.00
PCB-1254	<0.151		0.151		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:14	1.00
PCB-1260	<0.151		0.151		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:14	1.00
PCB-1268	<0.151		0.151		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl	*89*		*40 - 120*	*05/09/12 10:43*	*05/17/12 11:14*	*1.00*
Tetrachloro-meta-xylene	*89*		*10 - 105*	*05/09/12 10:43*	*05/17/12 11:14*	*1.00*

Method: SW 7470A - TCLP Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		05/10/12 16:00	05/11/12 11:39	1.00

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0230		0.0230		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:07	1.00

Method: SW 6010C - TCLP Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.300		0.300		mg/L		05/09/12 13:10	05/10/12 20:45	1.00
Barium	**1.33**		0.100		mg/L		05/09/12 13:10	05/10/12 20:45	1.00
Cadmium	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:45	1.00
Chromium	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:45	1.00
Lead	**0.346**		0.100		mg/L		05/09/12 13:10	05/10/12 20:45	1.00
Selenium	<0.150		0.150		mg/L		05/09/12 13:10	05/10/12 20:45	1.00
Silver	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:45	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<5.07		5.07		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:29	1.00
Barium	**116**		0.633		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:29	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 06-08

Date Collected: 05/03/12 17:25
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-16

Matrix: Soil
Percent Solids: 78.9

Method: SW 6010C - Total Metals by SW 846 Series Methods (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<1.27		1.27		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:29	1.00
Chromium	**19.3**		1.27		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:29	1.00
Lead	**9.00**		6.33		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:29	1.00
Selenium	<9.50		9.50		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:29	1.00
Silver	**1.96**		1.27		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:29	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<12		31	12	mg/Kg	☼	05/10/12 17:20	05/11/12 10:18	1
HEM (Oil & Grease)	**8700**	**B**	620	120	mg/Kg	☼	05/15/12 07:00	05/15/12 13:09	1
Percent Moisture	**21**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**79**		0.10	0.10	%			05/15/12 11:20	1

Method: ASTM D92 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>212°F**				°F		05/15/12 15:15	05/15/12 15:17	1.00

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**78.9**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Method: SW 9012A Mod - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide	<1.27		1.27		mg/kg dry	☼	05/14/12 19:30	05/14/12 21:45	1.00

Method: SW 9045D - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.09**	**H3**	0.100		pH Units		05/10/12 15:43	05/10/12 15:43	1.00

Method: SW 1311 - TCLP Extraction by EPA 1311

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ZHE Temperature Minimum	**20.0**	**T6**			°C		05/09/12 09:45	05/10/12 09:56	1.00
ZHE Temperature Maximum	**25.2**	**T6**			°C		05/09/12 09:45	05/10/12 09:56	1.00

Method: SW 1311 - TCLP Extraction by EPA 1311 - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TCLP Extraction Temp. Minimum	**21.1**				°C		05/07/12 16:00	05/08/12 09:59	1.00
TCLP Extraction Temp. Maximum	**23.3**				°C		05/07/12 16:00	05/08/12 09:59	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 16-18

Date Collected: 05/03/12 17:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-17

Matrix: Soil
Percent Solids: 86.6

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4230		4230		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Benzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Bromobenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Bromochloromethane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Bromodichloromethane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Bromoform	<846		846		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Bromomethane	<1690		1690		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
2-Butanone (MEK)	<4230		4230		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
n-Butylbenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
sec-Butylbenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
tert-Butylbenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Carbon disulfide	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Carbon Tetrachloride	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Chlorobenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Chlorodibromomethane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Chloroethane	<1690		1690		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Chloroform	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Chloromethane	<1690		1690		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
2-Chlorotoluene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
4-Chlorotoluene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,2-Dibromo-3-chloropropane	<4230		4230		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,2-Dibromoethane (EDB)	<4230		4230		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Dibromomethane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,2-Dichlorobenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,3-Dichlorobenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,4-Dichlorobenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Dichlorodifluoromethane	<1270		1270		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,1-Dichloroethane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,2-Dichloroethane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,1-Dichloroethene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
cis-1,2-Dichloroethene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
trans-1,2-Dichloroethene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,2-Dichloropropane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,3-Dichloropropane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
2,2-Dichloropropane	<1690		1690		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,1-Dichloropropene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
cis-1,3-Dichloropropene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
trans-1,3-Dichloropropene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Ethylbenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Hexachlorobutadiene	<2120		2120		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Hexane	<2120		2120		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Isopropylbenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
p-Isopropyltoluene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Methylene Chloride	<4230		4230		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Methyl tert-Butyl Ether	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Naphthalene	<2120		2120		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
n-Propylbenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Styrene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,1,1,2-Tetrachloroethane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,1,2,2-Tetrachloroethane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Tetrachloroethene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 16-18

Date Collected: 05/03/12 17:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-17

Matrix: Soil
Percent Solids: 86.6

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,2,3-Trichlorobenzene	<2120		2120		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,2,4-Trichlorobenzene	<2120		2120		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,1,1-Trichloroethane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,1,2-Trichloroethane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Trichloroethene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Trichlorofluoromethane	<1690		1690		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,2,3-Trichloropropane	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,2,4-Trimethylbenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
1,3,5-Trimethylbenzene	<423		423		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Vinyl chloride	<1270		1270		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100
Xylenes, total	<1270		1270		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:07	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*75 - 125*	*05/12/12 00:00*	*05/12/12 21:07*	*100*
Toluene-d8	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 21:07*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 21:07*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**16.7**		10.0		mg/kg		05/08/12 10:10	05/09/12 17:56	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 17:56	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 17:56	1.00
Motor Oil	**16.7**	**Q**	10.0		mg/kg		05/08/12 10:10	05/09/12 17:56	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*93*		*60 - 145*	*05/08/12 10:10*	*05/09/12 17:56*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**180**	**J B**	550	110	mg/Kg	☼	05/15/12 07:00	05/15/12 13:14	1
Percent Moisture	**13**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**87**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.6**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-07(MIP-29) 02-04

Lab Sample ID: CVE0494-18

Date Collected: 05/03/12 19:05
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 83

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 18:37	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 18:37	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 18:37	1.00
Motor Oil	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 18:37	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*80*		*60 - 145*	*05/08/12 10:10*	*05/09/12 18:37*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**110**	**J B**	590	110	mg/Kg	☼	05/17/12 07:00	05/17/12 11:37	1
Percent Moisture	**17**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**83**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**83.0**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-09(MIP-09) 03-05

Lab Sample ID: CVE0494-19

Date Collected: 05/03/12 19:25
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 82.6

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 19:18	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 19:18	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 19:18	1.00
Motor Oil	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 19:18	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*74*		*60 - 145*	*05/08/12 10:10*	*05/09/12 19:18*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**220**	**J B**	580	110	mg/Kg	☼	05/17/12 07:00	05/17/12 12:02	1
Percent Moisture	**17**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**83**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**82.6**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-08(MIP-25) 02-04

Date Collected: 05/03/12 19:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-20

Matrix: Soil
Percent Solids: 82.4

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Benzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Bromobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Bromochloromethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Bromodichloromethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Bromoform	<990		990		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Bromomethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
2-Butanone (MEK)	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
n-Butylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
sec-Butylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
tert-Butylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Carbon disulfide	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Carbon Tetrachloride	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Chlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Chlorodibromomethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Chloroethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Chloroform	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Chloromethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
2-Chlorotoluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
4-Chlorotoluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,2-Dibromo-3-chloropropane	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,2-Dibromoethane (EDB)	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Dibromomethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,2-Dichlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,3-Dichlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,4-Dichlorobenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Dichlorodifluoromethane	<1480		1480		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,1-Dichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,2-Dichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,1-Dichloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
cis-1,2-Dichloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
trans-1,2-Dichloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,2-Dichloropropane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,3-Dichloropropane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
2,2-Dichloropropane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,1-Dichloropropene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
cis-1,3-Dichloropropene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
trans-1,3-Dichloropropene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Ethylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Hexachlorobutadiene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Hexane	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Isopropylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
p-Isopropyltoluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Methylene Chloride	<4950		4950		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Methyl tert-Butyl Ether	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Naphthalene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
n-Propylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Styrene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,1,1,2-Tetrachloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,1,2,2-Tetrachloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Tetrachloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-08(MIP-25) 02-04

Date Collected: 05/03/12 19:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-20

Matrix: Soil
Percent Solids: 82.4

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,2,3-Trichlorobenzene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,2,4-Trichlorobenzene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,1,1-Trichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,1,2-Trichloroethane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Trichloroethene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Trichlorofluoromethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,2,3-Trichloropropane	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,2,4-Trimethylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
1,3,5-Trimethylbenzene	<495		495		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Vinyl chloride	<1480		1480		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100
Xylenes, total	<1480		1480		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:30	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 21:30*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 21:30*	*100*
4-Bromofluorobenzene	*98*		*80 - 120*	*05/12/12 00:00*	*05/12/12 21:30*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 20:00	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 20:00	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 20:00	1.00
Motor Oil	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 20:00	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*76*		*60 - 145*	*05/08/12 10:10*	*05/09/12 20:00*	*1.00*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0243		0.0243		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:09	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<14.6	IE	14.6		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:46	3.00
Barium	**78.5**		1.82		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:46	3.00
Cadmium	<3.64	IE	3.64		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:46	3.00
Chromium	**17.4**		3.64		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:46	3.00
Lead	<18.2	IE	18.2		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:46	3.00
Selenium	<27.3	IE	27.3		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:46	3.00
Silver	<3.64	IE	3.64		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:46	3.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**170**	**J B**	560	110	mg/Kg	☼	05/17/12 07:00	05/17/12 12:11	1
Percent Moisture	**18**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**82**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**82.4**		0.1		%		05/08/12 15:14	05/08/12 15:14	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Duplicate-2

Lab Sample ID: CVE0494-21

Date Collected: 05/03/12 00:00
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 82.6

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4850		4850		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Benzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Bromobenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Bromochloromethane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Bromodichloromethane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Bromoform	<969		969		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Bromomethane	<1940		1940		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
2-Butanone (MEK)	<4850		4850		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
n-Butylbenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
sec-Butylbenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
tert-Butylbenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Carbon disulfide	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Carbon Tetrachloride	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Chlorobenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Chlorodibromomethane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Chloroethane	<1940		1940		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Chloroform	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Chloromethane	<1940		1940		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
2-Chlorotoluene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
4-Chlorotoluene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,2-Dibromo-3-chloropropane	<4850		4850		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,2-Dibromoethane (EDB)	<4850		4850		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Dibromomethane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,2-Dichlorobenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,3-Dichlorobenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,4-Dichlorobenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Dichlorodifluoromethane	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,1-Dichloroethane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,2-Dichloroethane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,1-Dichloroethene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
cis-1,2-Dichloroethene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
trans-1,2-Dichloroethene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,2-Dichloropropane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,3-Dichloropropane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
2,2-Dichloropropane	<1940		1940		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,1-Dichloropropene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
cis-1,3-Dichloropropene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
trans-1,3-Dichloropropene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Ethylbenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Hexachlorobutadiene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Hexane	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Isopropylbenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
p-Isopropyltoluene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Methylene Chloride	<4850		4850		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Methyl tert-Butyl Ether	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Naphthalene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
n-Propylbenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Styrene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,1,1,2-Tetrachloroethane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,1,2,2-Tetrachloroethane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Tetrachloroethene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100

Client Sample ID: Duplicate-2

Date Collected: 05/03/12 00:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-21

Matrix: Soil
Percent Solids: 82.6

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,2,3-Trichlorobenzene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,2,4-Trichlorobenzene	<2420		2420		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,1,1-Trichloroethane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,1,2-Trichloroethane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Trichloroethene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Trichlorofluoromethane	<1940		1940		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,2,3-Trichloropropane	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,2,4-Trimethylbenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
1,3,5-Trimethylbenzene	<485		485		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Vinyl chloride	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100
Xylenes, total	<1450		1450		ug/kg dry	☼	05/12/12 00:00	05/12/12 21:53	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 21:53*	*100*
Toluene-d8	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 21:53*	*100*
4-Bromofluorobenzene	*98*		*80 - 120*	*05/12/12 00:00*	*05/12/12 21:53*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 20:41	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 20:41	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 20:41	1.00
Motor Oil	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 20:41	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*76*		*60 - 145*	*05/08/12 10:10*	*05/09/12 20:41*	*1.00*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0242		0.0242		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:11	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<14.5	IE	14.5		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:47	3.00
Barium	**71.7**		1.82		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:47	3.00
Cadmium	<3.63	IE	3.63		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:47	3.00
Chromium	**16.1**		3.63		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:47	3.00
Lead	<18.2	IE	18.2		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:47	3.00
Selenium	<27.2	IE	27.2		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:47	3.00
Silver	<3.63	IE	3.63		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:47	3.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**140**	**J B**	600	120	mg/Kg	☼	05/17/12 07:00	05/17/12 12:19	1
Percent Moisture	**17**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**83**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**82.6**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-08(MIP-25) 10-12

Date Collected: 05/03/12 20:05
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-22

Matrix: Soil
Percent Solids: 86.5

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5780		5780		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Benzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Bromobenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Bromochloromethane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Bromodichloromethane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Bromoform	<1160		1160		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Bromomethane	<2310		2310		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
2-Butanone (MEK)	<5780		5780		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
n-Butylbenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
sec-Butylbenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
tert-Butylbenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Carbon disulfide	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Carbon Tetrachloride	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Chlorobenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Chlorodibromomethane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Chloroethane	<2310		2310		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Chloroform	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Chloromethane	<2310		2310		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
2-Chlorotoluene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
4-Chlorotoluene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,2-Dibromo-3-chloropropane	<5780		5780		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,2-Dibromoethane (EDB)	<5780		5780		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Dibromomethane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,2-Dichlorobenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,3-Dichlorobenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,4-Dichlorobenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Dichlorodifluoromethane	<1730		1730		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,1-Dichloroethane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,2-Dichloroethane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,1-Dichloroethene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
cis-1,2-Dichloroethene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
trans-1,2-Dichloroethene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,2-Dichloropropane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,3-Dichloropropane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
2,2-Dichloropropane	<2310		2310		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,1-Dichloropropene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
cis-1,3-Dichloropropene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
trans-1,3-Dichloropropene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Ethylbenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Hexachlorobutadiene	<2890		2890		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Hexane	<2890		2890		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Isopropylbenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
p-Isopropyltoluene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Methylene Chloride	<5780		5780		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Methyl tert-Butyl Ether	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Naphthalene	<2890		2890		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
n-Propylbenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Styrene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,1,1,2-Tetrachloroethane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,1,2,2-Tetrachloroethane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Tetrachloroethene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-08(MIP-25) 10-12

Date Collected: 05/03/12 20:05
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-22

Matrix: Soil
Percent Solids: 86.5

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,2,3-Trichlorobenzene	<2890		2890		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,2,4-Trichlorobenzene	<2890		2890		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,1,1-Trichloroethane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,1,2-Trichloroethane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Trichloroethene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Trichlorofluoromethane	<2310		2310		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,2,3-Trichloropropane	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,2,4-Trimethylbenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
1,3,5-Trimethylbenzene	<578		578		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Vinyl chloride	<1730		1730		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100
Xylenes, total	<1730		1730		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:16	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99*		*75 - 125*	*05/12/12 00:00*	*05/12/12 22:16*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 22:16*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 22:16*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 21:22	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 21:22	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 21:22	1.00
Motor Oil	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 21:22	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*83*		*60 - 145*	*05/08/12 10:10*	*05/09/12 21:22*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**160**	**J B**	570	110	mg/Kg	☼	05/17/12 07:00	05/17/12 12:28	1
Percent Moisture	**14**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**87**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.5**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-05(MIP-23) 02-04

Date Collected: 05/04/12 08:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-23

Matrix: Soil
Percent Solids: 80.8

Method: SW 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0100		0.0100		mg/L		05/10/12 00:00	05/10/12 20:48	20.0
2-Butanone (MEK)	<0.200	L	0.200		mg/L		05/10/12 00:00	05/10/12 20:48	20.0
Carbon Tetrachloride	<0.0400		0.0400		mg/L		05/10/12 00:00	05/10/12 20:48	20.0
Chlorobenzene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:48	20.0
Chloroform	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:48	20.0
1,2-Dichloroethane	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:48	20.0
1,1-Dichloroethene	<0.0400		0.0400		mg/L		05/10/12 00:00	05/10/12 20:48	20.0
Tetrachloroethene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:48	20.0
Trichloroethene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:48	20.0
Vinyl chloride	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 20:48	20.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*112*		*75 - 125*	*05/10/12 00:00*	*05/10/12 20:48*	*20.0*
Toluene-d8	*103*		*80 - 120*	*05/10/12 00:00*	*05/10/12 20:48*	*20.0*
4-Bromofluorobenzene	*93*		*80 - 120*	*05/10/12 00:00*	*05/10/12 20:48*	*20.0*

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5580		5580		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Benzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Bromobenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Bromochloromethane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Bromodichloromethane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Bromoform	<1120		1120		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Bromomethane	<2230		2230		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
2-Butanone (MEK)	<5580		5580		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
n-Butylbenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
sec-Butylbenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
tert-Butylbenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Carbon disulfide	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Carbon Tetrachloride	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Chlorobenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Chlorodibromomethane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Chloroethane	<2230		2230		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Chloroform	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Chloromethane	<2230		2230		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
2-Chlorotoluene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
4-Chlorotoluene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,2-Dibromo-3-chloropropane	<5580		5580		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,2-Dibromoethane (EDB)	<5580		5580		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Dibromomethane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,2-Dichlorobenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,3-Dichlorobenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,4-Dichlorobenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Dichlorodifluoromethane	<1680		1680		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,1-Dichloroethane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,2-Dichloroethane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,1-Dichloroethene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
cis-1,2-Dichloroethene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
trans-1,2-Dichloroethene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,2-Dichloropropane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-05(MIP-23) 02-04

Date Collected: 05/04/12 08:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-23

Matrix: Soil
Percent Solids: 80.8

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
2,2-Dichloropropane	<2230		2230		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,1-Dichloropropene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
cis-1,3-Dichloropropene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
trans-1,3-Dichloropropene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Ethylbenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Hexachlorobutadiene	<2790		2790		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Hexane	<2790		2790		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Isopropylbenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
p-Isopropyltoluene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Methylene Chloride	<5580		5580		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Methyl tert-Butyl Ether	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Naphthalene	<2790		2790		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
n-Propylbenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Styrene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,1,1,2-Tetrachloroethane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,1,2,2-Tetrachloroethane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Tetrachloroethene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Toluene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,2,3-Trichlorobenzene	<2790		2790		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,2,4-Trichlorobenzene	<2790		2790		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,1,1-Trichloroethane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,1,2-Trichloroethane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Trichloroethene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Trichlorofluoromethane	<2230		2230		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,2,3-Trichloropropane	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,2,4-Trimethylbenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
1,3,5-Trimethylbenzene	<558		558		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Vinyl chloride	<1680		1680		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100
Xylenes, total	<1680		1680		ug/kg dry	☼	05/12/12 00:00	05/12/12 22:39	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 22:39*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 22:39*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 22:39*	*100*

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
2,4-Dinitrotoluene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
Hexachlorobenzene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
Hexachloroethane	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
Hexachlorobutadiene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
Nitrobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
Pyridine	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
Cresol(s)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
2-Methylphenol (o-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
4-Methylphenol (p-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
Pentachlorophenol	<0.350		0.350		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
2,4,5-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:15	1.00
2,4,6-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:15	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-05(MIP-23) 02-04

Date Collected: 05/04/12 08:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-23

Matrix: Soil
Percent Solids: 80.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*51*		*20 - 90*	*05/10/12 11:04*	*05/15/12 15:15*	*1.00*
2-Fluorobiphenyl	*49*		*25 - 95*	*05/10/12 11:04*	*05/15/12 15:15*	*1.00*
Terphenyl-d14	*61*		*35 - 110*	*05/10/12 11:04*	*05/15/12 15:15*	*1.00*
Phenol-d6	*23*		*10 - 45*	*05/10/12 11:04*	*05/15/12 15:15*	*1.00*
2-Fluorophenol	*32*		*10 - 60*	*05/10/12 11:04*	*05/15/12 15:15*	*1.00*
2,4,6-Tribromophenol	*55*		*30 - 105*	*05/10/12 11:04*	*05/15/12 15:15*	*1.00*

Method: SW 8270D - Semivolatile Organics by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Acenaphthylene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Anthracene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Benzidine	<10.2		10.2		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Benzo (a) anthracene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Benzo (b) fluoranthene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Benzo (k) fluoranthene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Benzo (a) pyrene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Benzo (g,h,i) perylene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Benzyl alcohol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Butyl benzyl phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Bis(2-chloroethyl)ether	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Bis(2-chloroethoxy)methane	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Bis(2-ethylhexyl)phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Bis(2-chloroisopropyl) ether	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
4-Bromophenyl phenyl ether	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Carbazole	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
4-Chloroaniline	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2-Chloronaphthalene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
4-Chlorophenyl phenyl ether	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Chrysene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Dibenzo (a,h) anthracene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Dibenzofuran	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Di-n-butyl phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
1,2-Dichlorobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
1,3-Dichlorobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
1,4-Dichlorobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
3,3'-Dichlorobenzidine	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Diethyl phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Dimethyl phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2,4-Dinitrotoluene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2,6-Dinitrotoluene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Di-n-octyl phthalate	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Fluoranthene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Fluorene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Hexachlorobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Hexachlorobutadiene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Hexachlorocyclopentadiene	<2.03		2.03		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Hexachloroethane	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Indeno (1,2,3-cd) pyrene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Isophorone	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2-Methylnaphthalene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Naphthalene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-05(MIP-23) 02-04

Date Collected: 05/04/12 08:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-23

Matrix: Soil
Percent Solids: 80.8

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
3-Nitroaniline	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
4-Nitroaniline	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Nitrobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
N-Nitrosodimethylamine	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
N-Nitrosodiphenylamine	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
N-Nitrosodi-n-propylamine	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Phenanthrene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Pyrene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Pyridine	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
1,2,4-Trichlorobenzene	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Benzoic acid	<2.03		2.03		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
4-Chloro-3-methylphenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2-Chlorophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Cresol(s)	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2,4-Dichlorophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2,4-Dimethylphenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2,4-Dinitrophenol	<2.03		2.03		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
4,6-Dinitro-2-methylphenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2-Methylphenol (o-Cresol)	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
4-Methylphenol (p-Cresol)	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2-Nitrophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
4-Nitrophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Pentachlorophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
Phenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2,4,5-Trichlorophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00
2,4,6-Trichlorophenol	<1.02		1.02		mg/kg dry	☼	05/08/12 10:17	05/09/12 21:09	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*49*		*15 - 90*	*05/08/12 10:17*	*05/09/12 21:09*	*1.00*
2-Fluorobiphenyl	*48*		*20 - 90*	*05/08/12 10:17*	*05/09/12 21:09*	*1.00*
Terphenyl-d14	*72*		*35 - 110*	*05/08/12 10:17*	*05/09/12 21:09*	*1.00*
Phenol-d6	*55*		*20 - 90*	*05/08/12 10:17*	*05/09/12 21:09*	*1.00*
2-Fluorophenol	*49*		*15 - 90*	*05/08/12 10:17*	*05/09/12 21:09*	*1.00*
2,4,6-Tribromophenol	*59*		*25 - 105*	*05/08/12 10:17*	*05/09/12 21:09*	*1.00*

Method: 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.050		0.10	0.050	mg/L		05/14/12 08:54	05/15/12 15:09	1
Silvex (2,4,5-TP)	<0.050		0.10	0.050	mg/L		05/14/12 08:54	05/15/12 15:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*78*		*30 - 129*	*05/14/12 08:54*	*05/15/12 15:09*	*1*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**27.0**		10.0		mg/kg		05/08/12 10:10	05/09/12 23:27	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 23:27	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 23:27	1.00
Motor Oil	**27.0**		10.0		mg/kg		05/08/12 10:10	05/09/12 23:27	1.00

Client Sample ID: SB-05(MIP-23) 02-04

Date Collected: 05/04/12 08:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-23

Matrix: Soil
Percent Solids: 80.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Octacosane	*74*		*60 - 145*	*05/08/12 10:10*	*05/09/12 23:27*	*1.00*

Method: SW 8081B - TCLP Pesticides by EPA Method 1311/8081A - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	<0.00300		0.00300		mg/L		05/09/12 10:48	05/16/12 19:00	1.00
Endrin	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:00	1.00
gamma-BHC (Lindane)	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:00	1.00
Heptachlor	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:00	1.00
Heptachlor epoxide	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:00	1.00
Methoxychlor	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:00	1.00
Toxaphene	<0.00300		0.00300		mg/L		05/09/12 10:48	05/16/12 19:00	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Decachlorobiphenyl	*76*		*45 - 130*	*05/09/12 10:48*	*05/16/12 19:00*	*1.00*
Tetrachloro-meta-xylene	*63*		*30 - 100*	*05/09/12 10:48*	*05/16/12 19:00*	*1.00*

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0619		0.0619		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:31	1.00
PCB-1221	<0.0619		0.0619		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:31	1.00
PCB-1232	<0.0619		0.0619		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:31	1.00
PCB-1242	<0.0619		0.0619		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:31	1.00
PCB-1248	<0.0619		0.0619		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:31	1.00
PCB-1254	<0.0619		0.0619		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:31	1.00
PCB-1260	<0.0619		0.0619		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:31	1.00
PCB-1268	<0.0619		0.0619		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:31	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Decachlorobiphenyl	*79*		*40 - 120*	*05/09/12 10:43*	*05/17/12 11:31*	*1.00*
Tetrachloro-meta-xylene	*57*		*10 - 105*	*05/09/12 10:43*	*05/17/12 11:31*	*1.00*

Method: SW 7470A - TCLP Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		05/10/12 16:00	05/11/12 11:40	1.00

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0247		0.0247		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:16	1.00

Method: SW 6010C - TCLP Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.300		0.300		mg/L		05/09/12 13:10	05/10/12 20:46	1.00
Barium	**0.558**		0.100		mg/L		05/09/12 13:10	05/10/12 20:46	1.00
Cadmium	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:46	1.00
Chromium	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:46	1.00
Lead	<0.100		0.100		mg/L		05/09/12 13:10	05/10/12 20:46	1.00
Selenium	<0.150		0.150		mg/L		05/09/12 13:10	05/10/12 20:46	1.00
Silver	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:46	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<4.95		4.95		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:33	1.00
Barium	**153**		0.619		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:33	1.00

Client Sample ID: SB-05(MIP-23) 02-04

Lab Sample ID: CVE0494-23

Date Collected: 05/04/12 08:50
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 80.8

Method: SW 6010C - Total Metals by SW 846 Series Methods (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<1.24		1.24		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:33	1.00
Chromium	**21.2**		1.24		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:33	1.00
Lead	**16.8**		6.19		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:33	1.00
Selenium	<9.28		9.28		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:33	1.00
Silver	**2.69**		1.24		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:33	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<11		29	11	mg/Kg	☼	05/10/12 17:20	05/11/12 10:19	1
HEM (Oil & Grease)	**170**	**J B**	620	120	mg/Kg	☼	05/17/12 07:00	05/17/12 12:36	1
Percent Moisture	**19**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**81**		0.10	0.10	%			05/15/12 11:20	1

Method: ASTM D92 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>212°F**				°F		05/15/12 15:15	05/15/12 15:17	1.00

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**80.8**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Method: SW 9012A Mod - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide	<1.24		1.24		mg/kg dry	☼	05/14/12 19:30	05/14/12 21:48	1.00

Method: SW 9045D - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.84**	**H3**	0.100		pH Units		05/10/12 15:44	05/10/12 15:44	1.00

Method: SW 1311 - TCLP Extraction by EPA 1311

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ZHE Temperature Minimum	**20.0**	**T6**			°C		05/09/12 09:45	05/10/12 09:56	1.00
ZHE Temperature Maximum	**25.2**	**T6**			°C		05/09/12 09:45	05/10/12 09:56	1.00

Method: SW 1311 - TCLP Extraction by EPA 1311 - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TCLP Extraction Temp. Minimum	**21.1**				°C		05/07/12 16:00	05/08/12 09:59	1.00
TCLP Extraction Temp. Maximum	**23.3**				°C		05/07/12 16:00	05/08/12 09:59	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-05(MIP-23) 06-08

Date Collected: 05/04/12 09:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-24

Matrix: Soil
Percent Solids: 79.5

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5600		5600		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Benzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Bromobenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Bromochloromethane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Bromodichloromethane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Bromoform	<1120		1120		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Bromomethane	<2240		2240		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
2-Butanone (MEK)	<5600		5600		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
n-Butylbenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
sec-Butylbenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
tert-Butylbenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Carbon disulfide	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Carbon Tetrachloride	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Chlorobenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Chlorodibromomethane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Chloroethane	<2240		2240		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Chloroform	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Chloromethane	<2240		2240		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
2-Chlorotoluene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
4-Chlorotoluene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,2-Dibromo-3-chloropropane	<5600		5600		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,2-Dibromoethane (EDB)	<5600		5600		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Dibromomethane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,2-Dichlorobenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,3-Dichlorobenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,4-Dichlorobenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Dichlorodifluoromethane	<1680		1680		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,1-Dichloroethane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,2-Dichloroethane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,1-Dichloroethene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
cis-1,2-Dichloroethene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
trans-1,2-Dichloroethene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,2-Dichloropropane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,3-Dichloropropane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
2,2-Dichloropropane	<2240		2240		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,1-Dichloropropene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
cis-1,3-Dichloropropene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
trans-1,3-Dichloropropene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Ethylbenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Hexachlorobutadiene	<2800		2800		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Hexane	<2800		2800		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Isopropylbenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
p-Isopropyltoluene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Methylene Chloride	<5600		5600		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Methyl tert-Butyl Ether	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Naphthalene	<2800		2800		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
n-Propylbenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Styrene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,1,1,2-Tetrachloroethane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,1,2,2-Tetrachloroethane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Tetrachloroethene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100

Client Sample ID: SB-05(MIP-23) 06-08

Date Collected: 05/04/12 09:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-24

Matrix: Soil
Percent Solids: 79.5

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,2,3-Trichlorobenzene	<2800		2800		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,2,4-Trichlorobenzene	<2800		2800		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,1,1-Trichloroethane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,1,2-Trichloroethane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Trichloroethene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Trichlorofluoromethane	<2240		2240		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,2,3-Trichloropropane	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,2,4-Trimethylbenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
1,3,5-Trimethylbenzene	<560		560		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Vinyl chloride	<1680		1680		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100
Xylenes, total	<1680		1680		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:02	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 23:02*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 23:02*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 23:02*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**21.1**		10.0		mg/kg		05/08/12 10:10	05/09/12 22:04	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 22:04	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 22:04	1.00
Motor Oil	**21.1**		10.0		mg/kg		05/08/12 10:10	05/09/12 22:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*89*		*60 - 145*	*05/08/12 10:10*	*05/09/12 22:04*	*1.00*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0222**		0.0221		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:18	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<15.1	IE	15.1		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:49	3.00
Barium	**102**		1.89		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:49	3.00
Cadmium	<3.77	IE	3.77		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:49	3.00
Chromium	**26.3**		3.77		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:49	3.00
Lead	<18.9	IE	18.9		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:49	3.00
Selenium	<28.3	IE	28.3		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:49	3.00
Silver	**4.09**		3.77		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:49	3.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**150**	**J B**	630	120	mg/Kg	☼	05/17/12 07:00	05/17/12 12:45	1
Percent Moisture	**21**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**80**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**79.5**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-05(MIP-23) 12-14

Date Collected: 05/04/12 09:15
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-25

Matrix: Soil
Percent Solids: 86.9

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4480		4480		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Benzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Bromobenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Bromochloromethane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Bromodichloromethane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Bromoform	<895		895		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Bromomethane	<1790		1790		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
2-Butanone (MEK)	<4480		4480		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
n-Butylbenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
sec-Butylbenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
tert-Butylbenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Carbon disulfide	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Carbon Tetrachloride	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Chlorobenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Chlorodibromomethane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Chloroethane	<1790		1790		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Chloroform	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Chloromethane	<1790		1790		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
2-Chlorotoluene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
4-Chlorotoluene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,2-Dibromo-3-chloropropane	<4480		4480		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,2-Dibromoethane (EDB)	<4480		4480		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Dibromomethane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,2-Dichlorobenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,3-Dichlorobenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,4-Dichlorobenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Dichlorodifluoromethane	<1340		1340		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,1-Dichloroethane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,2-Dichloroethane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,1-Dichloroethene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
cis-1,2-Dichloroethene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
trans-1,2-Dichloroethene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,2-Dichloropropane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,3-Dichloropropane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
2,2-Dichloropropane	<1790		1790		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,1-Dichloropropene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
cis-1,3-Dichloropropene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
trans-1,3-Dichloropropene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Ethylbenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Hexachlorobutadiene	<2240		2240		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Hexane	<2240		2240		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Isopropylbenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
p-Isopropyltoluene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Methylene Chloride	<4480		4480		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Methyl tert-Butyl Ether	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Naphthalene	<2240		2240		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
n-Propylbenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Styrene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,1,1,2-Tetrachloroethane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,1,2,2-Tetrachloroethane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Tetrachloroethene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-05(MIP-23) 12-14

Date Collected: 05/04/12 09:15
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-25

Matrix: Soil
Percent Solids: 86.9

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,2,3-Trichlorobenzene	<2240		2240		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,2,4-Trichlorobenzene	<2240		2240		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,1,1-Trichloroethane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,1,2-Trichloroethane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Trichloroethene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Trichlorofluoromethane	<1790		1790		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,2,3-Trichloropropane	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,2,4-Trimethylbenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
1,3,5-Trimethylbenzene	<448		448		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Vinyl chloride	<1340		1340		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100
Xylenes, total	<1340		1340		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:25	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*75 - 125*	*05/12/12 00:00*	*05/12/12 23:25*	*100*
Toluene-d8	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 23:25*	*100*
4-Bromofluorobenzene	*98*		*80 - 120*	*05/12/12 00:00*	*05/12/12 23:25*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 22:45	1.00
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 22:45	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 22:45	1.00
Motor Oil	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 22:45	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*95*		*60 - 145*	*05/08/12 10:10*	*05/09/12 22:45*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**150**	**J B**	570	110	mg/Kg	☼	05/17/12 07:00	05/17/12 12:53	1
Percent Moisture	**13**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**87**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.9**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-12(MIP-16a) 04-08

Date Collected: 05/04/12 09:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-26

Matrix: Soil
Percent Solids: 80.9

Method: SW 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0100		0.0100		mg/L		05/10/12 00:00	05/10/12 21:10	20.0
2-Butanone (MEK)	<0.200	L	0.200		mg/L		05/10/12 00:00	05/10/12 21:10	20.0
Carbon Tetrachloride	<0.0400		0.0400		mg/L		05/10/12 00:00	05/10/12 21:10	20.0
Chlorobenzene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:10	20.0
Chloroform	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:10	20.0
1,2-Dichloroethane	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:10	20.0
1,1-Dichloroethene	<0.0400		0.0400		mg/L		05/10/12 00:00	05/10/12 21:10	20.0
Tetrachloroethene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:10	20.0
Trichloroethene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:10	20.0
Vinyl chloride	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:10	20.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*108*		*75 - 125*	*05/10/12 00:00*	*05/10/12 21:10*	*20.0*
Toluene-d8	*100*		*80 - 120*	*05/10/12 00:00*	*05/10/12 21:10*	*20.0*
4-Bromofluorobenzene	*91*		*80 - 120*	*05/10/12 00:00*	*05/10/12 21:10*	*20.0*

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4940		4940		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Benzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Bromobenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Bromochloromethane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Bromodichloromethane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Bromoform	<988		988		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Bromomethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
2-Butanone (MEK)	<4940		4940		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
n-Butylbenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
sec-Butylbenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
tert-Butylbenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Carbon disulfide	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Carbon Tetrachloride	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Chlorobenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Chlorodibromomethane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Chloroethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Chloroform	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Chloromethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
2-Chlorotoluene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
4-Chlorotoluene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,2-Dibromo-3-chloropropane	<4940		4940		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,2-Dibromoethane (EDB)	<4940		4940		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Dibromomethane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,2-Dichlorobenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,3-Dichlorobenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,4-Dichlorobenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Dichlorodifluoromethane	<1480		1480		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,1-Dichloroethane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,2-Dichloroethane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,1-Dichloroethene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
cis-1,2-Dichloroethene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
trans-1,2-Dichloroethene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,2-Dichloropropane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-12(MIP-16a) 04-08

Date Collected: 05/04/12 09:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-26

Matrix: Soil
Percent Solids: 80.9

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
2,2-Dichloropropane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,1-Dichloropropene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
cis-1,3-Dichloropropene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
trans-1,3-Dichloropropene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Ethylbenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Hexachlorobutadiene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Hexane	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Isopropylbenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
p-Isopropyltoluene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Methylene Chloride	<4940		4940		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Methyl tert-Butyl Ether	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Naphthalene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
n-Propylbenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Styrene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,1,1,2-Tetrachloroethane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,1,2,2-Tetrachloroethane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Tetrachloroethene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Toluene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,2,3-Trichlorobenzene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,2,4-Trichlorobenzene	<2470		2470		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,1,1-Trichloroethane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,1,2-Trichloroethane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Trichloroethene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Trichlorofluoromethane	<1980		1980		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,2,3-Trichloropropane	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,2,4-Trimethylbenzene	**1090**		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
1,3,5-Trimethylbenzene	<494		494		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Vinyl chloride	<1480		1480		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100
Xylenes, total	<1480		1480		ug/kg dry	☼	05/12/12 00:00	05/12/12 23:48	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*75 - 125*	*05/12/12 00:00*	*05/12/12 23:48*	*100*
Toluene-d8	*100*		*80 - 120*	*05/12/12 00:00*	*05/12/12 23:48*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 23:48*	*100*

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
2,4-Dinitrotoluene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
Hexachlorobenzene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
Hexachloroethane	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
Hexachlorobutadiene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
Nitrobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
Pyridine	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
Cresol(s)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
2-Methylphenol (o-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
4-Methylphenol (p-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
Pentachlorophenol	<0.350		0.350		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
2,4,5-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:45	1.00
2,4,6-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 15:45	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-12(MIP-16a) 04-08

Date Collected: 05/04/12 09:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-26

Matrix: Soil
Percent Solids: 80.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*50*		*20 - 90*	*05/10/12 11:04*	*05/15/12 15:45*	*1.00*
2-Fluorobiphenyl	*47*		*25 - 95*	*05/10/12 11:04*	*05/15/12 15:45*	*1.00*
Terphenyl-d14	*61*		*35 - 110*	*05/10/12 11:04*	*05/15/12 15:45*	*1.00*
Phenol-d6	*23*		*10 - 45*	*05/10/12 11:04*	*05/15/12 15:45*	*1.00*
2-Fluorophenol	*33*		*10 - 60*	*05/10/12 11:04*	*05/15/12 15:45*	*1.00*
2,4,6-Tribromophenol	*54*		*30 - 105*	*05/10/12 11:04*	*05/15/12 15:45*	*1.00*

Method: SW 8270D - Semivolatile Organics by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Acenaphthylene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Anthracene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Benzidine	<59.5	RL1	59.5		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Benzo (a) anthracene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Benzo (b) fluoranthene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Benzo (k) fluoranthene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Benzo (a) pyrene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Benzo (g,h,i) perylene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Benzyl alcohol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Butyl benzyl phthalate	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Bis(2-chloroethyl)ether	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Bis(2-chloroethoxy)methane	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Bis(2-ethylhexyl)phthalate	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Bis(2-chloroisopropyl) ether	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
4-Bromophenyl phenyl ether	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Carbazole	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
4-Chloroaniline	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2-Chloronaphthalene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
4-Chlorophenyl phenyl ether	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Chrysene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Dibenzo (a,h) anthracene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Dibenzofuran	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Di-n-butyl phthalate	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
1,2-Dichlorobenzene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
1,3-Dichlorobenzene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
1,4-Dichlorobenzene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
3,3'-Dichlorobenzidine	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Diethyl phthalate	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Dimethyl phthalate	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2,4-Dinitrotoluene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2,6-Dinitrotoluene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Di-n-octyl phthalate	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Fluoranthene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Fluorene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Hexachlorobenzene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Hexachlorobutadiene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Hexachlorocyclopentadiene	<11.9	RL1	11.9		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Hexachloroethane	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Indeno (1,2,3-cd) pyrene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Isophorone	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2-Methylnaphthalene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Naphthalene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-12(MIP-16a) 04-08

Date Collected: 05/04/12 09:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-26

Matrix: Soil
Percent Solids: 80.9

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
3-Nitroaniline	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
4-Nitroaniline	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Nitrobenzene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
N-Nitrosodimethylamine	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
N-Nitrosodiphenylamine	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
N-Nitrosodi-n-propylamine	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Phenanthrene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Pyrene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Pyridine	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
1,2,4-Trichlorobenzene	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Benzoic acid	<11.9	RL1	11.9		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
4-Chloro-3-methylphenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2-Chlorophenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Cresol(s)	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2,4-Dichlorophenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2,4-Dimethylphenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2,4-Dinitrophenol	<11.9	RL1	11.9		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
4,6-Dinitro-2-methylphenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2-Methylphenol (o-Cresol)	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
4-Methylphenol (p-Cresol)	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2-Nitrophenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
4-Nitrophenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Pentachlorophenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
Phenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2,4,5-Trichlorophenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0
2,4,6-Trichlorophenol	<5.95	RL1	5.95		mg/kg dry	☼	05/08/12 10:17	05/10/12 20:25	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*61*	*RL1*	*15 - 90*	*05/08/12 10:17*	*05/10/12 20:25*	*10.0*
2-Fluorobiphenyl	*64*	*RL1*	*20 - 90*	*05/08/12 10:17*	*05/10/12 20:25*	*10.0*
Terphenyl-d14	*66*	*RL1*	*35 - 110*	*05/08/12 10:17*	*05/10/12 20:25*	*10.0*
Phenol-d6	*55*	*RL1*	*20 - 90*	*05/08/12 10:17*	*05/10/12 20:25*	*10.0*
2-Fluorophenol	*46*	*RL1*	*15 - 90*	*05/08/12 10:17*	*05/10/12 20:25*	*10.0*
2,4,6-Tribromophenol	*53*	*RL1*	*25 - 105*	*05/08/12 10:17*	*05/10/12 20:25*	*10.0*

Method: 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.050		0.10	0.050	mg/L		05/14/12 08:54	05/15/12 15:32	1
Silvex (2,4,5-TP)	<0.050		0.10	0.050	mg/L		05/14/12 08:54	05/15/12 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*76*		*30 - 129*	*05/14/12 08:54*	*05/15/12 15:32*	*1*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**17300**		180		mg/kg		05/09/12 10:42	05/15/12 10:59	15.0
Gasoline	**162**	**Q**	12.0		mg/kg		05/09/12 10:42	05/15/12 01:48	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*5900*	*ZX*	*60 - 145*	*05/09/12 10:42*	*05/15/12 01:48*	*1.00*

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-12(MIP-16a) 04-08

Date Collected: 05/04/12 09:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-26

Matrix: Soil
Percent Solids: 80.9

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	**5170**	**Q**	180		mg/kg		05/09/12 10:42	05/15/12 10:59	15.0
Motor Oil	**12000**		180		mg/kg		05/09/12 10:42	05/15/12 10:59	15.0

Method: SW 8081B - TCLP Pesticides by EPA Method 1311/8081A - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	<0.00300		0.00300		mg/L		05/09/12 10:48	05/16/12 19:13	1.00
Endrin	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:13	1.00
gamma-BHC (Lindane)	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:13	1.00
Heptachlor	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:13	1.00
Heptachlor epoxide	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:13	1.00
Methoxychlor	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:13	1.00
Toxaphene	<0.00300		0.00300		mg/L		05/09/12 10:48	05/16/12 19:13	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl	*72*		*45 - 130*	*05/09/12 10:48*	*05/16/12 19:13*	*1.00*
Tetrachloro-meta-xylene	*74*		*30 - 100*	*05/09/12 10:48*	*05/16/12 19:13*	*1.00*

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0618		0.0618		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:42	1.00
PCB-1221	<0.0618		0.0618		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:42	1.00
PCB-1232	<0.0618		0.0618		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:42	1.00
PCB-1242	<0.0618		0.0618		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:42	1.00
PCB-1248	<0.0618		0.0618		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:42	1.00
PCB-1254	<0.0618		0.0618		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:42	1.00
PCB-1260	<0.0618		0.0618		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:42	1.00
PCB-1268	<0.0618		0.0618		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:42	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl	*78*		*40 - 120*	*05/09/12 10:43*	*05/17/12 11:42*	*1.00*
Tetrachloro-meta-xylene	*103*		*10 - 105*	*05/09/12 10:43*	*05/17/12 11:42*	*1.00*

Method: SW 7470A - TCLP Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		05/10/12 16:00	05/11/12 11:42	1.00

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0247		0.0247		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:20	1.00

Method: SW 6010C - TCLP Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.300		0.300		mg/L		05/09/12 13:10	05/10/12 20:48	1.00
Barium	**2.76**		0.100		mg/L		05/09/12 13:10	05/10/12 20:48	1.00
Cadmium	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:48	1.00
Chromium	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:48	1.00
Lead	<0.100		0.100		mg/L		05/09/12 13:10	05/10/12 20:48	1.00
Selenium	<0.150		0.150		mg/L		05/09/12 13:10	05/10/12 20:48	1.00
Silver	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:48	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<4.95		4.95		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:42	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-12(MIP-16a) 04-08

Date Collected: 05/04/12 09:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-26

Matrix: Soil
Percent Solids: 80.9

Method: SW 6010C - Total Metals by SW 846 Series Methods (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	152		0.618		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:42	1.00
Cadmium	<1.24		1.24		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:42	1.00
Chromium	18.1		1.24		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:42	1.00
Lead	11.0		6.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:42	1.00
Selenium	<9.27		9.27		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:42	1.00
Silver	<1.24		1.24		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:42	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	50		27	10	mg/Kg	☼	05/10/12 17:20	05/11/12 10:19	1
HEM (Oil & Grease)	20000	B	610	120	mg/Kg	☼	05/17/12 07:00	05/17/12 13:02	1
Percent Moisture	19		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	81		0.10	0.10	%			05/15/12 11:20	1

Method: ASTM D92 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>212°F				°F		05/15/12 15:15	05/15/12 15:17	1.00

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	80.9		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Method: SW 9012A Mod - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide	<1.24		1.24		mg/kg dry	☼	05/14/12 19:30	05/14/12 21:49	1.00

Method: SW 9045D - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.40	H3	0.100		pH Units		05/10/12 15:45	05/10/12 15:45	1.00

Method: SW 1311 - TCLP Extraction by EPA 1311

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ZHE Temperature Minimum	20.0	T6			°C		05/09/12 09:45	05/10/12 09:56	1.00
ZHE Temperature Maximum	25.2	T6			°C		05/09/12 09:45	05/10/12 09:56	1.00

Method: SW 1311 - TCLP Extraction by EPA 1311 - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TCLP Extraction Temp. Minimum	21.1				°C		05/07/12 16:00	05/08/12 09:59	1.00
TCLP Extraction Temp. Maximum	23.3				°C		05/07/12 16:00	05/08/12 09:59	1.00

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Duplicate-3
Date Collected: 05/04/12 00:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-27
Matrix: Soil
Percent Solids: 79.3

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5370		5370		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Benzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Bromobenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Bromochloromethane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Bromodichloromethane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Bromoform	<1070		1070		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Bromomethane	<2150		2150		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
2-Butanone (MEK)	<5370		5370		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
n-Butylbenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
sec-Butylbenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
tert-Butylbenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Carbon disulfide	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Carbon Tetrachloride	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Chlorobenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Chlorodibromomethane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Chloroethane	<2150		2150		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Chloroform	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Chloromethane	<2150		2150		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
2-Chlorotoluene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
4-Chlorotoluene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,2-Dibromo-3-chloropropane	<5370		5370		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,2-Dibromoethane (EDB)	<5370		5370		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Dibromomethane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,2-Dichlorobenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,3-Dichlorobenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,4-Dichlorobenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Dichlorodifluoromethane	<1610		1610		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,1-Dichloroethane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,2-Dichloroethane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,1-Dichloroethene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
cis-1,2-Dichloroethene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
trans-1,2-Dichloroethene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,2-Dichloropropane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,3-Dichloropropane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
2,2-Dichloropropane	<2150		2150		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,1-Dichloropropene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
cis-1,3-Dichloropropene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
trans-1,3-Dichloropropene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Ethylbenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Hexachlorobutadiene	<2690		2690		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Hexane	<2690		2690		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Isopropylbenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
p-Isopropyltoluene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Methylene Chloride	<5370		5370		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Methyl tert-Butyl Ether	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Naphthalene	<2690		2690		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
n-Propylbenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Styrene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,1,1,2-Tetrachloroethane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,1,2,2-Tetrachloroethane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Tetrachloroethene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100

Client Sample ID: Duplicate-3

Date Collected: 05/04/12 00:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-27

Matrix: Soil
Percent Solids: 79.3

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,2,3-Trichlorobenzene	<2690		2690		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,2,4-Trichlorobenzene	<2690		2690		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,1,1-Trichloroethane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,1,2-Trichloroethane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Trichloroethene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Trichlorofluoromethane	<2150		2150		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,2,3-Trichloropropane	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,2,4-Trimethylbenzene	**904**		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
1,3,5-Trimethylbenzene	<537		537		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Vinyl chloride	<1610		1610		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100
Xylenes, total	<1610		1610		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:12	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*75 - 125*	*05/13/12 00:00*	*05/13/12 00:12*	*100*
Toluene-d8	*101*		*80 - 120*	*05/13/12 00:00*	*05/13/12 00:12*	*100*
4-Bromofluorobenzene	*98*		*80 - 120*	*05/13/12 00:00*	*05/13/12 00:12*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**11400**		119		mg/kg		05/09/12 10:42	05/15/12 14:56	10.0
Gasoline	**103**	**Q**	11.9		mg/kg		05/09/12 10:42	05/15/12 02:30	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*6130*	*ZX*	*60 - 145*	*05/09/12 10:42*	*05/15/12 02:30*	*1.00*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	**3370**	**Q**	119		mg/kg		05/09/12 10:42	05/15/12 14:56	10.0
Motor Oil	**7890**		119		mg/kg		05/09/12 10:42	05/15/12 14:56	10.0

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0630		0.0630		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:53	1.00
PCB-1221	<0.0630		0.0630		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:53	1.00
PCB-1232	<0.0630		0.0630		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:53	1.00
PCB-1242	<0.0630		0.0630		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:53	1.00
PCB-1248	<0.0630		0.0630		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:53	1.00
PCB-1254	<0.0630		0.0630		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:53	1.00
PCB-1260	<0.0630		0.0630		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:53	1.00
PCB-1268	<0.0630		0.0630		mg/kg dry	☼	05/09/12 10:43	05/17/12 11:53	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl	*77*		*40 - 120*	*05/09/12 10:43*	*05/17/12 11:53*	*1.00*
Tetrachloro-meta-xylene	*89*		*10 - 105*	*05/09/12 10:43*	*05/17/12 11:53*	*1.00*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0226		0.0226		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:21	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<4.32		4.32		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:52	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Duplicate-3

Lab Sample ID: CVE0494-27

Date Collected: 05/04/12 00:00
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 79.3

Method: SW 6010C - Total Metals by SW 846 Series Methods (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**161**		0.540		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:52	1.00
Cadmium	<1.08		1.08		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:52	1.00
Chromium	**18.6**		1.08		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:52	1.00
Lead	**8.64**		5.40		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:52	1.00
Selenium	<8.10		8.10		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:52	1.00
Silver	**1.25**		1.08		mg/kg dry	☼	05/08/12 10:46	05/14/12 14:52	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**25000**	**B**	620	120	mg/Kg	☼	05/17/12 07:00	05/17/12 13:10	1
Percent Moisture	**21**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**79**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**79.3**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-12(MIP-16a) 10-12

Lab Sample ID: CVE0494-28

Date Collected: 05/04/12 10:05
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 84.8

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4730		4730		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Benzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Bromobenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Bromochloromethane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Bromodichloromethane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Bromoform	<945		945		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Bromomethane	<1890		1890		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
2-Butanone (MEK)	<4730		4730		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
n-Butylbenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
sec-Butylbenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
tert-Butylbenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Carbon disulfide	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Carbon Tetrachloride	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Chlorobenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Chlorodibromomethane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Chloroethane	<1890		1890		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Chloroform	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Chloromethane	<1890		1890		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
2-Chlorotoluene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
4-Chlorotoluene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,2-Dibromo-3-chloropropane	<4730		4730		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,2-Dibromoethane (EDB)	<4730		4730		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Dibromomethane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,2-Dichlorobenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,3-Dichlorobenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,4-Dichlorobenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Dichlorodifluoromethane	<1420		1420		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,1-Dichloroethane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,2-Dichloroethane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,1-Dichloroethene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
cis-1,2-Dichloroethene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
trans-1,2-Dichloroethene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,2-Dichloropropane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,3-Dichloropropane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
2,2-Dichloropropane	<1890		1890		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,1-Dichloropropene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
cis-1,3-Dichloropropene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
trans-1,3-Dichloropropene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Ethylbenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Hexachlorobutadiene	<2360		2360		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Hexane	<2360		2360		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Isopropylbenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
p-Isopropyltoluene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Methylene Chloride	<4730		4730		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Methyl tert-Butyl Ether	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Naphthalene	<2360		2360		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
n-Propylbenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Styrene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,1,1,2-Tetrachloroethane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,1,2,2-Tetrachloroethane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Tetrachloroethene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100

Client Sample ID: SB-12(MIP-16a) 10-12

Lab Sample ID: CVE0494-28

Date Collected: 05/04/12 10:05
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 84.8

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,2,3-Trichlorobenzene	<2360		2360		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,2,4-Trichlorobenzene	<2360		2360		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,1,1-Trichloroethane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,1,2-Trichloroethane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Trichloroethene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Trichlorofluoromethane	<1890		1890		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,2,3-Trichloropropane	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,2,4-Trimethylbenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
1,3,5-Trimethylbenzene	<473		473		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Vinyl chloride	<1420		1420		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100
Xylenes, total	<1420		1420		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:34	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*75 - 125*	*05/13/12 00:00*	*05/13/12 00:34*	*100*
Toluene-d8	*99*		*80 - 120*	*05/13/12 00:00*	*05/13/12 00:34*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/13/12 00:00*	*05/13/12 00:34*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**80.0**		11.8		mg/kg		05/09/12 10:42	05/14/12 17:32	1.00
Diesel	**31.1**	**Q**	11.8		mg/kg		05/09/12 10:42	05/14/12 17:32	1.00
Gasoline	<11.8		11.8		mg/kg		05/09/12 10:42	05/14/12 17:32	1.00
Motor Oil	**48.9**	**Q**	11.8		mg/kg		05/09/12 10:42	05/14/12 17:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*144*		*60 - 145*	*05/09/12 10:42*	*05/14/12 17:32*	*1.00*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0236		0.0236		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:23	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<4.71		4.71		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:47	1.00
Barium	**69.5**		0.589		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:47	1.00
Cadmium	<1.18		1.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:47	1.00
Chromium	**14.3**		1.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:47	1.00
Lead	**7.26**		5.89		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:47	1.00
Selenium	<8.84		8.84		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:47	1.00
Silver	<1.18		1.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:47	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**140**	**J B**	590	110	mg/Kg	☼	05/17/12 07:00	05/17/12 13:19	1
Percent Moisture	**15**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**85**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**84.8**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 22-24

Date Collected: 05/04/12 10:55
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-29

Matrix: Soil
Percent Solids: 85.8

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4120		4120		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Benzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Bromobenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Bromochloromethane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Bromodichloromethane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Bromoform	<824		824		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Bromomethane	<1650		1650		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
2-Butanone (MEK)	<4120		4120		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
n-Butylbenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
sec-Butylbenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
tert-Butylbenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Carbon disulfide	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Carbon Tetrachloride	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Chlorobenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Chlorodibromomethane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Chloroethane	<1650		1650		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Chloroform	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Chloromethane	<1650		1650		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
2-Chlorotoluene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
4-Chlorotoluene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,2-Dibromo-3-chloropropane	<4120		4120		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,2-Dibromoethane (EDB)	<4120		4120		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Dibromomethane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,2-Dichlorobenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,3-Dichlorobenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,4-Dichlorobenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Dichlorodifluoromethane	<1240		1240		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,1-Dichloroethane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,2-Dichloroethane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,1-Dichloroethene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
cis-1,2-Dichloroethene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
trans-1,2-Dichloroethene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,2-Dichloropropane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,3-Dichloropropane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
2,2-Dichloropropane	<1650		1650		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,1-Dichloropropene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
cis-1,3-Dichloropropene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
trans-1,3-Dichloropropene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Ethylbenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Hexachlorobutadiene	<2060		2060		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Hexane	<2060		2060		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Isopropylbenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
p-Isopropyltoluene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Methylene Chloride	<4120		4120		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Methyl tert-Butyl Ether	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Naphthalene	<2060		2060		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
n-Propylbenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Styrene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,1,1,2-Tetrachloroethane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,1,2,2-Tetrachloroethane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Tetrachloroethene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 22-24

Date Collected: 05/04/12 10:55
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-29

Matrix: Soil
Percent Solids: 85.8

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,2,3-Trichlorobenzene	<2060		2060		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,2,4-Trichlorobenzene	<2060		2060		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,1,1-Trichloroethane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,1,2-Trichloroethane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Trichloroethene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Trichlorofluoromethane	<1650		1650		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,2,3-Trichloropropane	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,2,4-Trimethylbenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
1,3,5-Trimethylbenzene	<412		412		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Vinyl chloride	<1240		1240		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100
Xylenes, total	<1240		1240		ug/kg dry	☼	05/13/12 00:00	05/13/12 00:58	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*75 - 125*	*05/13/12 00:00*	*05/13/12 00:58*	*100*
Toluene-d8	*100*		*80 - 120*	*05/13/12 00:00*	*05/13/12 00:58*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/13/12 00:00*	*05/13/12 00:58*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<12.0		12.0		mg/kg		05/09/12 10:42	05/14/12 18:13	1.00
Diesel	<12.0		12.0		mg/kg		05/09/12 10:42	05/14/12 18:13	1.00
Gasoline	<12.0		12.0		mg/kg		05/09/12 10:42	05/14/12 18:13	1.00
Motor Oil	<12.0		12.0		mg/kg		05/09/12 10:42	05/14/12 18:13	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*94*		*60 - 145*	*05/09/12 10:42*	*05/14/12 18:13*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**170**	**J B**	560	110	mg/Kg	☼	05/17/12 07:00	05/17/12 13:27	1
Percent Moisture	**14**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**86**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**85.8**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-10(MIP-12) 05-07

Date Collected: 05/04/12 11:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-30

Matrix: Soil
Percent Solids: 84.7

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4700		4700		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Benzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Bromobenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Bromochloromethane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Bromodichloromethane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Bromoform	<940		940		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Bromomethane	<1880		1880		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
2-Butanone (MEK)	<4700		4700		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
n-Butylbenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
sec-Butylbenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
tert-Butylbenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Carbon disulfide	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Carbon Tetrachloride	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Chlorobenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Chlorodibromomethane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Chloroethane	<1880		1880		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Chloroform	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Chloromethane	<1880		1880		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
2-Chlorotoluene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
4-Chlorotoluene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,2-Dibromo-3-chloropropane	<4700		4700		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,2-Dibromoethane (EDB)	<4700		4700		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Dibromomethane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,2-Dichlorobenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,3-Dichlorobenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,4-Dichlorobenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Dichlorodifluoromethane	<1410		1410		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,1-Dichloroethane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,2-Dichloroethane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,1-Dichloroethene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
cis-1,2-Dichloroethene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
trans-1,2-Dichloroethene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,2-Dichloropropane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,3-Dichloropropane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
2,2-Dichloropropane	<1880		1880		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,1-Dichloropropene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
cis-1,3-Dichloropropene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
trans-1,3-Dichloropropene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Ethylbenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Hexachlorobutadiene	<2350		2350		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Hexane	<2350		2350		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Isopropylbenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
p-Isopropyltoluene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Methylene Chloride	<4700		4700		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Methyl tert-Butyl Ether	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Naphthalene	<2350		2350		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
n-Propylbenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Styrene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,1,1,2-Tetrachloroethane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,1,2,2-Tetrachloroethane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Tetrachloroethene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-10(MIP-12) 05-07

Date Collected: 05/04/12 11:40
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-30

Matrix: Soil
Percent Solids: 84.7

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,2,3-Trichlorobenzene	<2350		2350		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,2,4-Trichlorobenzene	<2350		2350		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,1,1-Trichloroethane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,1,2-Trichloroethane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Trichloroethene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Trichlorofluoromethane	<1880		1880		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,2,3-Trichloropropane	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,2,4-Trimethylbenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
1,3,5-Trimethylbenzene	<470		470		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Vinyl chloride	<1410		1410		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100
Xylenes, total	<1410		1410		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:21	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/13/12 00:00*	*05/13/12 01:21*	*100*
Toluene-d8	*101*		*80 - 120*	*05/13/12 00:00*	*05/13/12 01:21*	*100*
4-Bromofluorobenzene	*98*		*80 - 120*	*05/13/12 00:00*	*05/13/12 01:21*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<11.9		11.9		mg/kg		05/09/12 10:42	05/14/12 18:54	1.00
Diesel	<11.9		11.9		mg/kg		05/09/12 10:42	05/14/12 18:54	1.00
Gasoline	<11.9		11.9		mg/kg		05/09/12 10:42	05/14/12 18:54	1.00
Motor Oil	<11.9		11.9		mg/kg		05/09/12 10:42	05/14/12 18:54	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*100*		*60 - 145*	*05/09/12 10:42*	*05/14/12 18:54*	*1.00*

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0236		0.0236		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:25	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<4.72		4.72		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:49	1.00
Barium	**77.5**		0.591		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:49	1.00
Cadmium	<1.18		1.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:49	1.00
Chromium	**9.17**		1.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:49	1.00
Lead	<5.91		5.91		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:49	1.00
Selenium	<8.86		8.86		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:49	1.00
Silver	<1.18		1.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:49	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**130**	**J B**	580	110	mg/Kg	☼	05/17/12 07:00	05/17/12 13:36	1
Percent Moisture	**15**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**85**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**84.7**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-10(MIP-12) 16-18

Date Collected: 05/04/12 12:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-31

Matrix: Soil
Percent Solids: 87.3

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4740		4740		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Benzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Bromobenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Bromochloromethane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Bromodichloromethane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Bromoform	<947		947		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Bromomethane	<1890		1890		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
2-Butanone (MEK)	<4740		4740		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
n-Butylbenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
sec-Butylbenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
tert-Butylbenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Carbon disulfide	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Carbon Tetrachloride	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Chlorobenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Chlorodibromomethane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Chloroethane	<1890		1890		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Chloroform	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Chloromethane	<1890		1890		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
2-Chlorotoluene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
4-Chlorotoluene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,2-Dibromo-3-chloropropane	<4740		4740		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,2-Dibromoethane (EDB)	<4740		4740		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Dibromomethane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,2-Dichlorobenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,3-Dichlorobenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,4-Dichlorobenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Dichlorodifluoromethane	<1420		1420		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,1-Dichloroethane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,2-Dichloroethane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,1-Dichloroethene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
cis-1,2-Dichloroethene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
trans-1,2-Dichloroethene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,2-Dichloropropane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,3-Dichloropropane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
2,2-Dichloropropane	<1890		1890		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,1-Dichloropropene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
cis-1,3-Dichloropropene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
trans-1,3-Dichloropropene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Ethylbenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Hexachlorobutadiene	<2370		2370		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Hexane	<2370		2370		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Isopropylbenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
p-Isopropyltoluene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Methylene Chloride	<4740		4740		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Methyl tert-Butyl Ether	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Naphthalene	<2370		2370		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
n-Propylbenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Styrene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,1,1,2-Tetrachloroethane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,1,2,2-Tetrachloroethane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Tetrachloroethene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-10(MIP-12) 16-18

Lab Sample ID: CVE0494-31

Date Collected: 05/04/12 12:00
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 87.3

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,2,3-Trichlorobenzene	<2370		2370		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,2,4-Trichlorobenzene	<2370		2370		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,1,1-Trichloroethane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,1,2-Trichloroethane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Trichloroethene	**10200**		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Trichlorofluoromethane	<1890		1890		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,2,3-Trichloropropane	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,2,4-Trimethylbenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
1,3,5-Trimethylbenzene	<474		474		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Vinyl chloride	<1420		1420		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100
Xylenes, total	<1420		1420		ug/kg dry	☼	05/13/12 00:00	05/13/12 01:44	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99*		*75 - 125*	*05/13/12 00:00*	*05/13/12 01:44*	*100*
Toluene-d8	*99*		*80 - 120*	*05/13/12 00:00*	*05/13/12 01:44*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/13/12 00:00*	*05/13/12 01:44*	*100*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.3**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-06(MIP-27) 06-08

Date Collected: 05/04/12 12:25
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-32

Matrix: Soil
Percent Solids: 82.4

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<6070		6070		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Benzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Bromobenzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Bromochloromethane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Bromodichloromethane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Bromoform	<2430		2430		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Bromomethane	<2430		2430		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
2-Butanone (MEK)	<6070		6070		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
n-Butylbenzene	**4150**		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
sec-Butylbenzene	**683**		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
tert-Butylbenzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Carbon disulfide	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Carbon Tetrachloride	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Chlorobenzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Chlorodibromomethane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Chloroethane	<2430		2430		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Chloroform	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Chloromethane	<2430		2430		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
2-Chlorotoluene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
4-Chlorotoluene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,2-Dibromo-3-chloropropane	<6070		6070		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,2-Dibromoethane (EDB)	<6070		6070		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Dibromomethane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,2-Dichlorobenzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,3-Dichlorobenzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,4-Dichlorobenzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Dichlorodifluoromethane	<1820		1820		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,1-Dichloroethane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,2-Dichloroethane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,1-Dichloroethene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
cis-1,2-Dichloroethene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
trans-1,2-Dichloroethene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,2-Dichloropropane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,3-Dichloropropane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
2,2-Dichloropropane	<2430		2430		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,1-Dichloropropene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
cis-1,3-Dichloropropene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
trans-1,3-Dichloropropene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Ethylbenzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Hexachlorobutadiene	<3030		3030		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Hexane	<3030		3030		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Isopropylbenzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
p-Isopropyltoluene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Methylene Chloride	<6070		6070		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Methyl tert-Butyl Ether	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Naphthalene	<3030		3030		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
n-Propylbenzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Styrene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,1,1,2-Tetrachloroethane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,1,2,2-Tetrachloroethane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Tetrachloroethene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-06(MIP-27) 06-08

Date Collected: 05/04/12 12:25
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-32

Matrix: Soil
Percent Solids: 82.4

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,2,3-Trichlorobenzene	<3030		3030		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,2,4-Trichlorobenzene	<3030		3030		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,1,1-Trichloroethane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,1,2-Trichloroethane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Trichloroethene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Trichlorofluoromethane	<2430		2430		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,2,3-Trichloropropane	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,2,4-Trimethylbenzene	**691**		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
1,3,5-Trimethylbenzene	<607		607		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Vinyl chloride	<1820		1820		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100
Xylenes, total	<1820		1820		ug/kg dry	☼	05/16/12 00:00	05/16/12 13:33	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*97*		*75 - 125*	*05/16/12 00:00*	*05/16/12 13:33*	*100*
Toluene-d8	*100*		*80 - 120*	*05/16/12 00:00*	*05/16/12 13:33*	*100*
4-Bromofluorobenzene	*100*		*80 - 120*	*05/16/12 00:00*	*05/16/12 13:33*	*100*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**82.4**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Duplicate-1
Date Collected: 05/04/12 00:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-33
Matrix: Soil
Percent Solids: 82.2

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4510		4510		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Benzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Bromobenzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Bromochloromethane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Bromodichloromethane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Bromoform	<1810		1810		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Bromomethane	<1810		1810		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
2-Butanone (MEK)	<4510		4510		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
n-Butylbenzene	**5680**		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
sec-Butylbenzene	**881**		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
tert-Butylbenzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Carbon disulfide	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Carbon Tetrachloride	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Chlorobenzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Chlorodibromomethane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Chloroethane	<1810		1810		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Chloroform	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Chloromethane	<1810		1810		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
2-Chlorotoluene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
4-Chlorotoluene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,2-Dibromo-3-chloropropane	<4510		4510		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,2-Dibromoethane (EDB)	<4510		4510		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Dibromomethane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,2-Dichlorobenzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,3-Dichlorobenzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,4-Dichlorobenzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Dichlorodifluoromethane	<1350		1350		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,1-Dichloroethane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,2-Dichloroethane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,1-Dichloroethene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
cis-1,2-Dichloroethene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
trans-1,2-Dichloroethene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,2-Dichloropropane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,3-Dichloropropane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
2,2-Dichloropropane	<1810		1810		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,1-Dichloropropene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
cis-1,3-Dichloropropene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
trans-1,3-Dichloropropene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Ethylbenzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Hexachlorobutadiene	<2260		2260		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Hexane	<2260		2260		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Isopropylbenzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
p-Isopropyltoluene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Methylene Chloride	<4510		4510		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Methyl tert-Butyl Ether	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Naphthalene	<2260		2260		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
n-Propylbenzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Styrene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,1,1,2-Tetrachloroethane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,1,2,2-Tetrachloroethane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Tetrachloroethene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Duplicate-1

Date Collected: 05/04/12 00:00
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-33

Matrix: Soil
Percent Solids: 82.2

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,2,3-Trichlorobenzene	<2260		2260		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,2,4-Trichlorobenzene	<2260		2260		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,1,1-Trichloroethane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,1,2-Trichloroethane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Trichloroethene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Trichlorofluoromethane	<1810		1810		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,2,3-Trichloropropane	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,2,4-Trimethylbenzene	**886**		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
1,3,5-Trimethylbenzene	<451		451		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Vinyl chloride	<1350		1350		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100
Xylenes, total	<1350		1350		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:04	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99*		*75 - 125*	*05/16/12 00:00*	*05/16/12 14:04*	*100*
Toluene-d8	*100*		*80 - 120*	*05/16/12 00:00*	*05/16/12 14:04*	*100*
4-Bromofluorobenzene	*101*		*80 - 120*	*05/16/12 00:00*	*05/16/12 14:04*	*100*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**82.2**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-06(MIP-27) 20-22

Date Collected: 05/04/12 12:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-34

Matrix: Soil
Percent Solids: 87.5

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4400		4400		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Benzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Bromobenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Bromochloromethane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Bromodichloromethane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Bromoform	<1760		1760		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Bromomethane	<1760		1760		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
2-Butanone (MEK)	<4400		4400		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
n-Butylbenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
sec-Butylbenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
tert-Butylbenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Carbon disulfide	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Carbon Tetrachloride	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Chlorobenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Chlorodibromomethane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Chloroethane	<1760		1760		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Chloroform	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Chloromethane	<1760		1760		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
2-Chlorotoluene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
4-Chlorotoluene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,2-Dibromo-3-chloropropane	<4400		4400		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,2-Dibromoethane (EDB)	<4400		4400		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Dibromomethane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,2-Dichlorobenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,3-Dichlorobenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,4-Dichlorobenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Dichlorodifluoromethane	<1320		1320		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,1-Dichloroethane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,2-Dichloroethane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,1-Dichloroethene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
cis-1,2-Dichloroethene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
trans-1,2-Dichloroethene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,2-Dichloropropane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,3-Dichloropropane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
2,2-Dichloropropane	<1760		1760		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,1-Dichloropropene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
cis-1,3-Dichloropropene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
trans-1,3-Dichloropropene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Ethylbenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Hexachlorobutadiene	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Hexane	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Isopropylbenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
p-Isopropyltoluene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Methylene Chloride	<4400		4400		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Methyl tert-Butyl Ether	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Naphthalene	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
n-Propylbenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Styrene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,1,1,2-Tetrachloroethane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,1,2,2-Tetrachloroethane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Tetrachloroethene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-06(MIP-27) 20-22

Date Collected: 05/04/12 12:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-34

Matrix: Soil
Percent Solids: 87.5

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,2,3-Trichlorobenzene	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,2,4-Trichlorobenzene	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,1,1-Trichloroethane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,1,2-Trichloroethane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Trichloroethene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Trichlorofluoromethane	<1760		1760		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,2,3-Trichloropropane	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,2,4-Trimethylbenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
1,3,5-Trimethylbenzene	<440		440		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Vinyl chloride	<1320		1320		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100
Xylenes, total	<1320		1320		ug/kg dry	☼	05/16/12 00:00	05/16/12 14:34	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*95*		*75 - 125*	*05/16/12 00:00*	*05/16/12 14:34*	*100*
Toluene-d8	*101*		*80 - 120*	*05/16/12 00:00*	*05/16/12 14:34*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/16/12 00:00*	*05/16/12 14:34*	*100*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**87.5**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 06-08

Date Collected: 05/04/12 13:20
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-35

Matrix: Soil
Percent Solids: 79.8

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5370		5370		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Benzene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Bromobenzene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Bromochloromethane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Bromodichloromethane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Bromoform	<2150		2150		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Bromomethane	<2150		2150		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
2-Butanone (MEK)	<5370		5370		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
n-Butylbenzene	**3180**		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
sec-Butylbenzene	**15400**		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
tert-Butylbenzene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Carbon disulfide	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Carbon Tetrachloride	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Chlorobenzene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Chlorodibromomethane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Chloroethane	<2150		2150		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Chloroform	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Chloromethane	<2150		2150		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
2-Chlorotoluene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
4-Chlorotoluene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,2-Dibromo-3-chloropropane	<5370		5370		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,2-Dibromoethane (EDB)	<5370		5370		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Dibromomethane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,2-Dichlorobenzene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,3-Dichlorobenzene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,4-Dichlorobenzene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Dichlorodifluoromethane	<1610		1610		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,1-Dichloroethane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,2-Dichloroethane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,1-Dichloroethene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
cis-1,2-Dichloroethene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
trans-1,2-Dichloroethene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,2-Dichloropropane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,3-Dichloropropane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
2,2-Dichloropropane	<2150		2150		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,1-Dichloropropene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
cis-1,3-Dichloropropene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
trans-1,3-Dichloropropene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Ethylbenzene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Hexachlorobutadiene	<2690		2690		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Hexane	<2690		2690		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Isopropylbenzene	**941**		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
p-Isopropyltoluene	**1610**		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Methylene Chloride	<5370		5370		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Methyl tert-Butyl Ether	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Naphthalene	<2690		2690		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
n-Propylbenzene	**2660**		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Styrene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,1,1,2-Tetrachloroethane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,1,2,2-Tetrachloroethane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Tetrachloroethene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 06-08

Date Collected: 05/04/12 13:20
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-35

Matrix: Soil
Percent Solids: 79.8

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,2,3-Trichlorobenzene	<2690		2690		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,2,4-Trichlorobenzene	<2690		2690		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,1,1-Trichloroethane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,1,2-Trichloroethane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Trichloroethene	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Trichlorofluoromethane	<2150		2150		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,2,3-Trichloropropane	<537		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,2,4-Trimethylbenzene	**15800**		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
1,3,5-Trimethylbenzene	**5540**		537		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Vinyl chloride	<1610		1610		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100
Xylenes, total	**2560**		1610		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:04	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*95*		*75 - 125*	*05/16/12 00:00*	*05/16/12 15:04*	*100*
Toluene-d8	*101*		*80 - 120*	*05/16/12 00:00*	*05/16/12 15:04*	*100*
4-Bromofluorobenzene	*104*		*80 - 120*	*05/16/12 00:00*	*05/16/12 15:04*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**9830**		119		mg/kg		05/09/12 10:42	05/15/12 17:14	10.0
Gasoline	**641**	**Q**	11.9		mg/kg		05/09/12 10:42	05/14/12 19:35	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*3800*	*ZX*	*60 - 145*	*05/09/12 10:42*	*05/14/12 19:35*	*1.00*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	**2630**	**Q**	119		mg/kg		05/09/12 10:42	05/15/12 17:14	10.0
Motor Oil	**6560**		119		mg/kg		05/09/12 10:42	05/15/12 17:14	10.0

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0351**		0.0228		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:27	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<5.01		5.01		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:51	1.00
Barium	**122**		0.627		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:51	1.00
Cadmium	<1.25		1.25		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:51	1.00
Chromium	**23.3**		1.25		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:51	1.00
Lead	**11.7**		6.27		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:51	1.00
Selenium	<9.40		9.40		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:51	1.00
Silver	**2.54**		1.25		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:51	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**8600**	**B**	620	120	mg/Kg	☼	05/17/12 07:00	05/17/12 13:44	1
Percent Moisture	**20**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**80**		0.10	0.10	%			05/15/12 11:20	1

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 06-08
Date Collected: 05/04/12 13:20
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-35
Matrix: Soil
Percent Solids: 79.8

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	79.8		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 10-12

Date Collected: 05/04/12 13:30
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-36

Matrix: Soil
Percent Solids: 80.9

Method: SW 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0100		0.0100		mg/L		05/10/12 00:00	05/10/12 21:32	20.0
2-Butanone (MEK)	<0.200	L	0.200		mg/L		05/10/12 00:00	05/10/12 21:32	20.0
Carbon Tetrachloride	<0.0400		0.0400		mg/L		05/10/12 00:00	05/10/12 21:32	20.0
Chlorobenzene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:32	20.0
Chloroform	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:32	20.0
1,2-Dichloroethane	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:32	20.0
1,1-Dichloroethene	<0.0400		0.0400		mg/L		05/10/12 00:00	05/10/12 21:32	20.0
Tetrachloroethene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:32	20.0
Trichloroethene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:32	20.0
Vinyl chloride	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 21:32	20.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*112*		*75 - 125*	*05/10/12 00:00*	*05/10/12 21:32*	*20.0*
Toluene-d8	*101*		*80 - 120*	*05/10/12 00:00*	*05/10/12 21:32*	*20.0*
4-Bromofluorobenzene	*94*		*80 - 120*	*05/10/12 00:00*	*05/10/12 21:32*	*20.0*

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5490		5490		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Benzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Bromobenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Bromochloromethane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Bromodichloromethane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Bromoform	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Bromomethane	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
2-Butanone (MEK)	<5490		5490		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
n-Butylbenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
sec-Butylbenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
tert-Butylbenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Carbon disulfide	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Carbon Tetrachloride	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Chlorobenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Chlorodibromomethane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Chloroethane	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Chloroform	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Chloromethane	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
2-Chlorotoluene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
4-Chlorotoluene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,2-Dibromo-3-chloropropane	<5490		5490		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,2-Dibromoethane (EDB)	<5490		5490		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Dibromomethane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,2-Dichlorobenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,3-Dichlorobenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,4-Dichlorobenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Dichlorodifluoromethane	<1650		1650		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,1-Dichloroethane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,2-Dichloroethane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,1-Dichloroethene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
cis-1,2-Dichloroethene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
trans-1,2-Dichloroethene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,2-Dichloropropane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 10-12

Date Collected: 05/04/12 13:30
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-36

Matrix: Soil
Percent Solids: 80.9

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
2,2-Dichloropropane	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,1-Dichloropropene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
cis-1,3-Dichloropropene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
trans-1,3-Dichloropropene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Ethylbenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Hexachlorobutadiene	<2750		2750		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Hexane	<2750		2750		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Isopropylbenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
p-Isopropyltoluene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Methylene Chloride	<5490		5490		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Methyl tert-Butyl Ether	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Naphthalene	<2750		2750		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
n-Propylbenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Styrene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,1,1,2-Tetrachloroethane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,1,2,2-Tetrachloroethane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Tetrachloroethene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Toluene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,2,3-Trichlorobenzene	<2750		2750		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,2,4-Trichlorobenzene	<2750		2750		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,1,1-Trichloroethane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,1,2-Trichloroethane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Trichloroethene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Trichlorofluoromethane	<2200		2200		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,2,3-Trichloropropane	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,2,4-Trimethylbenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
1,3,5-Trimethylbenzene	<549		549		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Vinyl chloride	<1650		1650		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100
Xylenes, total	<1650		1650		ug/kg dry	☼	05/16/12 00:00	05/16/12 15:35	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*95*		*75 - 125*	*05/16/12 00:00*	*05/16/12 15:35*	*100*
Toluene-d8	*99*		*80 - 120*	*05/16/12 00:00*	*05/16/12 15:35*	*100*
4-Bromofluorobenzene	*96*		*80 - 120*	*05/16/12 00:00*	*05/16/12 15:35*	*100*

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
2,4-Dinitrotoluene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
Hexachlorobenzene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
Hexachloroethane	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
Hexachlorobutadiene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
Nitrobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
Pyridine	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
Cresol(s)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
2-Methylphenol (o-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
4-Methylphenol (p-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
Pentachlorophenol	<0.350		0.350		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
2,4,5-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:16	1.00
2,4,6-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/15/12 16:16	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 10-12

Date Collected: 05/04/12 13:30
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-36

Matrix: Soil
Percent Solids: 80.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*48*		*20 - 90*	*05/10/12 11:04*	*05/15/12 16:16*	*1.00*
2-Fluorobiphenyl	*46*		*25 - 95*	*05/10/12 11:04*	*05/15/12 16:16*	*1.00*
Terphenyl-d14	*58*		*35 - 110*	*05/10/12 11:04*	*05/15/12 16:16*	*1.00*
Phenol-d6	*23*		*10 - 45*	*05/10/12 11:04*	*05/15/12 16:16*	*1.00*
2-Fluorophenol	*31*		*10 - 60*	*05/10/12 11:04*	*05/15/12 16:16*	*1.00*
2,4,6-Tribromophenol	*54*		*30 - 105*	*05/10/12 11:04*	*05/15/12 16:16*	*1.00*

Method: SW 8270D - Semivolatile Organics by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Acenaphthylene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Anthracene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Benzidine	<9.76		9.76		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Benzo (a) anthracene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Benzo (b) fluoranthene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Benzo (k) fluoranthene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Benzo (a) pyrene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Benzo (g,h,i) perylene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Benzyl alcohol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Butyl benzyl phthalate	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Bis(2-chloroethyl)ether	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Bis(2-chloroethoxy)methane	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Bis(2-ethylhexyl)phthalate	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Bis(2-chloroisopropyl) ether	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
4-Bromophenyl phenyl ether	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Carbazole	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
4-Chloroaniline	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2-Chloronaphthalene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
4-Chlorophenyl phenyl ether	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Chrysene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Dibenzo (a,h) anthracene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Dibenzofuran	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Di-n-butyl phthalate	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
1,2-Dichlorobenzene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
1,3-Dichlorobenzene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
1,4-Dichlorobenzene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
3,3'-Dichlorobenzidine	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Diethyl phthalate	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Dimethyl phthalate	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2,4-Dinitrotoluene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2,6-Dinitrotoluene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Di-n-octyl phthalate	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Fluoranthene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Fluorene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Hexachlorobenzene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Hexachlorobutadiene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Hexachlorocyclopentadiene	<1.95		1.95		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Hexachloroethane	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Indeno (1,2,3-cd) pyrene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Isophorone	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2-Methylnaphthalene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Naphthalene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00

Client Sample ID: SB-04(LIF-06) 10-12

Lab Sample ID: CVE0494-36

Date Collected: 05/04/12 13:30
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 80.9

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
3-Nitroaniline	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
4-Nitroaniline	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Nitrobenzene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
N-Nitrosodimethylamine	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
N-Nitrosodiphenylamine	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
N-Nitrosodi-n-propylamine	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Phenanthrene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Pyrene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Pyridine	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
1,2,4-Trichlorobenzene	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Benzoic acid	<1.95		1.95		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
4-Chloro-3-methylphenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2-Chlorophenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Cresol(s)	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2,4-Dichlorophenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2,4-Dimethylphenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2,4-Dinitrophenol	<1.95		1.95		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
4,6-Dinitro-2-methylphenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2-Methylphenol (o-Cresol)	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
4-Methylphenol (p-Cresol)	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2-Nitrophenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
4-Nitrophenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Pentachlorophenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
Phenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2,4,5-Trichlorophenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00
2,4,6-Trichlorophenol	<0.976		0.976		mg/kg dry	☼	05/08/12 10:17	05/09/12 20:38	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*53*		*15 - 90*	*05/08/12 10:17*	*05/09/12 20:38*	*1.00*
2-Fluorobiphenyl	*57*		*20 - 90*	*05/08/12 10:17*	*05/09/12 20:38*	*1.00*
Terphenyl-d14	*77*		*35 - 110*	*05/08/12 10:17*	*05/09/12 20:38*	*1.00*
Phenol-d6	*57*		*20 - 90*	*05/08/12 10:17*	*05/09/12 20:38*	*1.00*
2-Fluorophenol	*52*		*15 - 90*	*05/08/12 10:17*	*05/09/12 20:38*	*1.00*
2,4,6-Tribromophenol	*66*		*25 - 105*	*05/08/12 10:17*	*05/09/12 20:38*	*1.00*

Method: 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.050		0.10	0.050	mg/L		05/14/12 08:54	05/15/12 15:54	1
Silvex (2,4,5-TP)	<0.050		0.10	0.050	mg/L		05/14/12 08:54	05/15/12 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*76*		*30 - 129*	*05/14/12 08:54*	*05/15/12 15:54*	*1*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**949**		11.8		mg/kg		05/09/12 10:42	05/14/12 20:17	1.00
Diesel	**220**	**Q**	11.8		mg/kg		05/09/12 10:42	05/14/12 20:17	1.00
Gasoline	**18.8**	**Q**	11.8		mg/kg		05/09/12 10:42	05/14/12 20:17	1.00
Motor Oil	**710**		11.8		mg/kg		05/09/12 10:42	05/14/12 20:17	1.00

Client Sample ID: SB-04(LIF-06) 10-12

Date Collected: 05/04/12 13:30
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-36

Matrix: Soil
Percent Solids: 80.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*509*	*ZX*	*60 - 145*	*05/09/12 10:42*	*05/14/12 20:17*	*1.00*

Method: SW 8081B - TCLP Pesticides by EPA Method 1311/8081A - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	<0.00300		0.00300		mg/L		05/09/12 10:48	05/16/12 19:25	1.00
Endrin	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:25	1.00
gamma-BHC (Lindane)	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:25	1.00
Heptachlor	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:25	1.00
Heptachlor epoxide	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:25	1.00
Methoxychlor	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 19:25	1.00
Toxaphene	<0.00300		0.00300		mg/L		05/09/12 10:48	05/16/12 19:25	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl	*69*		*45 - 130*	*05/09/12 10:48*	*05/16/12 19:25*	*1.00*
Tetrachloro-meta-xylene	*48*		*30 - 100*	*05/09/12 10:48*	*05/16/12 19:25*	*1.00*

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.145		0.145		mg/kg dry	☼	05/09/12 10:43	05/17/12 12:04	1.00
PCB-1221	<0.145		0.145		mg/kg dry	☼	05/09/12 10:43	05/17/12 12:04	1.00
PCB-1232	<0.145		0.145		mg/kg dry	☼	05/09/12 10:43	05/17/12 12:04	1.00
PCB-1242	<0.145		0.145		mg/kg dry	☼	05/09/12 10:43	05/17/12 12:04	1.00
PCB-1248	<0.145		0.145		mg/kg dry	☼	05/09/12 10:43	05/17/12 12:04	1.00
PCB-1254	<0.145		0.145		mg/kg dry	☼	05/09/12 10:43	05/17/12 12:04	1.00
PCB-1260	<0.145		0.145		mg/kg dry	☼	05/09/12 10:43	05/17/12 12:04	1.00
PCB-1268	<0.145		0.145		mg/kg dry	☼	05/09/12 10:43	05/17/12 12:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl	*75*		*40 - 120*	*05/09/12 10:43*	*05/17/12 12:04*	*1.00*
Tetrachloro-meta-xylene	*71*		*10 - 105*	*05/09/12 10:43*	*05/17/12 12:04*	*1.00*

Method: SW 7470A - TCLP Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		05/10/12 16:00	05/11/12 11:44	1.00

Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0213		0.0213		mg/kg dry	☼	05/08/12 13:38	05/08/12 16:28	1.00

Method: SW 6010C - TCLP Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.300		0.300		mg/L		05/09/12 13:10	05/10/12 20:49	1.00
Barium	**0.576**		0.100		mg/L		05/09/12 13:10	05/10/12 20:49	1.00
Cadmium	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:49	1.00
Chromium	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:49	1.00
Lead	<0.100		0.100		mg/L		05/09/12 13:10	05/10/12 20:49	1.00
Selenium	<0.150		0.150		mg/L		05/09/12 13:10	05/10/12 20:49	1.00
Silver	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:49	1.00

Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<4.95		4.95		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:52	1.00
Barium	**43.2**		0.618		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:52	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 10-12

Date Collected: 05/04/12 13:30
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-36

Matrix: Soil
Percent Solids: 80.9

Method: SW 6010C - Total Metals by SW 846 Series Methods (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<1.24		1.24		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:52	1.00
Chromium	**11.5**		1.24		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:52	1.00
Lead	<6.18		6.18		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:52	1.00
Selenium	<9.27		9.27		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:52	1.00
Silver	**1.30**		1.24		mg/kg dry	☼	05/08/12 10:46	05/10/12 09:52	1.00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<12		30	12	mg/Kg	☼	05/10/12 17:20	05/11/12 10:20	1
HEM (Oil & Grease)	**1300**	**B**	610	120	mg/Kg	☼	05/17/12 07:00	05/17/12 13:53	1
Percent Moisture	**19**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**81**		0.10	0.10	%			05/15/12 11:20	1

Method: ASTM D92 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>212°F**				°F		05/15/12 15:15	05/15/12 15:17	1.00

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**80.9**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Method: SW 9012A Mod - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide	<1.24		1.24		mg/kg dry	☼	05/14/12 19:30	05/14/12 21:58	1.00

Method: SW 9045D - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.88**	**H3**	0.100		pH Units		05/10/12 15:46	05/10/12 15:46	1.00

Method: SW 1311 - TCLP Extraction by EPA 1311

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ZHE Temperature Minimum	**20.0**	**T6**			°C		05/09/12 09:45	05/10/12 09:56	1.00
ZHE Temperature Maximum	**25.2**	**T6**			°C		05/09/12 09:45	05/10/12 09:56	1.00

Method: SW 1311 - TCLP Extraction by EPA 1311 - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TCLP Extraction Temp. Minimum	**21.1**				°C		05/07/12 16:00	05/08/12 09:59	1.00
TCLP Extraction Temp. Maximum	**23.3**				°C		05/07/12 16:00	05/08/12 09:59	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 16-18

Lab Sample ID: CVE0494-37

Date Collected: 05/04/12 13:50
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 86.3

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4420		4420		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Benzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Bromobenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Bromochloromethane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Bromodichloromethane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Bromoform	<1770		1770		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Bromomethane	<1770		1770		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
2-Butanone (MEK)	<4420		4420		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
n-Butylbenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
sec-Butylbenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
tert-Butylbenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Carbon disulfide	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Carbon Tetrachloride	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Chlorobenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Chlorodibromomethane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Chloroethane	<1770		1770		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Chloroform	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Chloromethane	<1770		1770		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
2-Chlorotoluene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
4-Chlorotoluene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,2-Dibromo-3-chloropropane	<4420		4420		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,2-Dibromoethane (EDB)	<4420		4420		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Dibromomethane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,2-Dichlorobenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,3-Dichlorobenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,4-Dichlorobenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Dichlorodifluoromethane	<1330		1330		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,1-Dichloroethane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,2-Dichloroethane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,1-Dichloroethene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
cis-1,2-Dichloroethene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
trans-1,2-Dichloroethene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,2-Dichloropropane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,3-Dichloropropane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
2,2-Dichloropropane	<1770		1770		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,1-Dichloropropene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
cis-1,3-Dichloropropene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
trans-1,3-Dichloropropene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Ethylbenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Hexachlorobutadiene	<2210		2210		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Hexane	<2210		2210		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Isopropylbenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
p-Isopropyltoluene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Methylene Chloride	<4420		4420		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Methyl tert-Butyl Ether	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Naphthalene	<2210		2210		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
n-Propylbenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Styrene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,1,1,2-Tetrachloroethane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,1,2,2-Tetrachloroethane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Tetrachloroethene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 16-18

Date Collected: 05/04/12 13:50
Date Received: 05/04/12 19:30

Lab Sample ID: CVE0494-37

Matrix: Soil
Percent Solids: 86.3

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,2,3-Trichlorobenzene	<2210		2210		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,2,4-Trichlorobenzene	<2210		2210		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,1,1-Trichloroethane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,1,2-Trichloroethane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Trichloroethene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Trichlorofluoromethane	<1770		1770		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,2,3-Trichloropropane	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,2,4-Trimethylbenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
1,3,5-Trimethylbenzene	<442		442		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Vinyl chloride	<1330		1330		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100
Xylenes, total	<1330		1330		ug/kg dry	☼	05/16/12 00:00	05/16/12 16:05	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*94*		*75 - 125*	*05/16/12 00:00*	*05/16/12 16:05*	*100*
Toluene-d8	*100*		*80 - 120*	*05/16/12 00:00*	*05/16/12 16:05*	*100*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/16/12 00:00*	*05/16/12 16:05*	*100*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	**17.4**		11.9		mg/kg		05/09/12 10:42	05/14/12 20:58	1.00
Diesel	<11.9		11.9		mg/kg		05/09/12 10:42	05/14/12 20:58	1.00
Gasoline	<11.9		11.9		mg/kg		05/09/12 10:42	05/14/12 20:58	1.00
Motor Oil	**17.4**	**Q**	11.9		mg/kg		05/09/12 10:42	05/14/12 20:58	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*95*		*60 - 145*	*05/09/12 10:42*	*05/14/12 20:58*	*1.00*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**190**	**J B**	560	110	mg/Kg	☼	05/17/12 07:00	05/17/12 14:01	1
Percent Moisture	**14**		0.10	0.10	%			05/15/12 11:20	1
Percent Solids	**86**		0.10	0.10	%			05/15/12 11:20	1

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.3**		0.1		%		05/08/12 15:17	05/08/12 15:17	1.00

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Trip Blank (GA-2)

Lab Sample ID: CVE0494-38

Date Collected: 05/03/12 00:00

Matrix: Water

Date Received: 05/04/12 19:30

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0	L	10.0		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Benzene	<0.500		0.500		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Bromobenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Bromochloromethane	<5.00		5.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Bromodichloromethane	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Bromoform	<5.00	CIN	5.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Bromomethane	<4.00		4.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
2-Butanone (MEK)	<10.0		10.0		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
n-Butylbenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
sec-Butylbenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
tert-Butylbenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Carbon disulfide	<1.00	CIN	1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Carbon Tetrachloride	<2.00		2.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Chlorobenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Chlorodibromomethane	<5.00	CIN	5.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Chloroethane	<4.00		4.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Chloroform	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Chloromethane	<3.00		3.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
2-Chlorotoluene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
4-Chlorotoluene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,2-Dibromo-3-chloropropane	<10.0		10.0		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Dibromomethane	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,2-Dichlorobenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,3-Dichlorobenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,4-Dichlorobenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Dichlorodifluoromethane	<3.00		3.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,1-Dichloroethane	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,2-Dichloroethane	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,1-Dichloroethene	<2.00		2.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
cis-1,2-Dichloroethene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
trans-1,2-Dichloroethene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,2-Dichloropropane	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,3-Dichloropropane	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
2,2-Dichloropropane	<4.00		4.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,1-Dichloropropene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
cis-1,3-Dichloropropene	<5.00		5.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
trans-1,3-Dichloropropene	<5.00	CIN	5.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Ethylbenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Hexachlorobutadiene	<5.00		5.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Hexane	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Isopropylbenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
p-Isopropyltoluene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Methylene Chloride	<5.00		5.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Methyl tert-Butyl Ether	<1.00	CIN	1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Naphthalene	<5.00		5.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
n-Propylbenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Styrene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,1,1,2-Tetrachloroethane	<1.00	CIN	1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,1,2,2-Tetrachloroethane	<1.00	L	1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Tetrachloroethene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00

Client Sample ID: Trip Blank (GA-2)

Lab Sample ID: CVE0494-38

Date Collected: 05/03/12 00:00

Matrix: Water

Date Received: 05/04/12 19:30

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,1,1-Trichloroethane	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,1,2-Trichloroethane	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Trichloroethene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Trichlorofluoromethane	<4.00		4.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,2,3-Trichloropropane	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Vinyl chloride	<1.00		1.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00
Xylenes, total	<3.00		3.00		ug/L		05/08/12 00:00	05/08/12 00:18	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*105*		*75 - 120*	*05/08/12 00:00*	*05/08/12 00:18*	*1.00*
Toluene-d8	*102*		*80 - 120*	*05/08/12 00:00*	*05/08/12 00:18*	*1.00*
4-Bromofluorobenzene	*97*		*75 - 110*	*05/08/12 00:00*	*05/08/12 00:18*	*1.00*

Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<2.00		2.00		units		05/10/12 15:03	05/10/12 15:07	1.00

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Trip Blank (LBW-7)

Lab Sample ID: CVE0494-39

Date Collected: 05/03/12 00:00

Matrix: Water

Date Received: 05/04/12 19:30

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0	L	10.0		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Benzene	<0.500		0.500		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Bromobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Bromochloromethane	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Bromodichloromethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Bromoform	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Bromomethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
2-Butanone (MEK)	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
n-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
sec-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
tert-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Carbon disulfide	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Carbon Tetrachloride	<2.00		2.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Chlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Chlorodibromomethane	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Chloroethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Chloroform	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Chloromethane	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
2-Chlorotoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
4-Chlorotoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,2-Dibromo-3-chloropropane	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Dibromomethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,2-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,3-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,4-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Dichlorodifluoromethane	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,1-Dichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,2-Dichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,1-Dichloroethene	<2.00		2.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
cis-1,2-Dichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
trans-1,2-Dichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,2-Dichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,3-Dichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
2,2-Dichloropropane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,1-Dichloropropene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
cis-1,3-Dichloropropene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
trans-1,3-Dichloropropene	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Ethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Hexachlorobutadiene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Hexane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Isopropylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
p-Isopropyltoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Methylene Chloride	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Methyl tert-Butyl Ether	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Naphthalene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
n-Propylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Styrene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,1,1,2-Tetrachloroethane	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,1,2,2-Tetrachloroethane	<1.00	L	1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Tetrachloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00

Client Sample ID: Trip Blank (LBW-7)

Lab Sample ID: CVE0494-39

Date Collected: 05/03/12 00:00

Matrix: Water

Date Received: 05/04/12 19:30

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,1,1-Trichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,1,2-Trichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Trichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Trichlorofluoromethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,2,3-Trichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Vinyl chloride	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00
Xylenes, total	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 23:11	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*104*		*75 - 120*	*05/07/12 00:00*	*05/07/12 23:11*	*1.00*
Toluene-d8	*100*		*80 - 120*	*05/07/12 00:00*	*05/07/12 23:11*	*1.00*
4-Bromofluorobenzene	*96*		*75 - 110*	*05/07/12 00:00*	*05/07/12 23:11*	*1.00*

Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<2.00		2.00		units		05/10/12 15:03	05/10/12 15:07	1.00

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Trip Blank (Rockford)

Lab Sample ID: CVE0494-40

Date Collected: 05/03/12 00:00

Matrix: Water

Date Received: 05/04/12 19:30

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0	L	10.0		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Benzene	<0.500		0.500		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Bromobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Bromochloromethane	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Bromodichloromethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Bromoform	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Bromomethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
2-Butanone (MEK)	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
n-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
sec-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
tert-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Carbon disulfide	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Carbon Tetrachloride	<2.00		2.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Chlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Chlorodibromomethane	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Chloroethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Chloroform	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Chloromethane	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
2-Chlorotoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
4-Chlorotoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,2-Dibromo-3-chloropropane	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Dibromomethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,2-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,3-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,4-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Dichlorodifluoromethane	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,1-Dichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,2-Dichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,1-Dichloroethene	<2.00		2.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
cis-1,2-Dichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
trans-1,2-Dichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,2-Dichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,3-Dichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
2,2-Dichloropropane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,1-Dichloropropene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
cis-1,3-Dichloropropene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
trans-1,3-Dichloropropene	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Ethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Hexachlorobutadiene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Hexane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Isopropylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
p-Isopropyltoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Methylene Chloride	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Methyl tert-Butyl Ether	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Naphthalene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
n-Propylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Styrene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,1,1,2-Tetrachloroethane	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,1,2,2-Tetrachloroethane	<1.00	L	1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Tetrachloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Trip Blank (Rockford)

Lab Sample ID: CVE0494-40

Date Collected: 05/03/12 00:00

Matrix: Water

Date Received: 05/04/12 19:30

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,1,1-Trichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,1,2-Trichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Trichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Trichlorofluoromethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,2,3-Trichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Vinyl chloride	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00
Xylenes, total	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 23:33	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*109*		*75 - 120*	*05/07/12 00:00*	*05/07/12 23:33*	*1.00*
Toluene-d8	*101*		*80 - 120*	*05/07/12 00:00*	*05/07/12 23:33*	*1.00*
4-Bromofluorobenzene	*100*		*75 - 110*	*05/07/12 00:00*	*05/07/12 23:33*	*1.00*

Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<2.00		2.00		units		05/10/12 15:03	05/10/12 15:07	1.00

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Trip Blank (002)

Lab Sample ID: CVE0494-41

Date Collected: 05/03/12 00:00

Matrix: Water

Date Received: 05/04/12 19:30

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0	L	10.0		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Benzene	<0.500		0.500		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Bromobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Bromochloromethane	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Bromodichloromethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Bromoform	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Bromomethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
2-Butanone (MEK)	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
n-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
sec-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
tert-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Carbon disulfide	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Carbon Tetrachloride	<2.00		2.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Chlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Chlorodibromomethane	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Chloroethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Chloroform	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Chloromethane	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
2-Chlorotoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
4-Chlorotoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,2-Dibromo-3-chloropropane	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Dibromomethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,2-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,3-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,4-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Dichlorodifluoromethane	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,1-Dichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,2-Dichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,1-Dichloroethene	<2.00		2.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
cis-1,2-Dichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
trans-1,2-Dichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,2-Dichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,3-Dichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
2,2-Dichloropropane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,1-Dichloropropene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
cis-1,3-Dichloropropene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
trans-1,3-Dichloropropene	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Ethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Hexachlorobutadiene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Hexane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Isopropylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
p-Isopropyltoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Methylene Chloride	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Methyl tert-Butyl Ether	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Naphthalene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
n-Propylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Styrene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,1,1,2-Tetrachloroethane	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,1,2,2-Tetrachloroethane	<1.00	L	1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Tetrachloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00

Client Sample ID: Trip Blank (002)

Lab Sample ID: CVE0494-41

Date Collected: 05/03/12 00:00

Matrix: Water

Date Received: 05/04/12 19:30

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,1,1-Trichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,1,2-Trichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Trichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Trichlorofluoromethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,2,3-Trichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Vinyl chloride	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00
Xylenes, total	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 23:56	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*103*		*75 - 120*	*05/07/12 00:00*	*05/07/12 23:56*	*1.00*
Toluene-d8	*99*		*80 - 120*	*05/07/12 00:00*	*05/07/12 23:56*	*1.00*
4-Bromofluorobenzene	*94*		*75 - 110*	*05/07/12 00:00*	*05/07/12 23:56*	*1.00*

Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<2.00		2.00		units		05/10/12 15:03	05/10/12 15:07	1.00

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Method: SW 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B

Matrix: Soil **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-125)	(80-120)	(80-120)
CVE0494-16	SB-03(MIP-30) 06-08	109	102	92
CVE0494-23	SB-05(MIP-23) 02-04	112	103	93
CVE0494-26	SB-12(MIP-16a) 04-08	108	100	91
CVE0494-36	SB-04(LIF-06) 10-12	112	101	94

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Method: SW 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B

Matrix: Solid/Soil **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-125)	(80-120)	(80-120)
12E0602-BLK1	Method Blank	111	104	95
12E0602-BS1	Lab Control Sample	96	103	97
12E0602-DUP1	SB-12(MIP-16a) 04-08	119	102	92
12E0602-MS1	Matrix Spike	97	101	94
12E0602-MSD1	Matrix Spike Duplicate	100	102	91

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Method: SW 8260B - Volatile Organic Compounds

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-125)	(80-120)	(80-120)
CVE0494-01	SB-01(MIP-15) 02-04	100	100	100
CVE0494-02	SB-01(MIP-15) 07-09	102	100	99
CVE0494-03	SB-01(MIP-15) 15-17	99	101	99
CVE0494-04	SB-01(MIP-15) 31-33	102	100	99
CVE0494-06	SB-02(MIP-34) 14-16	101	100	99
CVE0494-07	SB-02(MIP-34) 28-30	102	99	101
CVE0494-08	SB-13(MIP-32) 01-03	103	100	99
CVE0494-09	SB-13(MIP-32) 04-06	92	100	98
CVE0494-10	SB-13(MIP-32) 10-12	101	100	99
CVE0494-11	SB-13(MIP-32) 16-18	102	100	99
CVE0494-12	SB-13(MIP-32) 26-28	101	100	100
CVE0494-13	SB-11(MIP-02) 14-16	101	100	98
CVE0494-14	SB-11(MIP-02) 18-20	102	100	100
CVE0494-15	SB-03(MIP-30) 02-04	102	100	99
CVE0494-16	SB-03(MIP-30) 06-08	100	99	102
CVE0494-17	SB-03(MIP-30) 16-18	100	99	99
CVE0494-20	SB-08(MIP-25) 02-04	101	100	98
CVE0494-21	Duplicate-2	101	99	98

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Method: SW 8260B - Volatile Organic Compounds (Continued)

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-125)	(80-120)	(80-120)
CVE0494-22	SB-08(MIP-25) 10-12	99	100	99
CVE0494-23	SB-05(MIP-23) 02-04	101	100	100
CVE0494-24	SB-05(MIP-23) 06-08	101	100	100
CVE0494-25	SB-05(MIP-23) 12-14	100	99	98
CVE0494-26	SB-12(MIP-16a) 04-08	100	100	99
CVE0494-27	Duplicate-3	102	101	98
CVE0494-28	SB-12(MIP-16a) 10-12	100	99	99
CVE0494-29	SB-03(MIP-30) 22-24	100	100	100
CVE0494-30	SB-10(MIP-12) 05-07	101	101	98
CVE0494-31	SB-10(MIP-12) 16-18	99	99	99
CVE0494-32	SB-06(MIP-27) 06-08	97	100	100
CVE0494-33	Duplicate-1	99	100	101
CVE0494-34	SB-06(MIP-27) 20-22	95	101	99
CVE0494-35	SB-04(LIF-06) 06-08	95	101	104
CVE0494-36	SB-04(LIF-06) 10-12	95	99	96
CVE0494-37	SB-04(LIF-06) 16-18	94	100	99

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Method: SW 8260B - Volatile Organic Compounds

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-125)	(80-120)	(80-120)
12E0709-BLK1	Method Blank	101	98	97
12E0709-BS1	Lab Control Sample	100	100	100
12E0709-BSD1	Lab Control Sample Dup	100	100	99
12E0713-BLK1	Method Blank	99	99	95
12E0713-BS1	Lab Control Sample	101	99	99
12E0713-BSD1	Lab Control Sample Dup	100	100	99
12E0839-BLK1	Method Blank	98	100	99
12E0839-BS1	Lab Control Sample	96	98	98
12E0839-BSD1	Lab Control Sample Dup	97	100	102
12E0868-BLK1	Method Blank	94	99	95
12E0868-BS1	Lab Control Sample	102	99	99
12E0868-BSD1	Lab Control Sample Dup	100	98	98

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Method: SW 8260B - Volatile Organic Compounds

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-120)	(80-120)	(75-110)
CVE0494-38	Trip Blank (GA-2)	105	102	97
CVE0494-39	Trip Blank (LBW-7)	104	100	96
CVE0494-40	Trip Blank (Rockford)	109	101	100
CVE0494-41	Trip Blank (002)	103	99	94

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Method: SW 8260B - Volatile Organic Compounds

Matrix: Water - NonPotable **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-120)	(80-120)	(75-110)
12E0527-BLK1	Method Blank	106	100	98

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Method: SW 8260B - Volatile Organic Compounds

Matrix: Water - NonPotable **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-120)	(80-120)	(80-120)
12E0527-BS1	Lab Control Sample	105	103	97
12E0527-MS1	Matrix Spike	105	102	97
12E0527-MSD1	Matrix Spike Duplicate	110	101	99

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C

Matrix: Soil **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	FBP	TPH	PHL	2FP	TBP
Lab Sample ID	Client Sample ID	(20-90)	(25-95)	(35-110)	(10-45)	(10-60)	(30-105)
CVE0494-16	SB-03(MIP-30) 06-08	79	72	79	34	48	82
CVE0494-23	SB-05(MIP-23) 02-04	51	49	61	23	32	55
CVE0494-26	SB-12(MIP-16a) 04-08	50	47	61	23	33	54
CVE0494-36	SB-04(LIF-06) 10-12	48	46	58	23	31	54

Surrogate Legend

NBZ = Nitrobenzene-d5

FBP = 2-Fluorobiphenyl

TPH = Terphenyl-d14
PHL = Phenol-d6
2FP = 2-Fluorophenol
TBP = 2,4,6-Tribromophenol

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C

Matrix: Water - NonPotable **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	FBP	TPH	PHL	2FP	TBP
Lab Sample ID	Client Sample ID	(20-90)	(25-95)	(35-110)	(10-45)	(10-60)	(30-105)
12E0539-BLK1	Method Blank	61	53	81	27	38	61
12E0539-BLK2	Method Blank	64	58	77	28	39	66
12E0539-BLK3	Method Blank	62	60	76	26	38	66
12E0539-BLK4	Method Blank	69	65	76	29	42	67

Surrogate Legend

NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14
PHL = Phenol-d6
2FP = 2-Fluorophenol
TBP = 2,4,6-Tribromophenol

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C

Matrix: Water - NonPotable **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	FBP	TPH	PHL	2FP	TBP
Lab Sample ID	Client Sample ID	(30-85)	(30-90)	(40-105)	(10-45)	(15-55)	(35-105)
12E0539-BS1	Lab Control Sample	65	62	81	27	40	66

Surrogate Legend

NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14
PHL = Phenol-d6
2FP = 2-Fluorophenol
TBP = 2,4,6-Tribromophenol

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C

Matrix: Water - NonPotable **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	FBP	TPH	PHL	2FP	TBP
Lab Sample ID	Client Sample ID	(20-90)	(25-95)	(35-115)	(10-45)	(10-60)	(25-120)
12E0539-MS1	Matrix Spike	60	58	78	26	36	65
12E0539-MSD1	Matrix Spike Duplicate	61	58	76	27	38	67

Surrogate Legend

NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14
PHL = Phenol-d6
2FP = 2-Fluorophenol
TBP = 2,4,6-Tribromophenol

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Method: SW 8270D - Semivolatile Organics by GC/MS

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	FBP	TPH	PHL	2FP	TBP
Lab Sample ID	Client Sample ID	(15-90)	(20-90)	(35-110)	(20-90)	(15-90)	(25-105)
CVE0494-16	SB-03(MIP-30) 06-08	44	53	74	46	42	64
CVE0494-23	SB-05(MIP-23) 02-04	49	48	72	55	49	59
CVE0494-26	SB-12(MIP-16a) 04-08	61 RL1	64 RL1	66 RL1	55 RL1	46 RL1	53 RL1
CVE0494-36	SB-04(LIF-06) 10-12	53	57	77	57	52	66

Surrogate Legend

NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14
PHL = Phenol-d6
2FP = 2-Fluorophenol
TBP = 2,4,6-Tribromophenol

Method: SW 8270D - Semivolatile Organics by GC/MS

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	FBP	TPH	PHL	2FP	TBP
Lab Sample ID	Client Sample ID	(15-90)	(20-90)	(35-110)	(20-90)	(15-90)	(25-105)
12E0414-BLK1	Method Blank	56	53	61	57	53	55
12E0414-BLK2	Method Blank	51	49	70	47	47	53

Surrogate Legend

NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14
PHL = Phenol-d6
2FP = 2-Fluorophenol
TBP = 2,4,6-Tribromophenol

Method: SW 8270D - Semivolatile Organics by GC/MS

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	FBP	TPH	PHL	2FP	TBP
Lab Sample ID	Client Sample ID	(15-90)	(25-90)	(40-110)	(15-95)	(10-90)	(35-100)
12E0414-BS1	Lab Control Sample	33	33	47	36	35	41
12E0414-BS3	Lab Control Sample	30	31	54	29	31	40

Surrogate Legend

NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14
PHL = Phenol-d6
2FP = 2-Fluorophenol
TBP = 2,4,6-Tribromophenol

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Method: SW 8270D - Semivolatile Organics by GC/MS

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	FBP	TPH	PHL	2FP	TBP
Lab Sample ID	Client Sample ID	(10-95)	(10-105)	(20-115)	(10-100)	(10-95)	(15-110)
12E0414-MS1	Matrix Spike	40	40	51	44	42	48
12E0414-MSD1	Matrix Spike Duplicate	40	41	54	42	39	50

Surrogate Legend

NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14
PHL = Phenol-d6
2FP = 2-Fluorophenol
TBP = 2,4,6-Tribromophenol

Method: 8151 - TCLP Herbicides

Matrix: Soil **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)
		DCPA1
Lab Sample ID	Client Sample ID	(30-129)
CVE0494-16	SB-03(MIP-30) 06-08	70
CVE0494-23	SB-05(MIP-23) 02-04	78
CVE0494-26	SB-12(MIP-16a) 04-08	76
CVE0494-36	SB-04(LIF-06) 10-12	76

Surrogate Legend

DCPA = DCAA

Method: 8151 - TCLP Herbicides

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		DCPA1
Lab Sample ID	Client Sample ID	(30-129)
LCS 500-149617/2-A	Lab Control Sample	70
MB 500-149617/1-A	Method Blank	73

Surrogate Legend

DCPA = DCAA

Method: 8151 - TCLP Herbicides

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)
		DCPA1
Lab Sample ID	Client Sample ID	(30-129)
LB 500-149288/1-B LB	Method Blank	78

Surrogate Legend

DCPA = DCAA

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Octacosane (60-145)						
CVE0494-01	SB-01(MIP-15) 02-04	762 ZX						
CVE0494-02	SB-01(MIP-15) 07-09	137						
CVE0494-03	SB-01(MIP-15) 15-17	85						
CVE0494-04	SB-01(MIP-15) 31-33	83						
CVE0494-05	SB-02(MIP-34) 02-04	71						
CVE0494-08	SB-13(MIP-32) 01-03	700 ZX						
CVE0494-09	SB-13(MIP-32) 04-06	8460 ZX						
CVE0494-10	SB-13(MIP-32) 10-12	195 ZX						
CVE0494-11	SB-13(MIP-32) 16-18	98						
CVE0494-12	SB-13(MIP-32) 26-28	106						
CVE0494-15	SB-03(MIP-30) 02-04	89						
CVE0494-16	SB-03(MIP-30) 06-08	ZX						
CVE0494-17	SB-03(MIP-30) 16-18	93						
CVE0494-18	SB-07(MIP-29) 02-04	80						
CVE0494-19	SB-09(MIP-09) 03-05	74						
CVE0494-20	SB-08(MIP-25) 02-04	76						
CVE0494-21	Duplicate-2	76						
CVE0494-22	SB-08(MIP-25) 10-12	83						
CVE0494-23	SB-05(MIP-23) 02-04	74						
CVE0494-24	SB-05(MIP-23) 06-08	89						
CVE0494-25	SB-05(MIP-23) 12-14	95						
CVE0494-26	SB-12(MIP-16a) 04-08	5900 ZX						
CVE0494-27	Duplicate-3	6130 ZX						
CVE0494-28	SB-12(MIP-16a) 10-12	144						
CVE0494-29	SB-03(MIP-30) 22-24	94						
CVE0494-30	SB-10(MIP-12) 05-07	100						
CVE0494-35	SB-04(LIF-06) 06-08	3800 ZX						
CVE0494-36	SB-04(LIF-06) 10-12	509 ZX						
CVE0494-37	SB-04(LIF-06) 16-18	95						

Surrogate Legend

Octacosane = Octacosane

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Octacosane (60-145)						
12E0361-BLK1	Method Blank	80						
12E0412-BLK1	Method Blank	74						
12E0474-BLK1	Method Blank	87						

Surrogate Legend

Octacosane = Octacosane

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Octacosane (60-150)						
12E0361-BS1	Lab Control Sample	81						
12E0361-MS1	Matrix Spike	64						
12E0361-MSD1	Matrix Spike Duplicate	66						
12E0412-BS1	Lab Control Sample	80						
12E0412-MS1	SB-01(MIP-15) 31-33	88						
12E0412-MSD1	SB-01(MIP-15) 31-33	98						
12E0474-BS1	Lab Control Sample	82						
12E0474-MS1	SB-12(MIP-16a) 04-08	5890 ZX						
12E0474-MSD1	SB-12(MIP-16a) 04-08	ZX						

Surrogate Legend

Octacosane = Octacosane

Method: SW 8081B - TCLP Pesticides by EPA Method 1311/8081A

Matrix: Soil **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	ıchlorobiph (45-130)	ıloro-meta- (30-100)					
CVE0494-16	SB-03(MIP-30) 06-08	58	58					
CVE0494-23	SB-05(MIP-23) 02-04	76	63					
CVE0494-26	SB-12(MIP-16a) 04-08	72	74					
CVE0494-36	SB-04(LIF-06) 10-12	69	48					

Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

Method: SW 8081B - TCLP Pesticides by EPA Method 1311/8081A

Matrix: Water - NonPotable **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	ıchlorobiph (40-135)	ıloro-meta- (35-110)					
12E0476-BS1	Lab Control Sample	80	55					
12E0476-BSD1	Lab Control Sample Dup	85	58					

Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

Method: SW 8081B - TCLP Pesticides by EPA Method 1311/8081A

Matrix: Water - NonPotable **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	ıchlorobiph (45-130)	ıloro-meta- (30-100)					
12E0476-BLK1	Method Blank	81	60					

Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		ıchlorobiph	ıloro-meta-						
Lab Sample ID	**Client Sample ID**	**(40-120)**	**(10-105)**						
CVE0494-16	SB-03(MIP-30) 06-08	89	89						
CVE0494-23	SB-05(MIP-23) 02-04	79	57						
CVE0494-26	SB-12(MIP-16a) 04-08	78	103						
CVE0494-27	Duplicate-3	77	89						
CVE0494-36	SB-04(LIF-06) 10-12	75	71						

Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		ıchlorobiph	ıloro-meta-						
Lab Sample ID	**Client Sample ID**	**(40-120)**	**(10-105)**						
12E0475-BLK1	Method Blank	86	78						

Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		ıchlorobiph	ıloro-meta-						
Lab Sample ID	**Client Sample ID**	**(40-135)**	**(15-110)**						
12E0475-BS1	Lab Control Sample	95	91						

Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)							
		ıchlorobiph	ıloro-meta-						
Lab Sample ID	**Client Sample ID**	**(25-135)**	**(15-110)**						
12E0475-MS1	SB-05(MIP-23) 02-04	78	71						
12E0475-MSD1	SB-05(MIP-23) 02-04	74	56						

Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

Method: SW 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B

Lab Sample ID: 12E0602-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0602 — **Prep Batch: 12E0602_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0100		0.0100		mg/L		05/10/12 00:00	05/10/12 19:18	20.0
2-Butanone (MEK)	2.53	L	0.200		mg/L		05/10/12 00:00	05/10/12 19:18	20.0
Carbon Tetrachloride	<0.0400		0.0400		mg/L		05/10/12 00:00	05/10/12 19:18	20.0
Chlorobenzene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 19:18	20.0
Chloroform	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 19:18	20.0
1,2-Dichloroethane	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 19:18	20.0
1,1-Dichloroethene	<0.0400		0.0400		mg/L		05/10/12 00:00	05/10/12 19:18	20.0
Tetrachloroethene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 19:18	20.0
Trichloroethene	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 19:18	20.0
Vinyl chloride	<0.0200		0.0200		mg/L		05/10/12 00:00	05/10/12 19:18	20.0

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*111*		*75 - 125*	*05/10/12 00:00*	*05/10/12 19:18*	*20.0*
Toluene-d8	*104*		*80 - 120*	*05/10/12 00:00*	*05/10/12 19:18*	*20.0*
4-Bromofluorobenzene	*95*		*80 - 120*	*05/10/12 00:00*	*05/10/12 19:18*	*20.0*

Lab Sample ID: 12E0602-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0602 — **Prep Batch: 12E0602_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	100	101		ug/L		101	55 - 135
2-Butanone (MEK)	100	212	B L	ug/L		212	50 - 145
Carbon Tetrachloride	100	88.2		ug/L		88	55 - 130
Chlorobenzene	100	95.5		ug/L		96	60 - 120
Chloroform	100	92.9		ug/L		93	65 - 130
1,2-Dichloroethane	100	96.1		ug/L		96	60 - 140
1,1-Dichloroethene	100	96.3		ug/L		96	50 - 145
Tetrachloroethene	100	86.5		ug/L		86	55 - 125
Trichloroethene	100	95.2		ug/L		95	60 - 130
Vinyl chloride	100	91.2		ug/L		91	45 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*96*		*75 - 125*
Toluene-d8	*103*		*80 - 120*
4-Bromofluorobenzene	*97*		*80 - 120*

Lab Sample ID: 12E0602-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0602 — **Prep Batch: 12E0602_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.0100		100	105		ug/L		105	40 - 135
2-Butanone (MEK)	0.450		100	94.9	B L	ug/L		94	40 - 145
Carbon Tetrachloride	0.210		100	91.9		ug/L		92	45 - 130
Chlorobenzene	0.0200		100	99.1		ug/L		99	35 - 120
Chloroform	0.260		100	96.6		ug/L		96	55 - 130
1,2-Dichloroethane	<0.0200		100	99.0		ug/L		99	50 - 140
1,1-Dichloroethene	<0.0400		100	102		ug/L		102	45 - 145

Method: SW 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B (Continued)

Lab Sample ID: 12E0602-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0602 — **Prep Batch: 12E0602_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	<0.0200		100	89.4		ug/L		89	30 - 125
Trichloroethene	<0.0200		100	101		ug/L		101	40 - 130
Vinyl chloride	<0.0200		100	92.5		ug/L		92	40 - 140

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*97*		*75 - 125*
Toluene-d8	*101*		*80 - 120*
4-Bromofluorobenzene	*94*		*80 - 120*

Lab Sample ID: 12E0602-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0602 — **Prep Batch: 12E0602_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.0100		100	100		ug/L		100	40 - 135	4	40
2-Butanone (MEK)	0.450		100	89.7	B L	ug/L		89	40 - 145	6	40
Carbon Tetrachloride	0.210		100	87.4		ug/L		87	45 - 130	5	35
Chlorobenzene	0.0200		100	95.6		ug/L		96	35 - 120	4	35
Chloroform	0.260		100	94.7		ug/L		94	55 - 130	2	35
1,2-Dichloroethane	<0.0200		100	98.6		ug/L		99	50 - 140	0.4	40
1,1-Dichloroethene	<0.0400		100	101		ug/L		101	45 - 145	1	35
Tetrachloroethene	<0.0200		100	86.3		ug/L		86	30 - 125	4	40
Trichloroethene	<0.0200		100	93.3		ug/L		93	40 - 130	8	35
Vinyl chloride	<0.0200		100	88.8		ug/L		89	40 - 140	4	40

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Dibromofluoromethane	*100*		*75 - 125*
Toluene-d8	*102*		*80 - 120*
4-Bromofluorobenzene	*91*		*80 - 120*

Lab Sample ID: 12E0602-DUP1 — **Client Sample ID: SB-12(MIP-16a) 04-08**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0602 — **Prep Batch: 12E0602_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Benzene	<0.0100		<0.0100		mg/L			200
2-Butanone (MEK)	<0.200	L	<0.200	L	mg/L			200
Carbon Tetrachloride	<0.0400		<0.0400		mg/L			200
Chlorobenzene	<0.0200		<0.0200		mg/L			200
Chloroform	<0.0200		<0.0200		mg/L			200
1,2-Dichloroethane	<0.0200		<0.0200		mg/L			200
1,1-Dichloroethene	<0.0400		<0.0400		mg/L			200
Tetrachloroethene	<0.0200		<0.0200		mg/L			200
Trichloroethene	<0.0200		<0.0200		mg/L			200
Vinyl chloride	<0.0200		<0.0200		mg/L			200

Method: SW 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B (Continued)

Lab Sample ID: 12E0602-DUP1
Matrix: Solid/Soil
Analysis Batch: 12E0602

Client Sample ID: SB-12(MIP-16a) 04-08
Prep Type: TCLP
Prep Batch: 12E0602_P

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
Dibromofluoromethane	*119*		*75 - 125*
Toluene-d8	*102*		*80 - 120*
4-Bromofluorobenzene	*92*		*80 - 120*

Method: SW 8260B - Volatile Organic Compounds

Lab Sample ID: 12E0527-BLK1
Matrix: Water - NonPotable
Analysis Batch: 12E0527

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0527_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0	L	10.0		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Benzene	<0.500		0.500		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Bromobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Bromochloromethane	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Bromodichloromethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Bromoform	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Bromomethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
2-Butanone (MEK)	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
n-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
sec-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
tert-Butylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Carbon disulfide	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Carbon Tetrachloride	<2.00		2.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Chlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Chlorodibromomethane	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Chloroethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Chloroform	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Chloromethane	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
2-Chlorotoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
4-Chlorotoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,2-Dibromo-3-chloropropane	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Dibromomethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,2-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,3-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,4-Dichlorobenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Dichlorodifluoromethane	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,1-Dichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,2-Dichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,1-Dichloroethene	<2.00		2.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
cis-1,2-Dichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
trans-1,2-Dichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,2-Dichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,3-Dichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
2,2-Dichloropropane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,1-Dichloropropene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
cis-1,3-Dichloropropene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0527-BLK1
Matrix: Water - NonPotable
Analysis Batch: 12E0527

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0527_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<5.00	CIN	5.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Ethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Hexachlorobutadiene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Hexane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Isopropylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
p-Isopropyltoluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Methylene Chloride	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Methyl tert-Butyl Ether	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Naphthalene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
n-Propylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Styrene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,1,1,2-Tetrachloroethane	<1.00	CIN	1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,1,2,2-Tetrachloroethane	<1.00	L	1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Tetrachloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Toluene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,1,1-Trichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,1,2-Trichloroethane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Trichloroethene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Trichlorofluoromethane	<4.00		4.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,2,3-Trichloropropane	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Vinyl chloride	<1.00		1.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00
Xylenes, total	<3.00		3.00		ug/L		05/07/12 00:00	05/07/12 19:27	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*75 - 120*	*05/07/12 00:00*	*05/07/12 19:27*	*1.00*
Toluene-d8	*100*		*80 - 120*	*05/07/12 00:00*	*05/07/12 19:27*	*1.00*
4-Bromofluorobenzene	*98*		*75 - 110*	*05/07/12 00:00*	*05/07/12 19:27*	*1.00*

Lab Sample ID: 12E0527-BS1
Matrix: Water - NonPotable
Analysis Batch: 12E0527

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0527_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	30.2	L	ug/L		151	60 - 150
Benzene	20.0	23.4		ug/L		117	70 - 130
Bromobenzene	20.0	22.3		ug/L		112	75 - 130
Bromochloromethane	20.0	24.7		ug/L		124	65 - 145
Bromodichloromethane	20.0	22.4		ug/L		112	60 - 130
Bromoform	20.0	19.6	CIN	ug/L		98	30 - 125
Bromomethane	20.0	18.8		ug/L		94	35 - 130
2-Butanone (MEK)	20.0	25.7		ug/L		129	55 - 140
n-Butylbenzene	20.0	23.6		ug/L		118	55 - 135
sec-Butylbenzene	20.0	24.0		ug/L		120	65 - 135
tert-Butylbenzene	20.0	23.7		ug/L		119	60 - 135
Carbon disulfide	20.0	22.1	CIN	ug/L		111	40 - 130

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0527-BS1
Matrix: Water - NonPotable
Analysis Batch: 12E0527

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0527_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon Tetrachloride	20.0	21.2		ug/L		106	55 - 130
Chlorobenzene	20.0	24.4		ug/L		122	75 - 125
Chlorodibromomethane	20.0	19.6	CIN	ug/L		98	45 - 125
Chloroethane	20.0	22.1		ug/L		111	55 - 135
Chloroform	20.0	22.6		ug/L		113	70 - 125
Chloromethane	20.0	19.4		ug/L		97	30 - 125
2-Chlorotoluene	20.0	23.5		ug/L		117	75 - 135
4-Chlorotoluene	20.0	23.5		ug/L		117	70 - 140
1,2-Dibromo-3-chloropropane	20.0	20.3		ug/L		101	35 - 130
1,2-Dibromoethane (EDB)	20.0	24.8		ug/L		124	70 - 135
Dibromomethane	20.0	22.8		ug/L		114	75 - 130
1,2-Dichlorobenzene	20.0	23.7		ug/L		119	65 - 135
1,3-Dichlorobenzene	20.0	23.4		ug/L		117	70 - 130
1,4-Dichlorobenzene	20.0	21.9		ug/L		109	60 - 140
Dichlorodifluoromethane	20.0	16.7		ug/L		83	35 - 130
1,1-Dichloroethane	20.0	23.5		ug/L		118	60 - 130
1,2-Dichloroethane	20.0	24.1		ug/L		121	65 - 140
1,1-Dichloroethene	20.0	21.2		ug/L		106	60 - 135
cis-1,2-Dichloroethene	20.0	22.6		ug/L		113	70 - 135
trans-1,2-Dichloroethene	20.0	23.3		ug/L		117	60 - 145
1,2-Dichloropropane	20.0	23.7		ug/L		119	65 - 130
1,3-Dichloropropane	20.0	23.7		ug/L		118	75 - 125
2,2-Dichloropropane	20.0	21.6		ug/L		108	25 - 120
1,1-Dichloropropene	20.0	24.8		ug/L		124	60 - 140
cis-1,3-Dichloropropene	20.0	20.4		ug/L		102	30 - 120
trans-1,3-Dichloropropene	20.0	20.0	CIN	ug/L		100	35 - 120
Ethylbenzene	20.0	23.2		ug/L		116	70 - 130
Hexachlorobutadiene	20.0	21.3		ug/L		107	60 - 135
Hexane	20.0	21.3		ug/L		107	40 - 135
Isopropylbenzene	20.0	23.2		ug/L		116	70 - 125
p-Isopropyltoluene	20.0	23.9		ug/L		120	60 - 140
Methylene Chloride	20.0	23.6		ug/L		118	55 - 145
Methyl tert-Butyl Ether	20.0	25.3	CIN	ug/L		127	50 - 135
Naphthalene	20.0	24.0		ug/L		120	40 - 135
n-Propylbenzene	20.0	23.1		ug/L		115	70 - 135
Styrene	20.0	22.3		ug/L		112	70 - 130
1,1,1,2-Tetrachloroethane	20.0	23.2	CIN	ug/L		116	65 - 120
1,1,2,2-Tetrachloroethane	20.0	26.5	L	ug/L		132	65 - 130
Tetrachloroethene	20.0	23.9		ug/L		120	70 - 135
Toluene	20.0	24.0		ug/L		120	70 - 135
1,2,3-Trichlorobenzene	20.0	23.4		ug/L		117	55 - 130
1,2,4-Trichlorobenzene	20.0	22.0		ug/L		110	40 - 135
1,1,1-Trichloroethane	20.0	22.6		ug/L		113	60 - 125
1,1,2-Trichloroethane	20.0	22.8		ug/L		114	75 - 125
Trichloroethene	20.0	24.0		ug/L		120	70 - 130
Trichlorofluoromethane	20.0	21.4		ug/L		107	55 - 145
1,2,3-Trichloropropane	20.0	24.4		ug/L		122	60 - 150
1,2,4-Trimethylbenzene	20.0	22.9		ug/L		114	70 - 140
1,3,5-Trimethylbenzene	20.0	23.8		ug/L		119	70 - 140
Vinyl chloride	20.0	20.8		ug/L		104	45 - 135

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0527-BS1
Matrix: Water - NonPotable
Analysis Batch: 12E0527

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0527_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Xylenes, total			60.0	71.4		ug/L		119	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*105*		*75 - 120*
Toluene-d8	*103*		*80 - 120*
4-Bromofluorobenzene	*97*		*80 - 120*

Lab Sample ID: 12E0527-MS1
Matrix: Water - NonPotable
Analysis Batch: 12E0527

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12E0527_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Acetone	1.24		20.0	19.9	L	ug/L		93	45 - 150		
Benzene	<0.110		20.0	16.9		ug/L		84	50 - 130		
Bromobenzene	0.0300		20.0	16.9		ug/L		84	60 - 135		
Bromochloromethane	<0.120		20.0	19.6		ug/L		98	55 - 145		
Bromodichloromethane	0.0200		20.0	16.6		ug/L		83	50 - 130		
Bromoform	<0.140		20.0	13.4	CIN	ug/L		67	30 - 125		
Bromomethane	0.110		20.0	16.3		ug/L		81	30 - 130		
2-Butanone (MEK)	0.420		20.0	16.9		ug/L		82	45 - 140		
n-Butylbenzene	0.0100		20.0	16.0		ug/L		80	40 - 135		
sec-Butylbenzene	0.0200		20.0	16.5		ug/L		83	40 - 135		
tert-Butylbenzene	<0.120		20.0	15.9		ug/L		80	40 - 135		
Carbon disulfide	0.0600		20.0	16.5	CIN	ug/L		82	30 - 130		
Carbon Tetrachloride	<0.240		20.0	15.1		ug/L		75	35 - 130		
Chlorobenzene	<0.190		20.0	17.8		ug/L		89	60 - 130		
Chlorodibromomethane	0.0300		20.0	14.1	CIN	ug/L		70	35 - 130		
Chloroethane	0.0400		20.0	17.3		ug/L		86	40 - 135		
Chloroform	<0.280		20.0	16.3		ug/L		81	55 - 125		
Chloromethane	0.0100		20.0	15.5		ug/L		77	25 - 125		
2-Chlorotoluene	0.0100		20.0	16.5		ug/L		83	55 - 140		
4-Chlorotoluene	0.0100		20.0	16.4		ug/L		82	50 - 140		
1,2-Dibromo-3-chloropropane	<0.120		20.0	13.8		ug/L		69	35 - 130		
1,2-Dibromoethane (EDB)	<0.130		20.0	17.5		ug/L		88	55 - 140		
Dibromomethane	0.0300		20.0	16.7		ug/L		83	60 - 135		
1,2-Dichlorobenzene	0.0200		20.0	16.5		ug/L		82	55 - 140		
1,3-Dichlorobenzene	0.0500		20.0	15.6		ug/L		78	55 - 135		
1,4-Dichlorobenzene	0.0300		20.0	16.1		ug/L		81	55 - 140		
Dichlorodifluoromethane	<0.200		20.0	12.1		ug/L		60	15 - 130		
1,1-Dichloroethane	<0.210		20.0	17.4		ug/L		87	50 - 130		
1,2-Dichloroethane	<0.180		20.0	17.9		ug/L		89	55 - 140		
1,1-Dichloroethene	0.0700		20.0	15.4		ug/L		77	35 - 135		
cis-1,2-Dichloroethene	0.0100		20.0	17.9		ug/L		89	45 - 135		
trans-1,2-Dichloroethene	0.0400		20.0	17.1		ug/L		85	45 - 145		
1,2-Dichloropropane	<0.870		20.0	17.1		ug/L		86	55 - 130		
1,3-Dichloropropane	0.0100		20.0	17.2		ug/L		86	60 - 135		
2,2-Dichloropropane	0.0200		20.0	16.1		ug/L		81	20 - 120		
1,1-Dichloropropene	<0.150		20.0	18.5		ug/L		92	40 - 140		
cis-1,3-Dichloropropene	<0.150		20.0	16.1		ug/L		81	25 - 120		

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0527-MS1
Matrix: Water - NonPotable
Analysis Batch: 12E0527

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12E0527_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	<0.220		20.0	13.9	CIN	ug/L		70	25 - 120
Ethylbenzene	0.0200		20.0	17.0		ug/L		85	45 - 135
Hexachlorobutadiene	<0.200		20.0	15.8		ug/L		79	40 - 135
Hexane	0.0800		20.0	14.3		ug/L		71	25 - 135
Isopropylbenzene	0.0100		20.0	16.0		ug/L		80	45 - 125
p-Isopropyltoluene	0.0200		20.0	16.0		ug/L		80	40 - 140
Methylene Chloride	0.340		20.0	17.2		ug/L		84	45 - 145
Methyl tert-Butyl Ether	0.0100		20.0	17.9	CIN	ug/L		90	40 - 135
Naphthalene	0.0300		20.0	17.3		ug/L		86	40 - 135
n-Propylbenzene	0.0100		20.0	16.2		ug/L		81	45 - 140
Styrene	<0.100		20.0	16.6		ug/L		83	40 - 135
1,1,1,2-Tetrachloroethane	<0.210		20.0	16.0	CIN	ug/L		80	50 - 130
1,1,2,2-Tetrachloroethane	<0.100		20.0	18.2	L	ug/L		91	55 - 140
Tetrachloroethene	0.590		20.0	16.0		ug/L		77	40 - 135
Toluene	0.0100		20.0	17.3		ug/L		87	45 - 135
1,2,3-Trichlorobenzene	0.0400		20.0	16.8		ug/L		84	50 - 140
1,2,4-Trichlorobenzene	<0.160		20.0	16.2		ug/L		81	40 - 135
1,1,1-Trichloroethane	<0.120		20.0	15.9		ug/L		80	40 - 125
1,1,2-Trichloroethane	<0.120		20.0	17.3		ug/L		87	60 - 130
Trichloroethene	0.360		20.0	16.2		ug/L		79	50 - 130
Trichlorofluoromethane	<0.170		20.0	17.0		ug/L		85	40 - 145
1,2,3-Trichloropropane	0.0500		20.0	17.1		ug/L		85	55 - 150
1,2,4-Trimethylbenzene	0.0200		20.0	15.7		ug/L		78	45 - 140
1,3,5-Trimethylbenzene	<0.200		20.0	16.5		ug/L		82	45 - 140
Vinyl chloride	<0.100		20.0	15.8		ug/L		79	30 - 135
Xylenes, total	<0.130		60.0	51.0		ug/L		85	40 - 135

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*105*		*75 - 120*
Toluene-d8	*102*		*80 - 120*
4-Bromofluorobenzene	*97*		*80 - 120*

Lab Sample ID: 12E0527-MSD1
Matrix: Water - NonPotable
Analysis Batch: 12E0527

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 12E0527_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	1.24		20.0	20.4	L	ug/L		96	45 - 150	3	35
Benzene	<0.110		20.0	16.8		ug/L		84	50 - 130	0.6	20
Bromobenzene	0.0300		20.0	15.4		ug/L		77	60 - 135	9	15
Bromochloromethane	<0.120		20.0	17.8		ug/L		89	55 - 145	10	25
Bromodichloromethane	0.0200		20.0	15.7		ug/L		79	50 - 130	5	15
Bromoform	<0.140		20.0	13.8	CIN	ug/L		69	30 - 125	3	25
Bromomethane	0.110		20.0	15.8		ug/L		79	30 - 130	3	35
2-Butanone (MEK)	0.420		20.0	19.1		ug/L		93	45 - 140	12	35
n-Butylbenzene	0.0100		20.0	15.1		ug/L		75	40 - 135	6	20
sec-Butylbenzene	0.0200		20.0	15.2		ug/L		76	40 - 135	8	20
tert-Butylbenzene	<0.120		20.0	15.2		ug/L		76	40 - 135	4	20
Carbon disulfide	0.0600		20.0	16.0	CIN	ug/L		80	30 - 130	3	30

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0527-MSD1
Matrix: Water - NonPotable
Analysis Batch: 12E0527

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 12E0527_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon Tetrachloride	<0.240		20.0	14.4		ug/L		72	35 - 130	5	20
Chlorobenzene	<0.190		20.0	16.8		ug/L		84	60 - 130	6	15
Chlorodibromomethane	0.0300		20.0	14.7	CIN	ug/L		73	35 - 130	4	20
Chloroethane	0.0400		20.0	17.4		ug/L		87	40 - 135	0.9	20
Chloroform	<0.280		20.0	16.7		ug/L		83	55 - 125	2	15
Chloromethane	0.0100		20.0	15.1		ug/L		75	25 - 125	3	25
2-Chlorotoluene	0.0100		20.0	15.9		ug/L		79	55 - 140	4	20
4-Chlorotoluene	0.0100		20.0	15.9		ug/L		79	50 - 140	3	20
1,2-Dibromo-3-chloropropane	<0.120		20.0	15.8		ug/L		79	35 - 130	14	30
1,2-Dibromoethane (EDB)	<0.130		20.0	18.0		ug/L		90	55 - 140	3	20
Dibromomethane	0.0300		20.0	17.1		ug/L		86	60 - 135	3	15
1,2-Dichlorobenzene	0.0200		20.0	15.9		ug/L		79	55 - 140	4	20
1,3-Dichlorobenzene	0.0500		20.0	15.3		ug/L		76	55 - 135	2	15
1,4-Dichlorobenzene	0.0300		20.0	15.0		ug/L		75	55 - 140	7	15
Dichlorodifluoromethane	<0.200		20.0	12.2		ug/L		61	15 - 130	1	25
1,1-Dichloroethane	<0.210		20.0	17.0		ug/L		85	50 - 130	2	25
1,2-Dichloroethane	<0.180		20.0	18.2		ug/L		91	55 - 140	1	15
1,1-Dichloroethene	0.0700		20.0	15.1		ug/L		75	35 - 135	2	30
cis-1,2-Dichloroethene	0.0100		20.0	17.1		ug/L		86	45 - 135	4	20
trans-1,2-Dichloroethene	0.0400		20.0	17.5		ug/L		87	45 - 145	2	35
1,2-Dichloropropane	<0.870		20.0	16.5		ug/L		82	55 - 130	4	15
1,3-Dichloropropane	0.0100		20.0	17.6		ug/L		88	60 - 135	3	15
2,2-Dichloropropane	0.0200		20.0	15.1		ug/L		76	20 - 120	7	35
1,1-Dichloropropene	<0.150		20.0	18.0		ug/L		90	40 - 140	3	20
cis-1,3-Dichloropropene	<0.150		20.0	15.2		ug/L		76	25 - 120	6	20
trans-1,3-Dichloropropene	<0.220		20.0	14.4	CIN	ug/L		72	25 - 120	3	20
Ethylbenzene	0.0200		20.0	16.3		ug/L		82	45 - 135	4	20
Hexachlorobutadiene	<0.200		20.0	13.9		ug/L		70	40 - 135	12	30
Hexane	0.0800		20.0	14.1		ug/L		70	25 - 135	2	35
Isopropylbenzene	0.0100		20.0	15.7		ug/L		78	45 - 125	2	15
p-Isopropyltoluene	0.0200		20.0	15.2		ug/L		76	40 - 140	6	20
Methylene Chloride	0.340		20.0	18.2		ug/L		89	45 - 145	6	30
Methyl tert-Butyl Ether	0.0100		20.0	19.5	CIN	ug/L		98	40 - 135	8	25
Naphthalene	0.0300		20.0	17.8		ug/L		89	40 - 135	3	20
n-Propylbenzene	0.0100		20.0	15.6		ug/L		78	45 - 140	3	20
Styrene	<0.100		20.0	15.9		ug/L		79	40 - 135	5	20
1,1,1,2-Tetrachloroethane	<0.210		20.0	16.0	CIN	ug/L		80	50 - 130	0.2	20
1,1,2,2-Tetrachloroethane	<0.100		20.0	19.4	L	ug/L		97	55 - 140	6	20
Tetrachloroethene	0.590		20.0	15.8		ug/L		76	40 - 135	0.8	20
Toluene	0.0100		20.0	16.8		ug/L		84	45 - 135	3	20
1,2,3-Trichlorobenzene	0.0400		20.0	16.2		ug/L		81	50 - 140	4	25
1,2,4-Trichlorobenzene	<0.160		20.0	15.2		ug/L		76	40 - 135	7	25
1,1,1-Trichloroethane	<0.120		20.0	15.2		ug/L		76	40 - 125	4	20
1,1,2-Trichloroethane	<0.120		20.0	17.2		ug/L		86	60 - 130	0.8	15
Trichloroethene	0.360		20.0	16.1		ug/L		79	50 - 130	0.7	20
Trichlorofluoromethane	<0.170		20.0	16.0		ug/L		80	40 - 145	6	25
1,2,3-Trichloropropane	0.0500		20.0	17.3		ug/L		86	55 - 150	1	20
1,2,4-Trimethylbenzene	0.0200		20.0	14.9		ug/L		74	45 - 140	5	20
1,3,5-Trimethylbenzene	<0.200		20.0	15.9		ug/L		80	45 - 140	4	20
Vinyl chloride	<0.100		20.0	16.1		ug/L		80	30 - 135	2	20

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0527-MSD1 | **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water - NonPotable | **Prep Type: Total**
Analysis Batch: 12E0527 | **Prep Batch: 12E0527_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, total	<0.130		60.0	48.4		ug/L		81	40 - 135	5	20

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Dibromofluoromethane	*110*		*75 - 120*
Toluene-d8	*101*		*80 - 120*
4-Bromofluorobenzene	*99*		*80 - 120*

Lab Sample ID: 12E0709-BLK1 | **Client Sample ID: Method Blank**
Matrix: Solid/Soil | **Prep Type: Total**
Analysis Batch: 12E0709 | **Prep Batch: 12E0709_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Benzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Bromobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Bromochloromethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Bromodichloromethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Bromoform	<500		500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Bromomethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
2-Butanone (MEK)	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
n-Butylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
sec-Butylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
tert-Butylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Carbon disulfide	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Carbon Tetrachloride	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Chlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Chlorodibromomethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Chloroethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Chloroform	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Chloromethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
2-Chlorotoluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
4-Chlorotoluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2-Dibromo-3-chloropropane	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2-Dibromoethane (EDB)	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Dibromomethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2-Dichlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,3-Dichlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,4-Dichlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Dichlorodifluoromethane	<750		750		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1-Dichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2-Dichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1-Dichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
cis-1,2-Dichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
trans-1,2-Dichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2-Dichloropropane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,3-Dichloropropane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
2,2-Dichloropropane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1-Dichloropropene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
cis-1,3-Dichloropropene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0709-BLK1
Matrix: Solid/Soil
Analysis Batch: 12E0709

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0709_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Ethylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Hexachlorobutadiene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Hexane	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Isopropylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
p-Isopropyltoluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Methylene Chloride	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Methyl tert-Butyl Ether	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Naphthalene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
n-Propylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Styrene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1,1,2-Tetrachloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1,2,2-Tetrachloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Tetrachloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Toluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2,3-Trichlorobenzene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2,4-Trichlorobenzene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1,1-Trichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,1,2-Trichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Trichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Trichlorofluoromethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2,3-Trichloropropane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,2,4-Trimethylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
1,3,5-Trimethylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Vinyl chloride	<750		750		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0
Xylenes, total	<750		750		ug/kg wet		05/12/12 00:00	05/12/12 06:52	50.0

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*75 - 125*	*05/12/12 00:00*	*05/12/12 06:52*	*50.0*
Toluene-d8	*98*		*80 - 120*	*05/12/12 00:00*	*05/12/12 06:52*	*50.0*
4-Bromofluorobenzene	*97*		*80 - 120*	*05/12/12 00:00*	*05/12/12 06:52*	*50.0*

Lab Sample ID: 12E0709-BS1
Matrix: Solid/Soil
Analysis Batch: 12E0709

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0709_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	967	1150		ug/kg wet		119	65 - 150
Benzene	967	1080		ug/kg wet		111	55 - 135
Bromobenzene	967	1080		ug/kg wet		112	65 - 125
Bromochloromethane	967	1090		ug/kg wet		112	65 - 130
Bromodichloromethane	967	999		ug/kg wet		103	65 - 130
Bromoform	967	938		ug/kg wet		97	50 - 135
Bromomethane	967	988		ug/kg wet		102	45 - 135
2-Butanone (MEK)	967	1020		ug/kg wet		105	50 - 145
n-Butylbenzene	967	1090		ug/kg wet		113	55 - 130
sec-Butylbenzene	967	1110		ug/kg wet		114	60 - 125
tert-Butylbenzene	967	1100		ug/kg wet		114	55 - 125
Carbon disulfide	967	950		ug/kg wet		98	40 - 135

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0709-BS1
Matrix: Solid/Soil
Analysis Batch: 12E0709

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0709_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon Tetrachloride	967	1090		ug/kg wet		112	55 - 130
Chlorobenzene	967	1100		ug/kg wet		114	60 - 120
Chlorodibromomethane	967	1010		ug/kg wet		105	55 - 130
Chloroethane	967	638		ug/kg wet		66	50 - 145
Chloroform	967	1040		ug/kg wet		108	65 - 130
Chloromethane	967	891		ug/kg wet		92	40 - 135
2-Chlorotoluene	967	1070		ug/kg wet		110	60 - 125
4-Chlorotoluene	967	1050		ug/kg wet		109	60 - 125
1,2-Dibromo-3-chloropropane	967	856		ug/kg wet		88	50 - 140
1,2-Dibromoethane (EDB)	967	1050		ug/kg wet		109	55 - 140
Dibromomethane	967	999		ug/kg wet		103	65 - 135
1,2-Dichlorobenzene	967	1100		ug/kg wet		113	65 - 120
1,3-Dichlorobenzene	967	1060		ug/kg wet		110	60 - 125
1,4-Dichlorobenzene	967	1070		ug/kg wet		111	60 - 125
Dichlorodifluoromethane	967	640		ug/kg wet		66	40 - 135
1,1-Dichloroethane	967	1010		ug/kg wet		105	55 - 135
1,2-Dichloroethane	967	1060		ug/kg wet		109	60 - 140
1,1-Dichloroethene	967	939		ug/kg wet		97	50 - 145
cis-1,2-Dichloroethene	967	1140		ug/kg wet		118	60 - 135
trans-1,2-Dichloroethene	967	1010		ug/kg wet		105	55 - 135
1,2-Dichloropropane	967	1060		ug/kg wet		109	55 - 130
1,3-Dichloropropane	967	1060		ug/kg wet		110	55 - 140
2,2-Dichloropropane	967	925		ug/kg wet		96	40 - 135
1,1-Dichloropropene	967	1070		ug/kg wet		111	55 - 130
cis-1,3-Dichloropropene	967	1050		ug/kg wet		109	50 - 115
trans-1,3-Dichloropropene	967	983		ug/kg wet		102	55 - 130
Ethylbenzene	967	1100		ug/kg wet		114	60 - 125
Hexachlorobutadiene	967	1080		ug/kg wet		112	40 - 135
Hexane	967	780		ug/kg wet		81	45 - 140
Isopropylbenzene	967	1100		ug/kg wet		114	60 - 125
p-Isopropyltoluene	967	1090		ug/kg wet		113	60 - 120
Methylene Chloride	967	1060		ug/kg wet		110	55 - 145
Methyl tert-Butyl Ether	967	1020		ug/kg wet		106	55 - 130
Naphthalene	967	1010		ug/kg wet		105	50 - 130
n-Propylbenzene	967	1100		ug/kg wet		114	50 - 125
Styrene	967	1080		ug/kg wet		112	60 - 125
1,1,1,2-Tetrachloroethane	967	1090		ug/kg wet		112	65 - 125
1,1,2,2-Tetrachloroethane	967	1000		ug/kg wet		104	60 - 125
Tetrachloroethene	967	1100		ug/kg wet		114	55 - 125
Toluene	967	1080		ug/kg wet		112	60 - 130
1,2,3-Trichlorobenzene	967	1060		ug/kg wet		109	50 - 130
1,2,4-Trichlorobenzene	967	1030		ug/kg wet		106	45 - 135
1,1,1-Trichloroethane	967	1080		ug/kg wet		112	60 - 125
1,1,2-Trichloroethane	967	1070		ug/kg wet		110	55 - 135
Trichloroethene	967	995		ug/kg wet		103	60 - 130
Trichlorofluoromethane	967	562		ug/kg wet		58	50 - 145
1,2,3-Trichloropropane	967	1020		ug/kg wet		105	50 - 145
1,2,4-Trimethylbenzene	967	1010		ug/kg wet		104	55 - 125
1,3,5-Trimethylbenzene	967	1060		ug/kg wet		110	50 - 130
Vinyl chloride	967	1060		ug/kg wet		110	45 - 140

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0709-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0709 — **Prep Batch: 12E0709_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Xylenes, total			2900	3250		ug/kg wet		112	50 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*100*		*75 - 125*
Toluene-d8	*100*		*80 - 120*
4-Bromofluorobenzene	*100*		*80 - 120*

Lab Sample ID: 12E0709-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0709 — **Prep Batch: 12E0709_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone			983	1090		ug/kg wet		111	65 - 150	6	40
Benzene			983	970		ug/kg wet		99	55 - 135	10	25
Bromobenzene			983	961		ug/kg wet		98	65 - 125	12	35
Bromochloromethane			983	963		ug/kg wet		98	65 - 130	12	35
Bromodichloromethane			983	891		ug/kg wet		91	65 - 130	11	30
Bromoform			983	775		ug/kg wet		79	50 - 135	19	40
Bromomethane			983	789		ug/kg wet		80	45 - 135	22	40
2-Butanone (MEK)			983	896		ug/kg wet		91	50 - 145	13	40
n-Butylbenzene			983	950		ug/kg wet		97	55 - 130	14	30
sec-Butylbenzene			983	972		ug/kg wet		99	60 - 125	13	30
tert-Butylbenzene			983	968		ug/kg wet		99	55 - 125	13	25
Carbon disulfide			983	871		ug/kg wet		89	40 - 135	9	40
Carbon Tetrachloride			983	959		ug/kg wet		98	55 - 130	12	30
Chlorobenzene			983	972		ug/kg wet		99	60 - 120	12	30
Chlorodibromomethane			983	885		ug/kg wet		90	55 - 130	13	40
Chloroethane			983	567		ug/kg wet		58	50 - 145	12	40
Chloroform			983	914		ug/kg wet		93	65 - 130	13	30
Chloromethane			983	759		ug/kg wet		77	40 - 135	16	40
2-Chlorotoluene			983	947		ug/kg wet		96	60 - 125	12	35
4-Chlorotoluene			983	930		ug/kg wet		95	60 - 125	12	35
1,2-Dibromo-3-chloropropane			983	743		ug/kg wet		76	50 - 140	14	35
1,2-Dibromoethane (EDB)			983	916		ug/kg wet		93	55 - 140	14	30
Dibromomethane			983	867		ug/kg wet		88	65 - 135	14	30
1,2-Dichlorobenzene			983	940		ug/kg wet		96	65 - 120	15	30
1,3-Dichlorobenzene			983	924		ug/kg wet		94	60 - 125	14	30
1,4-Dichlorobenzene			983	926		ug/kg wet		94	60 - 125	15	30
Dichlorodifluoromethane			983	581		ug/kg wet		59	40 - 135	10	35
1,1-Dichloroethane			983	926		ug/kg wet		94	55 - 135	9	40
1,2-Dichloroethane			983	921		ug/kg wet		94	60 - 140	14	30
1,1-Dichloroethene			983	829		ug/kg wet		84	50 - 145	12	40
cis-1,2-Dichloroethene			983	943		ug/kg wet		96	60 - 135	19	40
trans-1,2-Dichloroethene			983	916		ug/kg wet		93	55 - 135	10	40
1,2-Dichloropropane			983	922		ug/kg wet		94	55 - 130	14	30
1,3-Dichloropropane			983	936		ug/kg wet		95	55 - 140	12	30
2,2-Dichloropropane			983	779		ug/kg wet		79	40 - 135	17	45
1,1-Dichloropropene			983	953		ug/kg wet		97	55 - 130	12	30
cis-1,3-Dichloropropene			983	907		ug/kg wet		92	50 - 115	15	35

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0709-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0709 — **Prep Batch: 12E0709_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	983	867		ug/kg wet		88	55 - 130	13	30
Ethylbenzene	983	980		ug/kg wet		100	60 - 125	12	30
Hexachlorobutadiene	983	903		ug/kg wet		92	40 - 135	18	35
Hexane	983	783		ug/kg wet		80	45 - 140	0.4	35
Isopropylbenzene	983	982		ug/kg wet		100	60 - 125	11	35
p-Isopropyltoluene	983	962		ug/kg wet		98	60 - 120	12	30
Methylene Chloride	983	980		ug/kg wet		100	55 - 145	8	40
Methyl tert-Butyl Ether	983	914		ug/kg wet		93	55 - 130	11	30
Naphthalene	983	858		ug/kg wet		87	50 - 130	17	30
n-Propylbenzene	983	969		ug/kg wet		99	50 - 125	12	35
Styrene	983	954		ug/kg wet		97	60 - 125	13	35
1,1,1,2-Tetrachloroethane	983	930		ug/kg wet		95	65 - 125	15	30
1,1,2,2-Tetrachloroethane	983	862		ug/kg wet		88	60 - 125	15	35
Tetrachloroethene	983	960		ug/kg wet		98	55 - 125	14	40
Toluene	983	964		ug/kg wet		98	60 - 130	12	35
1,2,3-Trichlorobenzene	983	887		ug/kg wet		90	50 - 130	18	35
1,2,4-Trichlorobenzene	983	874		ug/kg wet		89	45 - 135	16	35
1,1,1-Trichloroethane	983	972		ug/kg wet		99	60 - 125	10	30
1,1,2-Trichloroethane	983	941		ug/kg wet		96	55 - 135	12	30
Trichloroethene	983	894		ug/kg wet		91	60 - 130	11	30
Trichlorofluoromethane	983	569		ug/kg wet		58	50 - 145	1	40
1,2,3-Trichloropropane	983	868		ug/kg wet		88	50 - 145	16	35
1,2,4-Trimethylbenzene	983	891		ug/kg wet		91	55 - 125	12	35
1,3,5-Trimethylbenzene	983	937		ug/kg wet		95	50 - 130	12	35
Vinyl chloride	983	878		ug/kg wet		89	45 - 140	19	40
Xylenes, total	2950	2880		ug/kg wet		98	50 - 130	12	30

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*100*		*75 - 125*
Toluene-d8	*100*		*80 - 120*
4-Bromofluorobenzene	*99*		*80 - 120*

Lab Sample ID: 12E0713-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0713 — **Prep Batch: 12E0713_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Benzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Bromobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Bromochloromethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Bromodichloromethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Bromoform	<500		500		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Bromomethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
2-Butanone (MEK)	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
n-Butylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
sec-Butylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
tert-Butylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Carbon disulfide	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0713-BLK1
Matrix: Solid/Soil
Analysis Batch: 12E0713

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0713_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Tetrachloride	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Chlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Chlorodibromomethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Chloroethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Chloroform	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Chloromethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
2-Chlorotoluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
4-Chlorotoluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,2-Dibromo-3-chloropropane	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,2-Dibromoethane (EDB)	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Dibromomethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,2-Dichlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,3-Dichlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,4-Dichlorobenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Dichlorodifluoromethane	<750		750		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,1-Dichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,2-Dichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,1-Dichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
cis-1,2-Dichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
trans-1,2-Dichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,2-Dichloropropane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,3-Dichloropropane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
2,2-Dichloropropane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,1-Dichloropropene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
cis-1,3-Dichloropropene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
trans-1,3-Dichloropropene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Ethylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Hexachlorobutadiene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Hexane	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Isopropylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
p-Isopropyltoluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Methylene Chloride	<2500		2500		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Methyl tert-Butyl Ether	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Naphthalene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
n-Propylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Styrene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,1,1,2-Tetrachloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,1,2,2-Tetrachloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Tetrachloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Toluene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,2,3-Trichlorobenzene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,2,4-Trichlorobenzene	<1250		1250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,1,1-Trichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,1,2-Trichloroethane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Trichloroethene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Trichlorofluoromethane	<1000		1000		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,2,3-Trichloropropane	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,2,4-Trimethylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
1,3,5-Trimethylbenzene	<250		250		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0
Vinyl chloride	<750		750		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0713-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0713 — **Prep Batch: 12E0713_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, total	<750		750		ug/kg wet		05/12/12 00:00	05/12/12 17:15	50.0

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99*		*75 - 125*	*05/12/12 00:00*	*05/12/12 17:15*	*50.0*
Toluene-d8	*99*		*80 - 120*	*05/12/12 00:00*	*05/12/12 17:15*	*50.0*
4-Bromofluorobenzene	*95*		*80 - 120*	*05/12/12 00:00*	*05/12/12 17:15*	*50.0*

Lab Sample ID: 12E0713-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0713 — **Prep Batch: 12E0713_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	913	1080		ug/kg wet		119	65 - 150
Benzene	913	1010		ug/kg wet		110	55 - 135
Bromobenzene	913	1010		ug/kg wet		110	65 - 125
Bromochloromethane	913	1020		ug/kg wet		112	65 - 130
Bromodichloromethane	913	929		ug/kg wet		102	65 - 130
Bromoform	913	826		ug/kg wet		90	50 - 135
Bromomethane	913	889		ug/kg wet		97	45 - 135
2-Butanone (MEK)	913	966		ug/kg wet		106	50 - 145
n-Butylbenzene	913	1000		ug/kg wet		110	55 - 130
sec-Butylbenzene	913	1030		ug/kg wet		112	60 - 125
tert-Butylbenzene	913	1040		ug/kg wet		114	55 - 125
Carbon disulfide	913	899		ug/kg wet		98	40 - 135
Carbon Tetrachloride	913	979		ug/kg wet		107	55 - 130
Chlorobenzene	913	1020		ug/kg wet		111	60 - 120
Chlorodibromomethane	913	934		ug/kg wet		102	55 - 130
Chloroethane	913	600		ug/kg wet		66	50 - 145
Chloroform	913	966		ug/kg wet		106	65 - 130
Chloromethane	913	829		ug/kg wet		91	40 - 135
2-Chlorotoluene	913	995		ug/kg wet		109	60 - 125
4-Chlorotoluene	913	972		ug/kg wet		106	60 - 125
1,2-Dibromo-3-chloropropane	913	810		ug/kg wet		89	50 - 140
1,2-Dibromoethane (EDB)	913	953		ug/kg wet		104	55 - 140
Dibromomethane	913	932		ug/kg wet		102	65 - 135
1,2-Dichlorobenzene	913	1030		ug/kg wet		113	65 - 120
1,3-Dichlorobenzene	913	1020		ug/kg wet		111	60 - 125
1,4-Dichlorobenzene	913	1010		ug/kg wet		111	60 - 125
Dichlorodifluoromethane	913	562		ug/kg wet		62	40 - 135
1,1-Dichloroethane	913	943		ug/kg wet		103	55 - 135
1,2-Dichloroethane	913	994		ug/kg wet		109	60 - 140
1,1-Dichloroethene	913	860		ug/kg wet		94	50 - 145
cis-1,2-Dichloroethene	913	1030		ug/kg wet		113	60 - 135
trans-1,2-Dichloroethene	913	940		ug/kg wet		103	55 - 135
1,2-Dichloropropane	913	977		ug/kg wet		107	55 - 130
1,3-Dichloropropane	913	1020		ug/kg wet		111	55 - 140
2,2-Dichloropropane	913	796		ug/kg wet		87	40 - 135
1,1-Dichloropropene	913	990		ug/kg wet		108	55 - 130
cis-1,3-Dichloropropene	913	986		ug/kg wet		108	50 - 115

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0713-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0713 — **Prep Batch: 12E0713_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	913	916		ug/kg wet		100	55 - 130
Ethylbenzene	913	1020		ug/kg wet		112	60 - 125
Hexachlorobutadiene	913	992		ug/kg wet		109	40 - 135
Hexane	913	685		ug/kg wet		75	45 - 140
Isopropylbenzene	913	1020		ug/kg wet		112	60 - 125
p-Isopropyltoluene	913	1030		ug/kg wet		112	60 - 120
Methylene Chloride	913	1160		ug/kg wet		127	55 - 145
Methyl tert-Butyl Ether	913	962		ug/kg wet		105	55 - 130
Naphthalene	913	938		ug/kg wet		103	50 - 130
n-Propylbenzene	913	1010		ug/kg wet		111	50 - 125
Styrene	913	1010		ug/kg wet		110	60 - 125
1,1,1,2-Tetrachloroethane	913	1000		ug/kg wet		110	65 - 125
1,1,2,2-Tetrachloroethane	913	906		ug/kg wet		99	60 - 125
Tetrachloroethene	913	996		ug/kg wet		109	55 - 125
Toluene	913	1000		ug/kg wet		109	60 - 130
1,2,3-Trichlorobenzene	913	981		ug/kg wet		107	50 - 130
1,2,4-Trichlorobenzene	913	967		ug/kg wet		106	45 - 135
1,1,1-Trichloroethane	913	1000		ug/kg wet		110	60 - 125
1,1,2-Trichloroethane	913	1000		ug/kg wet		110	55 - 135
Trichloroethene	913	931		ug/kg wet		102	60 - 130
Trichlorofluoromethane	913	509		ug/kg wet		56	50 - 145
1,2,3-Trichloropropane	913	954		ug/kg wet		104	50 - 145
1,2,4-Trimethylbenzene	913	934		ug/kg wet		102	55 - 125
1,3,5-Trimethylbenzene	913	983		ug/kg wet		108	50 - 130
Vinyl chloride	913	944		ug/kg wet		103	45 - 140
Xylenes, total	2740	3030		ug/kg wet		111	50 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*101*		*75 - 125*
Toluene-d8	*99*		*80 - 120*
4-Bromofluorobenzene	*99*		*80 - 120*

Lab Sample ID: 12E0713-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0713 — **Prep Batch: 12E0713_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	944	1060		ug/kg wet		112	65 - 150	2	40
Benzene	944	1100		ug/kg wet		116	55 - 135	9	25
Bromobenzene	944	1070		ug/kg wet		114	65 - 125	6	35
Bromochloromethane	944	1080		ug/kg wet		114	65 - 130	5	35
Bromodichloromethane	944	1000		ug/kg wet		106	65 - 130	7	30
Bromoform	944	820		ug/kg wet		87	50 - 135	0.6	40
Bromomethane	944	870		ug/kg wet		92	45 - 135	2	40
2-Butanone (MEK)	944	962		ug/kg wet		102	50 - 145	0.4	40
n-Butylbenzene	944	1100		ug/kg wet		117	55 - 130	10	30
sec-Butylbenzene	944	1130		ug/kg wet		120	60 - 125	10	30
tert-Butylbenzene	944	1130		ug/kg wet		120	55 - 125	8	25
Carbon disulfide	944	983		ug/kg wet		104	40 - 135	9	40

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0713-BSD1
Matrix: Solid/Soil
Analysis Batch: 12E0713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E0713_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon Tetrachloride	944	1070		ug/kg wet		113	55 - 130	9	30
Chlorobenzene	944	1120		ug/kg wet		119	60 - 120	10	30
Chlorodibromomethane	944	964		ug/kg wet		102	55 - 130	3	40
Chloroethane	944	645		ug/kg wet		68	50 - 145	7	40
Chloroform	944	1040		ug/kg wet		110	65 - 130	8	30
Chloromethane	944	842		ug/kg wet		89	40 - 135	2	40
2-Chlorotoluene	944	1100		ug/kg wet		116	60 - 125	10	35
4-Chlorotoluene	944	1050		ug/kg wet		111	60 - 125	8	35
1,2-Dibromo-3-chloropropane	944	815		ug/kg wet		86	50 - 140	0.6	35
1,2-Dibromoethane (EDB)	944	1040		ug/kg wet		110	55 - 140	9	30
Dibromomethane	944	964		ug/kg wet		102	65 - 135	3	30
1,2-Dichlorobenzene	944	1090		ug/kg wet		116	65 - 120	5	30
1,3-Dichlorobenzene	944	1090		ug/kg wet		116	60 - 125	7	30
1,4-Dichlorobenzene	944	1080		ug/kg wet		114	60 - 125	7	30
Dichlorodifluoromethane	944	587		ug/kg wet		62	40 - 135	4	35
1,1-Dichloroethane	944	1030		ug/kg wet		109	55 - 135	9	40
1,2-Dichloroethane	944	1040		ug/kg wet		110	60 - 140	5	30
1,1-Dichloroethene	944	958		ug/kg wet		102	50 - 145	11	40
cis-1,2-Dichloroethene	944	1140		ug/kg wet		121	60 - 135	10	40
trans-1,2-Dichloroethene	944	1020		ug/kg wet		108	55 - 135	8	40
1,2-Dichloropropane	944	1050		ug/kg wet		111	55 - 130	7	30
1,3-Dichloropropane	944	1070		ug/kg wet		113	55 - 140	5	30
2,2-Dichloropropane	944	874		ug/kg wet		93	40 - 135	9	45
1,1-Dichloropropene	944	1080		ug/kg wet		114	55 - 130	8	30
cis-1,3-Dichloropropene	944	1020		ug/kg wet		108	50 - 115	3	35
trans-1,3-Dichloropropene	944	969		ug/kg wet		103	55 - 130	6	30
Ethylbenzene	944	1130		ug/kg wet		119	60 - 125	10	30
Hexachlorobutadiene	944	1040		ug/kg wet		110	40 - 135	5	35
Hexane	944	744		ug/kg wet		79	45 - 140	8	35
Isopropylbenzene	944	1130		ug/kg wet		120	60 - 125	10	35
p-Isopropyltoluene	944	1120		ug/kg wet		119	60 - 120	9	30
Methylene Chloride	944	1220		ug/kg wet		130	55 - 145	6	40
Methyl tert-Butyl Ether	944	1020		ug/kg wet		109	55 - 130	6	30
Naphthalene	944	960		ug/kg wet		102	50 - 130	2	30
n-Propylbenzene	944	1100		ug/kg wet		116	50 - 125	8	35
Styrene	944	1070		ug/kg wet		114	60 - 125	6	35
1,1,1,2-Tetrachloroethane	944	1060		ug/kg wet		113	65 - 125	6	30
1,1,2,2-Tetrachloroethane	944	922		ug/kg wet		98	60 - 125	2	35
Tetrachloroethene	944	1120		ug/kg wet		118	55 - 125	11	40
Toluene	944	1110		ug/kg wet		117	60 - 130	10	35
1,2,3-Trichlorobenzene	944	1030		ug/kg wet		109	50 - 130	5	35
1,2,4-Trichlorobenzene	944	1010		ug/kg wet		107	45 - 135	4	35
1,1,1-Trichloroethane	944	1080		ug/kg wet		114	60 - 125	7	30
1,1,2-Trichloroethane	944	1040		ug/kg wet		111	55 - 135	4	30
Trichloroethene	944	1010		ug/kg wet		107	60 - 130	8	30
Trichlorofluoromethane	944	615		ug/kg wet		65	50 - 145	19	40
1,2,3-Trichloropropane	944	961		ug/kg wet		102	50 - 145	0.7	35
1,2,4-Trimethylbenzene	944	1020		ug/kg wet		108	55 - 125	9	35
1,3,5-Trimethylbenzene	944	1070		ug/kg wet		114	50 - 130	9	35
Vinyl chloride	944	1020		ug/kg wet		108	45 - 140	8	40

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0713-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0713 — **Prep Batch: 12E0713_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, total			2830	3340		ug/kg wet		118	50 - 130	10	30

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*100*		*75 - 125*
Toluene-d8	*100*		*80 - 120*
4-Bromofluorobenzene	*99*		*80 - 120*

Lab Sample ID: 12E0839-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0839 — **Prep Batch: 12E0839_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2500		2500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Benzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Bromobenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Bromochloromethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Bromodichloromethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Bromoform	<500		500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Bromomethane	<1000		1000		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
2-Butanone (MEK)	<2500		2500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
n-Butylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
sec-Butylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
tert-Butylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Carbon disulfide	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Carbon Tetrachloride	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Chlorobenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Chlorodibromomethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Chloroethane	<1000		1000		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Chloroform	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Chloromethane	<1000		1000		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
2-Chlorotoluene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
4-Chlorotoluene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2-Dibromo-3-chloropropane	<2500		2500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2-Dibromoethane (EDB)	<2500		2500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Dibromomethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2-Dichlorobenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,3-Dichlorobenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,4-Dichlorobenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Dichlorodifluoromethane	<750		750		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1-Dichloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2-Dichloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1-Dichloroethene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
cis-1,2-Dichloroethene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
trans-1,2-Dichloroethene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2-Dichloropropane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,3-Dichloropropane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
2,2-Dichloropropane	<1000		1000		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1-Dichloropropene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
cis-1,3-Dichloropropene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0839-BLK1
Matrix: Solid/Soil
Analysis Batch: 12E0839

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0839_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Ethylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Hexachlorobutadiene	<1250		1250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Hexane	<1250		1250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Isopropylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
p-Isopropyltoluene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Methylene Chloride	<2500		2500		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Methyl tert-Butyl Ether	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Naphthalene	<1250		1250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
n-Propylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Styrene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1,1,2-Tetrachloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1,2,2-Tetrachloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Tetrachloroethene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Toluene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2,3-Trichlorobenzene	<1250		1250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2,4-Trichlorobenzene	<1250		1250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1,1-Trichloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,1,2-Trichloroethane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Trichloroethene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Trichlorofluoromethane	<1000		1000		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2,3-Trichloropropane	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,2,4-Trimethylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
1,3,5-Trimethylbenzene	<250		250		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Vinyl chloride	<750		750		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0
Xylenes, total	<750		750		ug/kg wet		05/15/12 00:00	05/15/12 15:24	50.0

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*98*		*75 - 125*	*05/15/12 00:00*	*05/15/12 15:24*	*50.0*
Toluene-d8	*100*		*80 - 120*	*05/15/12 00:00*	*05/15/12 15:24*	*50.0*
4-Bromofluorobenzene	*99*		*80 - 120*	*05/15/12 00:00*	*05/15/12 15:24*	*50.0*

Lab Sample ID: 12E0839-BS1
Matrix: Solid/Soil
Analysis Batch: 12E0839

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0839_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	961	1190		ug/kg wet		124	65 - 150
Benzene	961	1110		ug/kg wet		116	55 - 135
Bromobenzene	961	1100		ug/kg wet		115	65 - 125
Bromochloromethane	961	1160		ug/kg wet		120	65 - 130
Bromodichloromethane	961	1010		ug/kg wet		105	65 - 130
Bromoform	961	854		ug/kg wet		89	50 - 135
Bromomethane	961	672		ug/kg wet		70	45 - 135
2-Butanone (MEK)	961	1220		ug/kg wet		127	50 - 145
n-Butylbenzene	961	1130		ug/kg wet		117	55 - 130
sec-Butylbenzene	961	1110		ug/kg wet		116	60 - 125
tert-Butylbenzene	961	1100		ug/kg wet		115	55 - 125
Carbon disulfide	961	872		ug/kg wet		91	40 - 135

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0839-BS1
Matrix: Solid/Soil
Analysis Batch: 12E0839

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0839_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon Tetrachloride	961	1020		ug/kg wet		106	55 - 130
Chlorobenzene	961	1080		ug/kg wet		112	60 - 120
Chlorodibromomethane	961	1070		ug/kg wet		112	55 - 130
Chloroethane	961	737		ug/kg wet		77	50 - 145
Chloroform	961	1020		ug/kg wet		106	65 - 130
Chloromethane	961	976		ug/kg wet		102	40 - 135
2-Chlorotoluene	961	1120		ug/kg wet		116	60 - 125
4-Chlorotoluene	961	1100		ug/kg wet		115	60 - 125
1,2-Dibromo-3-chloropropane	961	1000		ug/kg wet		104	50 - 140
1,2-Dibromoethane (EDB)	961	1170		ug/kg wet		122	55 - 140
Dibromomethane	961	1110		ug/kg wet		116	65 - 135
1,2-Dichlorobenzene	961	1110		ug/kg wet		115	65 - 120
1,3-Dichlorobenzene	961	1090		ug/kg wet		113	60 - 125
1,4-Dichlorobenzene	961	1100		ug/kg wet		115	60 - 125
Dichlorodifluoromethane	961	1040		ug/kg wet		108	40 - 135
1,1-Dichloroethane	961	1040		ug/kg wet		108	55 - 135
1,2-Dichloroethane	961	1050		ug/kg wet		109	60 - 140
1,1-Dichloroethene	961	984		ug/kg wet		102	50 - 145
cis-1,2-Dichloroethene	961	1080		ug/kg wet		112	60 - 135
trans-1,2-Dichloroethene	961	1070		ug/kg wet		111	55 - 135
1,2-Dichloropropane	961	1080		ug/kg wet		112	55 - 130
1,3-Dichloropropane	961	1160		ug/kg wet		120	55 - 140
2,2-Dichloropropane	961	1120		ug/kg wet		117	40 - 135
1,1-Dichloropropene	961	1110		ug/kg wet		116	55 - 130
cis-1,3-Dichloropropene	961	1140		ug/kg wet		118	50 - 115
trans-1,3-Dichloropropene	961	1060		ug/kg wet		111	55 - 130
Ethylbenzene	961	1090		ug/kg wet		114	60 - 125
Hexachlorobutadiene	961	1210		ug/kg wet		126	40 - 135
Hexane	961	1030		ug/kg wet		108	45 - 140
Isopropylbenzene	961	1110		ug/kg wet		115	60 - 125
p-Isopropyltoluene	961	1080		ug/kg wet		113	60 - 120
Methylene Chloride	961	1090		ug/kg wet		114	55 - 145
Methyl tert-Butyl Ether	961	1200		ug/kg wet		125	55 - 130
Naphthalene	961	1160		ug/kg wet		121	50 - 130
n-Propylbenzene	961	1120		ug/kg wet		117	50 - 125
Styrene	961	1120		ug/kg wet		116	60 - 125
1,1,1,2-Tetrachloroethane	961	1080		ug/kg wet		113	65 - 125
1,1,2,2-Tetrachloroethane	961	1170		ug/kg wet		122	60 - 125
Tetrachloroethene	961	1060		ug/kg wet		110	55 - 125
Toluene	961	1100		ug/kg wet		114	60 - 130
1,2,3-Trichlorobenzene	961	1090		ug/kg wet		113	50 - 130
1,2,4-Trichlorobenzene	961	1060		ug/kg wet		110	45 - 135
1,1,1-Trichloroethane	961	1140		ug/kg wet		118	60 - 125
1,1,2-Trichloroethane	961	1170		ug/kg wet		122	55 - 135
Trichloroethene	961	1050		ug/kg wet		110	60 - 130
Trichlorofluoromethane	961	785		ug/kg wet		82	50 - 145
1,2,3-Trichloropropane	961	1200		ug/kg wet		125	50 - 145
1,2,4-Trimethylbenzene	961	1120		ug/kg wet		117	55 - 125
1,3,5-Trimethylbenzene	961	1100		ug/kg wet		114	50 - 130
Vinyl chloride	961	1110		ug/kg wet		115	45 - 140

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0839-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0839 — **Prep Batch: 12E0839_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Xylenes, total			2880	3340		ug/kg wet		116	50 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*96*		*75 - 125*
Toluene-d8	*98*		*80 - 120*
4-Bromofluorobenzene	*98*		*80 - 120*

Lab Sample ID: 12E0839-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0839 — **Prep Batch: 12E0839_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone			951	1200		ug/kg wet		127	65 - 150	1	40
Benzene			951	1010		ug/kg wet		107	55 - 135	9	25
Bromobenzene			951	1020		ug/kg wet		107	65 - 125	8	35
Bromochloromethane			951	1020		ug/kg wet		108	65 - 130	12	35
Bromodichloromethane			951	952		ug/kg wet		100	65 - 130	6	30
Bromoform			951	767		ug/kg wet		81	50 - 135	11	40
Bromomethane			951	716		ug/kg wet		75	45 - 135	6	40
2-Butanone (MEK)			951	1030		ug/kg wet		108	50 - 145	17	40
n-Butylbenzene			951	1070		ug/kg wet		112	55 - 130	6	30
sec-Butylbenzene			951	1030		ug/kg wet		109	60 - 125	8	30
tert-Butylbenzene			951	1040		ug/kg wet		110	55 - 125	6	25
Carbon disulfide			951	813		ug/kg wet		85	40 - 135	7	40
Carbon Tetrachloride			951	908		ug/kg wet		95	55 - 130	12	30
Chlorobenzene			951	1030		ug/kg wet		109	60 - 120	4	30
Chlorodibromomethane			951	951		ug/kg wet		100	55 - 130	12	40
Chloroethane			951	727		ug/kg wet		76	50 - 145	1	40
Chloroform			951	938		ug/kg wet		99	65 - 130	8	30
Chloromethane			951	966		ug/kg wet		102	40 - 135	1	40
2-Chlorotoluene			951	1050		ug/kg wet		111	60 - 125	6	35
4-Chlorotoluene			951	1060		ug/kg wet		111	60 - 125	4	35
1,2-Dibromo-3-chloropropane			951	879		ug/kg wet		92	50 - 140	13	35
1,2-Dibromoethane (EDB)			951	1040		ug/kg wet		110	55 - 140	12	30
Dibromomethane			951	1020		ug/kg wet		108	65 - 135	8	30
1,2-Dichlorobenzene			951	1040		ug/kg wet		109	65 - 120	7	30
1,3-Dichlorobenzene			951	1030		ug/kg wet		109	60 - 125	5	30
1,4-Dichlorobenzene			951	1030		ug/kg wet		109	60 - 125	7	30
Dichlorodifluoromethane			951	1010		ug/kg wet		107	40 - 135	3	35
1,1-Dichloroethane			951	887		ug/kg wet		93	55 - 135	16	40
1,2-Dichloroethane			951	968		ug/kg wet		102	60 - 140	8	30
1,1-Dichloroethene			951	851		ug/kg wet		89	50 - 145	14	40
cis-1,2-Dichloroethene			951	1000		ug/kg wet		105	60 - 135	7	40
trans-1,2-Dichloroethene			951	986		ug/kg wet		104	55 - 135	8	40
1,2-Dichloropropane			951	1010		ug/kg wet		107	55 - 130	6	30
1,3-Dichloropropane			951	1030		ug/kg wet		108	55 - 140	12	30
2,2-Dichloropropane			951	1020		ug/kg wet		108	40 - 135	9	45
1,1-Dichloropropene			951	1020		ug/kg wet		107	55 - 130	9	30
cis-1,3-Dichloropropene			951	1040		ug/kg wet		110	50 - 115	8	35

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0839-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0839 — **Prep Batch: 12E0839_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	951	970		ug/kg wet		102	55 - 130	9	30
Ethylbenzene	951	1020		ug/kg wet		108	60 - 125	7	30
Hexachlorobutadiene	951	1180		ug/kg wet		124	40 - 135	3	35
Hexane	951	924		ug/kg wet		97	45 - 140	11	35
Isopropylbenzene	951	1040		ug/kg wet		109	60 - 125	7	35
p-Isopropyltoluene	951	1040		ug/kg wet		109	60 - 120	4	30
Methylene Chloride	951	1030		ug/kg wet		108	55 - 145	6	40
Methyl tert-Butyl Ether	951	1080		ug/kg wet		114	55 - 130	11	30
Naphthalene	951	1100		ug/kg wet		115	50 - 130	6	30
n-Propylbenzene	951	1060		ug/kg wet		112	50 - 125	5	35
Styrene	951	1050		ug/kg wet		111	60 - 125	6	35
1,1,1,2-Tetrachloroethane	951	983		ug/kg wet		103	65 - 125	10	30
1,1,2,2-Tetrachloroethane	951	1030		ug/kg wet		109	60 - 125	13	35
Tetrachloroethene	951	994		ug/kg wet		104	55 - 125	7	40
Toluene	951	1030		ug/kg wet		108	60 - 130	7	35
1,2,3-Trichlorobenzene	951	1040		ug/kg wet		110	50 - 130	4	35
1,2,4-Trichlorobenzene	951	1010		ug/kg wet		106	45 - 135	5	35
1,1,1-Trichloroethane	951	1000		ug/kg wet		106	60 - 125	13	30
1,1,2-Trichloroethane	951	1040		ug/kg wet		109	55 - 135	12	30
Trichloroethene	951	992		ug/kg wet		104	60 - 130	6	30
Trichlorofluoromethane	951	943		ug/kg wet		99	50 - 145	18	40
1,2,3-Trichloropropane	951	971		ug/kg wet		102	50 - 145	21	35
1,2,4-Trimethylbenzene	951	1050		ug/kg wet		111	55 - 125	6	35
1,3,5-Trimethylbenzene	951	1040		ug/kg wet		109	50 - 130	5	35
Vinyl chloride	951	1090		ug/kg wet		115	45 - 140	0.9	40
Xylenes, total	2850	3130		ug/kg wet		110	50 - 130	6	30

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*97*		*75 - 125*
Toluene-d8	*100*		*80 - 120*
4-Bromofluorobenzene	*102*		*80 - 120*

Lab Sample ID: 12E0868-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0868 — **Prep Batch: 12E0868_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2500		2500		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Benzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Bromobenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Bromochloromethane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Bromodichloromethane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Bromoform	<500		500		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Bromomethane	<1000		1000		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
2-Butanone (MEK)	<2500		2500		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
n-Butylbenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
sec-Butylbenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
tert-Butylbenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Carbon disulfide	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0868-BLK1
Matrix: Solid/Soil
Analysis Batch: 12E0868

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0868_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Tetrachloride	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Chlorobenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Chlorodibromomethane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Chloroethane	<1000		1000		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Chloroform	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Chloromethane	<1000		1000		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
2-Chlorotoluene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
4-Chlorotoluene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,2-Dibromo-3-chloropropane	<2500		2500		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,2-Dibromoethane (EDB)	<2500		2500		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Dibromomethane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,2-Dichlorobenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,3-Dichlorobenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,4-Dichlorobenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Dichlorodifluoromethane	<750		750		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,1-Dichloroethane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,2-Dichloroethane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,1-Dichloroethene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
cis-1,2-Dichloroethene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
trans-1,2-Dichloroethene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,2-Dichloropropane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,3-Dichloropropane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
2,2-Dichloropropane	<1000		1000		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,1-Dichloropropene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
cis-1,3-Dichloropropene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
trans-1,3-Dichloropropene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Ethylbenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Hexachlorobutadiene	<1250		1250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Hexane	<1250		1250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Isopropylbenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
p-Isopropyltoluene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Methylene Chloride	<2500		2500		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Methyl tert-Butyl Ether	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Naphthalene	<1250		1250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
n-Propylbenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Styrene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,1,1,2-Tetrachloroethane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,1,2,2-Tetrachloroethane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Tetrachloroethene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Toluene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,2,3-Trichlorobenzene	<1250		1250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,2,4-Trichlorobenzene	<1250		1250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,1,1-Trichloroethane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,1,2-Trichloroethane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Trichloroethene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Trichlorofluoromethane	<1000		1000		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,2,3-Trichloropropane	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,2,4-Trimethylbenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
1,3,5-Trimethylbenzene	<250		250		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0
Vinyl chloride	<750		750		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0868-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0868 — **Prep Batch: 12E0868_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, total	<750		750		ug/kg wet		05/16/12 00:00	05/16/12 10:00	50.0

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*94*		*75 - 125*	*05/16/12 00:00*	*05/16/12 10:00*	*50.0*
Toluene-d8	*99*		*80 - 120*	*05/16/12 00:00*	*05/16/12 10:00*	*50.0*
4-Bromofluorobenzene	*95*		*80 - 120*	*05/16/12 00:00*	*05/16/12 10:00*	*50.0*

Lab Sample ID: 12E0868-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0868 — **Prep Batch: 12E0868_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	961	967		ug/kg wet		101	65 - 150
Benzene	961	881		ug/kg wet		92	55 - 135
Bromobenzene	961	916		ug/kg wet		95	65 - 125
Bromochloromethane	961	928		ug/kg wet		97	65 - 130
Bromodichloromethane	961	801		ug/kg wet		83	65 - 130
Bromoform	961	630		ug/kg wet		66	50 - 135
Bromomethane	961	637		ug/kg wet		66	45 - 135
2-Butanone (MEK)	961	777		ug/kg wet		81	50 - 145
n-Butylbenzene	961	950		ug/kg wet		99	55 - 130
sec-Butylbenzene	961	937		ug/kg wet		97	60 - 125
tert-Butylbenzene	961	944		ug/kg wet		98	55 - 125
Carbon disulfide	961	692		ug/kg wet		72	40 - 135
Carbon Tetrachloride	961	802		ug/kg wet		83	55 - 130
Chlorobenzene	961	889		ug/kg wet		92	60 - 120
Chlorodibromomethane	961	812		ug/kg wet		84	55 - 130
Chloroethane	961	623		ug/kg wet		65	50 - 145
Chloroform	961	847		ug/kg wet		88	65 - 130
Chloromethane	961	873		ug/kg wet		91	40 - 135
2-Chlorotoluene	961	943		ug/kg wet		98	60 - 125
4-Chlorotoluene	961	933		ug/kg wet		97	60 - 125
1,2-Dibromo-3-chloropropane	961	647		ug/kg wet		67	50 - 140
1,2-Dibromoethane (EDB)	961	860		ug/kg wet		89	55 - 140
Dibromomethane	961	872		ug/kg wet		91	65 - 135
1,2-Dichlorobenzene	961	914		ug/kg wet		95	65 - 120
1,3-Dichlorobenzene	961	895		ug/kg wet		93	60 - 125
1,4-Dichlorobenzene	961	903		ug/kg wet		94	60 - 125
Dichlorodifluoromethane	961	932		ug/kg wet		97	40 - 135
1,1-Dichloroethane	961	871		ug/kg wet		91	55 - 135
1,2-Dichloroethane	961	846		ug/kg wet		88	60 - 140
1,1-Dichloroethene	961	826		ug/kg wet		86	50 - 145
cis-1,2-Dichloroethene	961	874		ug/kg wet		91	60 - 135
trans-1,2-Dichloroethene	961	846		ug/kg wet		88	55 - 135
1,2-Dichloropropane	961	877		ug/kg wet		91	55 - 130
1,3-Dichloropropane	961	872		ug/kg wet		91	55 - 140
2,2-Dichloropropane	961	954		ug/kg wet		99	40 - 135
1,1-Dichloropropene	961	889		ug/kg wet		92	55 - 130
cis-1,3-Dichloropropene	961	888		ug/kg wet		92	50 - 115

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0868-BS1
Matrix: Solid/Soil
Analysis Batch: 12E0868

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0868_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	961	804		ug/kg wet		84	55 - 130
Ethylbenzene	961	895		ug/kg wet		93	60 - 125
Hexachlorobutadiene	961	979		ug/kg wet		102	40 - 135
Hexane	961	876		ug/kg wet		91	45 - 140
Isopropylbenzene	961	921		ug/kg wet		96	60 - 125
p-Isopropyltoluene	961	942		ug/kg wet		98	60 - 120
Methylene Chloride	961	898		ug/kg wet		93	55 - 145
Methyl tert-Butyl Ether	961	883		ug/kg wet		92	55 - 130
Naphthalene	961	789		ug/kg wet		82	50 - 130
n-Propylbenzene	961	921		ug/kg wet		96	50 - 125
Styrene	961	934		ug/kg wet		97	60 - 125
1,1,1,2-Tetrachloroethane	961	877		ug/kg wet		91	65 - 125
1,1,2,2-Tetrachloroethane	961	867		ug/kg wet		90	60 - 125
Tetrachloroethene	961	894		ug/kg wet		93	55 - 125
Toluene	961	899		ug/kg wet		94	60 - 130
1,2,3-Trichlorobenzene	961	815		ug/kg wet		85	50 - 130
1,2,4-Trichlorobenzene	961	853		ug/kg wet		89	45 - 135
1,1,1-Trichloroethane	961	883		ug/kg wet		92	60 - 125
1,1,2-Trichloroethane	961	904		ug/kg wet		94	55 - 135
Trichloroethene	961	865		ug/kg wet		90	60 - 130
Trichlorofluoromethane	961	908		ug/kg wet		94	50 - 145
1,2,3-Trichloropropane	961	777		ug/kg wet		81	50 - 145
1,2,4-Trimethylbenzene	961	943		ug/kg wet		98	55 - 125
1,3,5-Trimethylbenzene	961	920		ug/kg wet		96	50 - 130
Vinyl chloride	961	958		ug/kg wet		100	45 - 140
Xylenes, total	2880	2740		ug/kg wet		95	50 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*102*		*75 - 125*
Toluene-d8	*99*		*80 - 120*
4-Bromofluorobenzene	*99*		*80 - 120*

Lab Sample ID: 12E0868-BSD1
Matrix: Solid/Soil
Analysis Batch: 12E0868

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E0868_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	951	868		ug/kg wet		91	65 - 150	11	40
Benzene	951	829		ug/kg wet		87	55 - 135	6	25
Bromobenzene	951	880		ug/kg wet		92	65 - 125	4	35
Bromochloromethane	951	853		ug/kg wet		90	65 - 130	8	35
Bromodichloromethane	951	771		ug/kg wet		81	65 - 130	4	30
Bromoform	951	604		ug/kg wet		63	50 - 135	4	40
Bromomethane	951	624		ug/kg wet		66	45 - 135	2	40
2-Butanone (MEK)	951	838		ug/kg wet		88	50 - 145	7	40
n-Butylbenzene	951	899		ug/kg wet		95	55 - 130	5	30
sec-Butylbenzene	951	879		ug/kg wet		92	60 - 125	6	30
tert-Butylbenzene	951	891		ug/kg wet		94	55 - 125	6	25
Carbon disulfide	951	672		ug/kg wet		71	40 - 135	3	40

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0868-BSD1 | **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid/Soil | **Prep Type: Total**
Analysis Batch: 12E0868 | **Prep Batch: 12E0868_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon Tetrachloride	951	773		ug/kg wet		81	55 - 130	4	30
Chlorobenzene	951	848		ug/kg wet		89	60 - 120	5	30
Chlorodibromomethane	951	778		ug/kg wet		82	55 - 130	4	40
Chloroethane	951	618		ug/kg wet		65	50 - 145	0.7	40
Chloroform	951	803		ug/kg wet		84	65 - 130	5	30
Chloromethane	951	852		ug/kg wet		90	40 - 135	2	40
2-Chlorotoluene	951	871		ug/kg wet		92	60 - 125	8	35
4-Chlorotoluene	951	876		ug/kg wet		92	60 - 125	6	35
1,2-Dibromo-3-chloropropane	951	645		ug/kg wet		68	50 - 140	0.2	35
1,2-Dibromoethane (EDB)	951	849		ug/kg wet		89	55 - 140	1	30
Dibromomethane	951	841		ug/kg wet		88	65 - 135	4	30
1,2-Dichlorobenzene	951	896		ug/kg wet		94	65 - 120	2	30
1,3-Dichlorobenzene	951	860		ug/kg wet		90	60 - 125	4	30
1,4-Dichlorobenzene	951	878		ug/kg wet		92	60 - 125	3	30
Dichlorodifluoromethane	951	927		ug/kg wet		97	40 - 135	0.5	35
1,1-Dichloroethane	951	799		ug/kg wet		84	55 - 135	9	40
1,2-Dichloroethane	951	792		ug/kg wet		83	60 - 140	7	30
1,1-Dichloroethene	951	796		ug/kg wet		84	50 - 145	4	40
cis-1,2-Dichloroethene	951	865		ug/kg wet		91	60 - 135	1	40
trans-1,2-Dichloroethene	951	825		ug/kg wet		87	55 - 135	2	40
1,2-Dichloropropane	951	829		ug/kg wet		87	55 - 130	6	30
1,3-Dichloropropane	951	848		ug/kg wet		89	55 - 140	3	30
2,2-Dichloropropane	951	878		ug/kg wet		92	40 - 135	8	45
1,1-Dichloropropene	951	865		ug/kg wet		91	55 - 130	3	30
cis-1,3-Dichloropropene	951	860		ug/kg wet		90	50 - 115	3	35
trans-1,3-Dichloropropene	951	785		ug/kg wet		83	55 - 130	2	30
Ethylbenzene	951	824		ug/kg wet		87	60 - 125	8	30
Hexachlorobutadiene	951	913		ug/kg wet		96	40 - 135	7	35
Hexane	951	784		ug/kg wet		82	45 - 140	11	35
Isopropylbenzene	951	850		ug/kg wet		89	60 - 125	8	35
p-Isopropyltoluene	951	885		ug/kg wet		93	60 - 120	6	30
Methylene Chloride	951	862		ug/kg wet		91	55 - 145	4	40
Methyl tert-Butyl Ether	951	869		ug/kg wet		91	55 - 130	1	30
Naphthalene	951	844		ug/kg wet		89	50 - 130	7	30
n-Propylbenzene	951	884		ug/kg wet		93	50 - 125	4	35
Styrene	951	857		ug/kg wet		90	60 - 125	9	35
1,1,1,2-Tetrachloroethane	951	820		ug/kg wet		86	65 - 125	7	30
1,1,2,2-Tetrachloroethane	951	815		ug/kg wet		86	60 - 125	6	35
Tetrachloroethene	951	838		ug/kg wet		88	55 - 125	6	40
Toluene	951	830		ug/kg wet		87	60 - 130	8	35
1,2,3-Trichlorobenzene	951	827		ug/kg wet		87	50 - 130	1	35
1,2,4-Trichlorobenzene	951	853		ug/kg wet		90	45 - 135	0.01	35
1,1,1-Trichloroethane	951	821		ug/kg wet		86	60 - 125	7	30
1,1,2-Trichloroethane	951	860		ug/kg wet		90	55 - 135	5	30
Trichloroethene	951	805		ug/kg wet		85	60 - 130	7	30
Trichlorofluoromethane	951	877		ug/kg wet		92	50 - 145	3	40
1,2,3-Trichloropropane	951	805		ug/kg wet		85	50 - 145	3	35
1,2,4-Trimethylbenzene	951	873		ug/kg wet		92	55 - 125	8	35
1,3,5-Trimethylbenzene	951	865		ug/kg wet		91	50 - 130	6	35
Vinyl chloride	951	939		ug/kg wet		99	45 - 140	2	40

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12E0868-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0868 — **Prep Batch: 12E0868_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, total			2850	2540		ug/kg wet		89	50 - 130	8	30

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*100*		*75 - 125*
Toluene-d8	*98*		*80 - 120*
4-Bromofluorobenzene	*98*		*80 - 120*

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C

Lab Sample ID: 12E0539-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water - NonPotable — **Prep Type: TCLP**
Analysis Batch: V000861 — **Prep Batch: 12E0539_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
2,4-Dinitrotoluene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
Hexachlorobenzene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
Hexachloroethane	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
Hexachlorobutadiene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
Nitrobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
Pyridine	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
Cresol(s)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
2-Methylphenol (o-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
4-Methylphenol (p-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
Pentachlorophenol	<0.350		0.350		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
2,4,5-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:25	1.00
2,4,6-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:25	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*61*		*20 - 90*	*05/10/12 11:04*	*05/14/12 12:25*	*1.00*
2-Fluorobiphenyl	*53*		*25 - 95*	*05/10/12 11:04*	*05/14/12 12:25*	*1.00*
Terphenyl-d14	*81*		*35 - 110*	*05/10/12 11:04*	*05/14/12 12:25*	*1.00*
Phenol-d6	*27*		*10 - 45*	*05/10/12 11:04*	*05/14/12 12:25*	*1.00*
2-Fluorophenol	*38*		*10 - 60*	*05/10/12 11:04*	*05/14/12 12:25*	*1.00*
2,4,6-Tribromophenol	*61*		*30 - 105*	*05/10/12 11:04*	*05/14/12 12:25*	*1.00*

Lab Sample ID: 12E0539-BLK2 — **Client Sample ID: Method Blank**
Matrix: Water - NonPotable — **Prep Type: TCLP**
Analysis Batch: V000861 — **Prep Batch: 12E0539_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
2,4-Dinitrotoluene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
Hexachlorobenzene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
Hexachloroethane	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
Hexachlorobutadiene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
Nitrobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
Pyridine	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
Cresol(s)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:56	1.00

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C (Continued)

Lab Sample ID: 12E0539-BLK2
Matrix: Water - NonPotable
Analysis Batch: V000861

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 12E0539_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol (o-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
4-Methylphenol (p-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
Pentachlorophenol	<0.350		0.350		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
2,4,5-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:56	1.00
2,4,6-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 12:56	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*64*		*20 - 90*	*05/10/12 11:04*	*05/14/12 12:56*	*1.00*
2-Fluorobiphenyl	*58*		*25 - 95*	*05/10/12 11:04*	*05/14/12 12:56*	*1.00*
Terphenyl-d14	*77*		*35 - 110*	*05/10/12 11:04*	*05/14/12 12:56*	*1.00*
Phenol-d6	*28*		*10 - 45*	*05/10/12 11:04*	*05/14/12 12:56*	*1.00*
2-Fluorophenol	*39*		*10 - 60*	*05/10/12 11:04*	*05/14/12 12:56*	*1.00*
2,4,6-Tribromophenol	*66*		*30 - 105*	*05/10/12 11:04*	*05/14/12 12:56*	*1.00*

Lab Sample ID: 12E0539-BLK3
Matrix: Water - NonPotable
Analysis Batch: V000861

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 12E0539_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
2,4-Dinitrotoluene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
Hexachlorobenzene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
Hexachloroethane	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
Hexachlorobutadiene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
Nitrobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
Pyridine	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
Cresol(s)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
2-Methylphenol (o-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
4-Methylphenol (p-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
Pentachlorophenol	<0.350		0.350		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
2,4,5-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:27	1.00
2,4,6-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:27	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*62*		*20 - 90*	*05/10/12 11:04*	*05/14/12 13:27*	*1.00*
2-Fluorobiphenyl	*60*		*25 - 95*	*05/10/12 11:04*	*05/14/12 13:27*	*1.00*
Terphenyl-d14	*76*		*35 - 110*	*05/10/12 11:04*	*05/14/12 13:27*	*1.00*
Phenol-d6	*26*		*10 - 45*	*05/10/12 11:04*	*05/14/12 13:27*	*1.00*
2-Fluorophenol	*38*		*10 - 60*	*05/10/12 11:04*	*05/14/12 13:27*	*1.00*
2,4,6-Tribromophenol	*66*		*30 - 105*	*05/10/12 11:04*	*05/14/12 13:27*	*1.00*

Lab Sample ID: 12E0539-BLK4
Matrix: Water - NonPotable
Analysis Batch: V000861

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 12E0539_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
2,4-Dinitrotoluene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
Hexachlorobenzene	<0.0600		0.0600		mg/L		05/10/12 11:04	05/14/12 13:58	1.00

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C (Continued)

Lab Sample ID: 12E0539-BLK4
Matrix: Water - NonPotable
Analysis Batch: V000861

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 12E0539_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
Hexachlorobutadiene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
Nitrobenzene	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
Pyridine	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
Cresol(s)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
2-Methylphenol (o-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
4-Methylphenol (p-Cresol)	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
Pentachlorophenol	<0.350		0.350		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
2,4,5-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:58	1.00
2,4,6-Trichlorophenol	<0.0700		0.0700		mg/L		05/10/12 11:04	05/14/12 13:58	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*69*		*20 - 90*	*05/10/12 11:04*	*05/14/12 13:58*	*1.00*
2-Fluorobiphenyl	*65*		*25 - 95*	*05/10/12 11:04*	*05/14/12 13:58*	*1.00*
Terphenyl-d14	*76*		*35 - 110*	*05/10/12 11:04*	*05/14/12 13:58*	*1.00*
Phenol-d6	*29*		*10 - 45*	*05/10/12 11:04*	*05/14/12 13:58*	*1.00*
2-Fluorophenol	*42*		*10 - 60*	*05/10/12 11:04*	*05/14/12 13:58*	*1.00*
2,4,6-Tribromophenol	*67*		*30 - 105*	*05/10/12 11:04*	*05/14/12 13:58*	*1.00*

Lab Sample ID: 12E0539-BS1
Matrix: Water - NonPotable
Analysis Batch: V000861

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 12E0539_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.333	0.172		mg/L		52	20 - 65
2,4-Dinitrotoluene	0.333	0.193		mg/L		58	20 - 90
Hexachlorobenzene	0.333	0.230		mg/L		69	30 - 95
Hexachloroethane	0.333	0.164		mg/L		49	10 - 65
Hexachlorobutadiene	0.333	0.138		mg/L		41	10 - 70
Nitrobenzene	0.333	0.212		mg/L		63	25 - 80
Pyridine	0.333	0.131		mg/L		39	10 - 40
Cresol(s)	1.00	0.570		mg/L		57	20 - 75
2-Methylphenol (o-Cresol)	0.333	0.202		mg/L		61	25 - 75
4-Methylphenol (p-Cresol)	0.667	0.367		mg/L		55	20 - 75
Pentachlorophenol	0.333	0.214		mg/L		64	15 - 90
2,4,5-Trichlorophenol	0.333	0.222		mg/L		67	30 - 95
2,4,6-Trichlorophenol	0.333	0.214		mg/L		64	30 - 90

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*65*		*30 - 85*
2-Fluorobiphenyl	*62*		*30 - 90*
Terphenyl-d14	*81*		*40 - 105*
Phenol-d6	*27*		*10 - 45*
2-Fluorophenol	*40*		*15 - 55*
2,4,6-Tribromophenol	*66*		*35 - 105*

Method: SW 8270C - TCLP Semivolatile Compounds by EPA Method 1311/8270C (Continued)

Lab Sample ID: 12E0539-MS1
Matrix: Water - NonPotable
Analysis Batch: V000861

Client Sample ID: Matrix Spike
Prep Type: TCLP
Prep Batch: 12E0539_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	<0.0700		0.333	0.159		mg/L		48	20 - 65
2,4-Dinitrotoluene	<0.0600		0.333	0.205		mg/L		62	20 - 95
Hexachlorobenzene	<0.0600		0.333	0.212		mg/L		64	30 - 95
Hexachloroethane	<0.0700		0.333	0.157		mg/L		47	10 - 65
Hexachlorobutadiene	<0.0700		0.333	0.135		mg/L		41	10 - 70
Nitrobenzene	<0.0700		0.333	0.192		mg/L		58	25 - 80
Pyridine	<0.0700		0.333	0.114		mg/L		34	10 - 50
Cresol(s)	<0.0700		1.00	0.523		mg/L		52	10 - 100
2-Methylphenol (o-Cresol)	<0.0700		0.333	0.182		mg/L		55	20 - 80
4-Methylphenol (p-Cresol)	<0.0700		0.667	0.341		mg/L		51	20 - 75
Pentachlorophenol	<0.0700		0.333	0.218		mg/L		65	10 - 100
2,4,5-Trichlorophenol	<0.0700		0.333	0.213		mg/L		64	25 - 105
2,4,6-Trichlorophenol	<0.0700		0.333	0.200		mg/L		60	25 - 100

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Nitrobenzene-d5	*60*		*20 - 90*
2-Fluorobiphenyl	*58*		*25 - 95*
Terphenyl-d14	*78*		*35 - 115*
Phenol-d6	*26*		*10 - 45*
2-Fluorophenol	*36*		*10 - 60*
2,4,6-Tribromophenol	*65*		*25 - 120*

Lab Sample ID: 12E0539-MSD1
Matrix: Water - NonPotable
Analysis Batch: V000861

Client Sample ID: Matrix Spike Duplicate
Prep Type: TCLP
Prep Batch: 12E0539_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Du Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	<0.0700		0.333	0.159		mg/L		48	20 - 65	0.2	35
2,4-Dinitrotoluene	<0.0600		0.333	0.199		mg/L		60	20 - 95	3	35
Hexachlorobenzene	<0.0600		0.333	0.213		mg/L		64	30 - 95	0.06	35
Hexachloroethane	<0.0700		0.333	0.158		mg/L		47	10 - 65	0.4	35
Hexachlorobutadiene	<0.0700		0.333	0.136		mg/L		41	10 - 70	0.2	35
Nitrobenzene	<0.0700		0.333	0.195		mg/L		58	25 - 80	1	35
Pyridine	<0.0700		0.333	0.0839		mg/L		25	10 - 50	31	35
Cresol(s)	<0.0700		1.00	0.534		mg/L		53	10 - 100	2	35
2-Methylphenol (o-Cresol)	<0.0700		0.333	0.187		mg/L		56	20 - 80	3	35
4-Methylphenol (p-Cresol)	<0.0700		0.667	0.347		mg/L		52	20 - 75	2	35
Pentachlorophenol	<0.0700		0.333	0.229		mg/L		69	10 - 100	5	35
2,4,5-Trichlorophenol	<0.0700		0.333	0.223		mg/L		67	25 - 105	4	35
2,4,6-Trichlorophenol	<0.0700		0.333	0.201		mg/L		60	25 - 100	0.8	35

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Nitrobenzene-d5	*61*		*20 - 90*
2-Fluorobiphenyl	*58*		*25 - 95*
Terphenyl-d14	*76*		*35 - 115*
Phenol-d6	*27*		*10 - 45*
2-Fluorophenol	*38*		*10 - 60*
2,4,6-Tribromophenol	*67*		*25 - 120*

Method: SW 8270D - Semivolatile Organics by GC/MS

Lab Sample ID: 12E0414-BLK1
Matrix: Solid/Soil
Analysis Batch: V000829

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0414_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Acenaphthylene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Anthracene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Benzidine	<3.30		3.30		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Benzo (a) anthracene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Benzo (b) fluoranthene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Benzo (k) fluoranthene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Benzo (a) pyrene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Benzo (g,h,i) perylene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Benzyl alcohol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Butyl benzyl phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Bis(2-chloroethyl)ether	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Bis(2-chloroethoxy)methane	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Bis(2-ethylhexyl)phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Bis(2-chloroisopropyl) ether	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
4-Bromophenyl phenyl ether	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Carbazole	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
4-Chloroaniline	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2-Chloronaphthalene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
4-Chlorophenyl phenyl ether	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Chrysene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Dibenzo (a,h) anthracene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Dibenzofuran	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Di-n-butyl phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
1,2-Dichlorobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
1,3-Dichlorobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
1,4-Dichlorobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
3,3'-Dichlorobenzidine	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Diethyl phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Dimethyl phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2,4-Dinitrotoluene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2,6-Dinitrotoluene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Di-n-octyl phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Fluoranthene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Fluorene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Hexachlorobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Hexachlorobutadiene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Hexachlorocyclopentadiene	<0.660		0.660		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Hexachloroethane	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Indeno (1,2,3-cd) pyrene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Isophorone	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2-Methylnaphthalene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Naphthalene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2-Nitroaniline	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
3-Nitroaniline	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
4-Nitroaniline	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Nitrobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
N-Nitrosodimethylamine	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
N-Nitrosodiphenylamine	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Lab Sample ID: 12E0414-BLK1 | **Client Sample ID: Method Blank**
Matrix: Solid/Soil | **Prep Type: Total**
Analysis Batch: V000829 | **Prep Batch: 12E0414_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Phenanthrene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Pyrene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Pyridine	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
1,2,4-Trichlorobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Benzoic acid	<0.660		0.660		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
4-Chloro-3-methylphenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2-Chlorophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Cresol(s)	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2,4-Dichlorophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2,4-Dimethylphenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2,4-Dinitrophenol	<0.660		0.660		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
4,6-Dinitro-2-methylphenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2-Methylphenol (o-Cresol)	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
4-Methylphenol (p-Cresol)	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2-Nitrophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
4-Nitrophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Pentachlorophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
Phenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2,4,5-Trichlorophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00
2,4,6-Trichlorophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/09/12 14:56	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*56*		*15 - 90*	*05/08/12 10:17*	*05/09/12 14:56*	*1.00*
2-Fluorobiphenyl	*53*		*20 - 90*	*05/08/12 10:17*	*05/09/12 14:56*	*1.00*
Terphenyl-d14	*61*		*35 - 110*	*05/08/12 10:17*	*05/09/12 14:56*	*1.00*
Phenol-d6	*57*		*20 - 90*	*05/08/12 10:17*	*05/09/12 14:56*	*1.00*
2-Fluorophenol	*53*		*15 - 90*	*05/08/12 10:17*	*05/09/12 14:56*	*1.00*
2,4,6-Tribromophenol	*55*		*25 - 105*	*05/08/12 10:17*	*05/09/12 14:56*	*1.00*

Lab Sample ID: 12E0414-BLK2 | **Client Sample ID: Method Blank**
Matrix: Solid/Soil | **Prep Type: Total**
Analysis Batch: V000842 | **Prep Batch: 12E0414_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Acenaphthylene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Anthracene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Benzidine	<3.30		3.30		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Benzo (a) anthracene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Benzo (b) fluoranthene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Benzo (k) fluoranthene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Benzo (a) pyrene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Benzo (g,h,i) perylene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Benzyl alcohol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Butyl benzyl phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Bis(2-chloroethyl)ether	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Bis(2-chloroethoxy)methane	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Bis(2-ethylhexyl)phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Lab Sample ID: 12E0414-BLK2
Matrix: Solid/Soil
Analysis Batch: V000842

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0414_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroisopropyl) ether	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
4-Bromophenyl phenyl ether	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Carbazole	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
4-Chloroaniline	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2-Chloronaphthalene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
4-Chlorophenyl phenyl ether	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Chrysene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Dibenzo (a,h) anthracene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Dibenzofuran	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Di-n-butyl phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
1,2-Dichlorobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
1,3-Dichlorobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
1,4-Dichlorobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
3,3'-Dichlorobenzidine	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Diethyl phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Dimethyl phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2,4-Dinitrotoluene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2,6-Dinitrotoluene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Di-n-octyl phthalate	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Fluoranthene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Fluorene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Hexachlorobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Hexachlorobutadiene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Hexachlorocyclopentadiene	<0.660		0.660		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Hexachloroethane	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Indeno (1,2,3-cd) pyrene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Isophorone	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2-Methylnaphthalene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Naphthalene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2-Nitroaniline	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
3-Nitroaniline	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
4-Nitroaniline	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Nitrobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
N-Nitrosodimethylamine	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
N-Nitrosodiphenylamine	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
N-Nitrosodi-n-propylamine	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Phenanthrene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Pyrene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Pyridine	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
1,2,4-Trichlorobenzene	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Benzoic acid	<0.660		0.660		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
4-Chloro-3-methylphenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2-Chlorophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Cresol(s)	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2,4-Dichlorophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2,4-Dimethylphenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2,4-Dinitrophenol	<0.660		0.660		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
4,6-Dinitro-2-methylphenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2-Methylphenol (o-Cresol)	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
4-Methylphenol (p-Cresol)	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Lab Sample ID: 12E0414-BLK2
Matrix: Solid/Soil
Analysis Batch: V000842

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0414_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
4-Nitrophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Pentachlorophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
Phenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2,4,5-Trichlorophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00
2,4,6-Trichlorophenol	<0.330		0.330		mg/kg wet		05/08/12 10:17	05/10/12 12:47	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*51*		*15 - 90*	*05/08/12 10:17*	*05/10/12 12:47*	*1.00*
2-Fluorobiphenyl	*49*		*20 - 90*	*05/08/12 10:17*	*05/10/12 12:47*	*1.00*
Terphenyl-d14	*70*		*35 - 110*	*05/08/12 10:17*	*05/10/12 12:47*	*1.00*
Phenol-d6	*47*		*20 - 90*	*05/08/12 10:17*	*05/10/12 12:47*	*1.00*
2-Fluorophenol	*47*		*15 - 90*	*05/08/12 10:17*	*05/10/12 12:47*	*1.00*
2,4,6-Tribromophenol	*53*		*25 - 105*	*05/08/12 10:17*	*05/10/12 12:47*	*1.00*

Lab Sample ID: 12E0414-BS1
Matrix: Solid/Soil
Analysis Batch: V000829

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0414_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	4.00	1.48		mg/kg wet		37	25 - 95
Acenaphthylene	4.00	1.44		mg/kg wet		36	25 - 95
Anthracene	4.00	1.82		mg/kg wet		46	30 - 110
Benzidine	4.00	1.44		mg/kg wet		36	5 - 105
Benzo (a) anthracene	4.00	1.99		mg/kg wet		50	40 - 105
Benzo (b) fluoranthene	4.00	1.97		mg/kg wet		49	40 - 110
Benzo (k) fluoranthene	4.00	1.95		mg/kg wet		49	35 - 100
Benzo (a) pyrene	4.00	2.20		mg/kg wet		55	45 - 110
Benzo (g,h,i) perylene	4.00	1.92		mg/kg wet		48	40 - 105
Benzyl alcohol	4.00	1.36		mg/kg wet		34	10 - 90
Butyl benzyl phthalate	4.00	2.16		mg/kg wet		54	30 - 115
Bis(2-chloroethyl)ether	4.00	1.45		mg/kg wet		36	10 - 85
Bis(2-chloroethoxy)methane	4.00	1.42		mg/kg wet		35	15 - 95
Bis(2-ethylhexyl)phthalate	4.00	2.13		mg/kg wet		53	30 - 110
Bis(2-chloroisopropyl) ether	4.00	1.33		mg/kg wet		33	10 - 85
4-Bromophenyl phenyl ether	4.00	1.76		mg/kg wet		44	25 - 110
Carbazole	4.00	2.11		mg/kg wet		53	30 - 110
4-Chloroaniline	4.00	1.35		mg/kg wet		34	15 - 85
2-Chloronaphthalene	4.00	1.45		mg/kg wet		36	20 - 95
4-Chlorophenyl phenyl ether	4.00	1.64		mg/kg wet		41	25 - 100
Chrysene	4.00	2.07		mg/kg wet		52	40 - 105
Dibenzo (a,h) anthracene	4.00	1.89		mg/kg wet		47	40 - 105
Dibenzofuran	4.00	1.56		mg/kg wet		39	20 - 95
Di-n-butyl phthalate	4.00	2.15		mg/kg wet		54	30 - 125
1,2-Dichlorobenzene	4.00	1.32		mg/kg wet		33	10 - 80
1,3-Dichlorobenzene	4.00	1.34		mg/kg wet		33	10 - 80
1,4-Dichlorobenzene	4.00	1.34		mg/kg wet		34	10 - 85
3,3'-Dichlorobenzidine	4.00	1.84		mg/kg wet		46	35 - 95
Diethyl phthalate	4.00	1.88		mg/kg wet		47	25 - 100

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Lab Sample ID: 12E0414-BS1
Matrix: Solid/Soil
Analysis Batch: V000829

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0414_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	4.00	1.85		mg/kg wet		46	25 - 105
2,4-Dinitrotoluene	4.00	1.85		mg/kg wet		46	25 - 100
2,6-Dinitrotoluene	4.00	1.76		mg/kg wet		44	25 - 105
Di-n-octyl phthalate	4.00	2.26		mg/kg wet		57	30 - 120
Fluoranthene	4.00	2.00		mg/kg wet		50	35 - 110
Fluorene	4.00	1.62		mg/kg wet		41	30 - 100
Hexachlorobenzene	4.00	1.72		mg/kg wet		43	25 - 100
Hexachlorobutadiene	4.00	1.09		mg/kg wet		27	10 - 85
Hexachlorocyclopentadiene	4.00	1.04		mg/kg wet		26	10 - 95
Hexachloroethane	4.00	1.37		mg/kg wet		34	10 - 80
Indeno (1,2,3-cd) pyrene	4.00	1.92		mg/kg wet		48	35 - 105
Isophorone	4.00	1.40		mg/kg wet		35	15 - 90
2-Methylnaphthalene	4.00	1.29		mg/kg wet		32	15 - 90
Naphthalene	4.00	1.26		mg/kg wet		31	15 - 90
2-Nitroaniline	4.00	1.83		mg/kg wet		46	20 - 100
3-Nitroaniline	4.00	2.00		mg/kg wet		50	25 - 95
4-Nitroaniline	4.00	2.22		mg/kg wet		56	25 - 100
Nitrobenzene	4.00	1.34		mg/kg wet		33	10 - 85
N-Nitrosodimethylamine	4.00	1.60		mg/kg wet		40	10 - 85
N-Nitrosodiphenylamine	4.00	2.14		mg/kg wet		53	25 - 120
N-Nitrosodi-n-propylamine	4.00	1.41		mg/kg wet		35	10 - 95
Phenanthrene	4.00	1.82		mg/kg wet		46	30 - 105
Pyrene	4.00	1.92		mg/kg wet		48	35 - 110
Pyridine	4.00	1.32		mg/kg wet		33	10 - 70
1,2,4-Trichlorobenzene	4.00	1.22		mg/kg wet		31	10 - 90
Benzoic acid	4.00	0.800		mg/kg wet		20	10 - 75
4-Chloro-3-methylphenol	4.00	1.47		mg/kg wet		37	20 - 105
2-Chlorophenol	4.00	1.37		mg/kg wet		34	10 - 95
Cresol(s)	8.00	2.76		mg/kg wet		34	10 - 95
2,4-Dichlorophenol	4.00	1.24		mg/kg wet		31	15 - 100
2,4-Dimethylphenol	4.00	1.17		mg/kg wet		29	15 - 90
2,4-Dinitrophenol	4.00	1.40		mg/kg wet		35	10 - 80
4,6-Dinitro-2-methylphenol	4.00	1.72		mg/kg wet		43	10 - 100
2-Methylphenol (o-Cresol)	4.00	1.37		mg/kg wet		34	10 - 95
4-Methylphenol (p-Cresol)	4.00	1.39		mg/kg wet		35	15 - 100
2-Nitrophenol	4.00	1.26		mg/kg wet		31	15 - 95
4-Nitrophenol	4.00	1.92		mg/kg wet		48	30 - 105
Pentachlorophenol	4.00	1.49		mg/kg wet		37	25 - 90
Phenol	4.00	1.45		mg/kg wet		36	10 - 95
2,4,5-Trichlorophenol	4.00	1.44		mg/kg wet		36	25 - 105
2,4,6-Trichlorophenol	4.00	1.38		mg/kg wet		34	20 - 100

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*33*		*15 - 90*
2-Fluorobiphenyl	*33*		*25 - 90*
Terphenyl-d14	*47*		*40 - 110*
Phenol-d6	*36*		*15 - 95*
2-Fluorophenol	*35*		*10 - 90*
2,4,6-Tribromophenol	*41*		*35 - 100*

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Lab Sample ID: 12E0414-BS3
Matrix: Solid/Soil
Analysis Batch: V000842

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0414_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	4.00	1.35		mg/kg wet		34	25 - 95
Acenaphthylene	4.00	1.33		mg/kg wet		33	25 - 95
Anthracene	4.00	1.84		mg/kg wet		46	30 - 110
Benzidine	4.00	0.922		mg/kg wet		23	5 - 105
Benzo (a) anthracene	4.00	1.84		mg/kg wet		46	40 - 105
Benzo (b) fluoranthene	4.00	1.80		mg/kg wet		45	40 - 110
Benzo (k) fluoranthene	4.00	1.92		mg/kg wet		48	35 - 100
Benzo (a) pyrene	4.00	1.89		mg/kg wet		47	45 - 110
Benzo (g,h,i) perylene	4.00	1.81		mg/kg wet		45	40 - 105
Benzyl alcohol	4.00	1.23		mg/kg wet		31	10 - 90
Butyl benzyl phthalate	4.00	2.07		mg/kg wet		52	30 - 115
Bis(2-chloroethyl)ether	4.00	1.37		mg/kg wet		34	10 - 85
Bis(2-chloroethoxy)methane	4.00	1.28		mg/kg wet		32	15 - 95
Bis(2-ethylhexyl)phthalate	4.00	2.13		mg/kg wet		53	30 - 110
Bis(2-chloroisopropyl) ether	4.00	1.34		mg/kg wet		34	10 - 85
4-Bromophenyl phenyl ether	4.00	1.70		mg/kg wet		42	25 - 110
Carbazole	4.00	1.75		mg/kg wet		44	30 - 110
4-Chloroaniline	4.00	1.27		mg/kg wet		32	15 - 85
2-Chloronaphthalene	4.00	1.34		mg/kg wet		34	20 - 95
4-Chlorophenyl phenyl ether	4.00	1.56		mg/kg wet		39	25 - 100
Chrysene	4.00	1.87		mg/kg wet		47	40 - 105
Dibenzo (a,h) anthracene	4.00	1.81		mg/kg wet		45	40 - 105
Dibenzofuran	4.00	1.46		mg/kg wet		36	20 - 95
Di-n-butyl phthalate	4.00	1.92		mg/kg wet		48	30 - 125
1,2-Dichlorobenzene	4.00	1.32		mg/kg wet		33	10 - 80
1,3-Dichlorobenzene	4.00	1.32		mg/kg wet		33	10 - 80
1,4-Dichlorobenzene	4.00	1.32		mg/kg wet		33	10 - 85
3,3'-Dichlorobenzidine	4.00	1.79		mg/kg wet		45	35 - 95
Diethyl phthalate	4.00	1.75		mg/kg wet		44	25 - 100
Dimethyl phthalate	4.00	1.70		mg/kg wet		42	25 - 105
2,4-Dinitrotoluene	4.00	1.82		mg/kg wet		46	25 - 100
2,6-Dinitrotoluene	4.00	1.63		mg/kg wet		41	25 - 105
Di-n-octyl phthalate	4.00	2.24		mg/kg wet		56	30 - 120
Fluoranthene	4.00	1.75		mg/kg wet		44	35 - 110
Fluorene	4.00	1.49		mg/kg wet		37	30 - 100
Hexachlorobenzene	4.00	1.70		mg/kg wet		43	25 - 100
Hexachlorobutadiene	4.00	1.24		mg/kg wet		31	10 - 85
Hexachlorocyclopentadiene	4.00	1.31		mg/kg wet		33	10 - 95
Hexachloroethane	4.00	1.29		mg/kg wet		32	10 - 80
Indeno (1,2,3-cd) pyrene	4.00	1.80		mg/kg wet		45	35 - 105
Isophorone	4.00	1.29		mg/kg wet		32	15 - 90
2-Methylnaphthalene	4.00	1.36		mg/kg wet		34	15 - 90
Naphthalene	4.00	1.18		mg/kg wet		29	15 - 90
2-Nitroaniline	4.00	1.62		mg/kg wet		41	20 - 100
3-Nitroaniline	4.00	1.75		mg/kg wet		44	25 - 95
4-Nitroaniline	4.00	1.65		mg/kg wet		41	25 - 100
Nitrobenzene	4.00	1.25		mg/kg wet		31	10 - 85
N-Nitrosodimethylamine	4.00	1.48		mg/kg wet		37	10 - 85
N-Nitrosodiphenylamine	4.00	1.56		mg/kg wet		39	25 - 120

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Lab Sample ID: 12E0414-BS3
Matrix: Solid/Soil
Analysis Batch: V000842

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0414_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Nitrosodi-n-propylamine	4.00	1.28		mg/kg wet		32	10 - 95
Phenanthrene	4.00	1.65		mg/kg wet		41	30 - 105
Pyrene	4.00	1.93		mg/kg wet		48	35 - 110
Pyridine	4.00	1.24		mg/kg wet		31	10 - 70
1,2,4-Trichlorobenzene	4.00	1.28		mg/kg wet		32	10 - 90
Benzoic acid	4.00	1.02		mg/kg wet		26	10 - 75
4-Chloro-3-methylphenol	4.00	1.32		mg/kg wet		33	20 - 105
2-Chlorophenol	4.00	1.21		mg/kg wet		30	10 - 95
Cresol(s)	8.00	2.34		mg/kg wet		29	10 - 95
2,4-Dichlorophenol	4.00	1.21		mg/kg wet		30	15 - 100
2,4-Dimethylphenol	4.00	1.07		mg/kg wet		27	15 - 90
2,4-Dinitrophenol	4.00	1.29		mg/kg wet		32	10 - 80
4,6-Dinitro-2-methylphenol	4.00	1.60		mg/kg wet		40	10 - 100
2-Methylphenol (o-Cresol)	4.00	1.17		mg/kg wet		29	10 - 95
4-Methylphenol (p-Cresol)	4.00	1.17		mg/kg wet		29	15 - 100
2-Nitrophenol	4.00	1.24		mg/kg wet		31	15 - 95
4-Nitrophenol	4.00	1.60		mg/kg wet		40	30 - 105
Pentachlorophenol	4.00	1.43		mg/kg wet		36	25 - 90
Phenol	4.00	1.19		mg/kg wet		30	10 - 95
2,4,5-Trichlorophenol	4.00	1.34		mg/kg wet		33	25 - 105
2,4,6-Trichlorophenol	4.00	1.33		mg/kg wet		33	20 - 100

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*30*		*15 - 90*
2-Fluorobiphenyl	*31*		*25 - 90*
Terphenyl-d14	*54*		*40 - 110*
Phenol-d6	*29*		*15 - 95*
2-Fluorophenol	*31*		*10 - 90*
2,4,6-Tribromophenol	*40*		*35 - 100*

Lab Sample ID: 12E0414-MS1
Matrix: Solid/Soil
Analysis Batch: V000829

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12E0414_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	<0.00763		4.30	2.01		mg/kg dry	☼	47	10 - 105
Acenaphthylene	<0.00872		4.30	1.95		mg/kg dry	☼	45	10 - 105
Anthracene	<0.0109		4.30	2.28		mg/kg dry	☼	53	10 - 110
Benzidine	<0.00872		4.30	1.86		mg/kg dry	☼	43	5 - 105
Benzo (a) anthracene	<0.0120		4.30	2.44		mg/kg dry	☼	57	10 - 105
Benzo (b) fluoranthene	<0.0163		4.30	2.39		mg/kg dry	☼	55	10 - 110
Benzo (k) fluoranthene	<0.0131		4.30	2.44		mg/kg dry	☼	57	10 - 105
Benzo (a) pyrene	<0.0153		4.30	2.71		mg/kg dry	☼	63	15 - 110
Benzo (g,h,i) perylene	<0.0174		4.30	2.29		mg/kg dry	☼	53	15 - 110
Benzyl alcohol	<0.00980		4.30	1.83		mg/kg dry	☼	43	10 - 90
Butyl benzyl phthalate	0.0634		4.30	2.63		mg/kg dry	☼	60	15 - 115
Bis(2-chloroethyl)ether	<0.00763		4.30	1.92		mg/kg dry	☼	45	10 - 90
Bis(2-chloroethoxy)methane	<0.0109		4.30	1.92		mg/kg dry	☼	45	10 - 95
Bis(2-ethylhexyl)phthalate	<0.0229		4.30	2.55		mg/kg dry	☼	59	15 - 110

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Lab Sample ID: 12E0414-MS1
Matrix: Solid/Soil
Analysis Batch: V000829

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12E0414_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroisopropyl) ether	<0.00763		4.30	1.74		mg/kg dry	☼	40	10 - 90
4-Bromophenyl phenyl ether	<0.0185		4.30	2.15		mg/kg dry	☼	50	15 - 110
Carbazole	<0.0142		4.30	2.54		mg/kg dry	☼	59	15 - 110
4-Chloroaniline	<0.00763		4.30	1.77		mg/kg dry	☼	41	10 - 90
2-Chloronaphthalene	<0.0120		4.30	1.92		mg/kg dry	☼	45	10 - 100
4-Chlorophenyl phenyl ether	<0.0131		4.30	2.10		mg/kg dry	☼	49	10 - 105
Chrysene	<0.0131		4.30	2.51		mg/kg dry	☼	58	15 - 110
Dibenzo (a,h) anthracene	<0.0207		4.30	2.33		mg/kg dry	☼	54	15 - 110
Dibenzofuran	<0.0109		4.30	2.00		mg/kg dry	☼	46	10 - 100
Di-n-butyl phthalate	<0.0218		4.30	2.56		mg/kg dry	☼	59	15 - 125
1,2-Dichlorobenzene	<0.00980		4.30	1.74		mg/kg dry	☼	41	10 - 85
1,3-Dichlorobenzene	<0.00872		4.30	1.77		mg/kg dry	☼	41	10 - 80
1,4-Dichlorobenzene	<0.00872		4.30	1.74		mg/kg dry	☼	40	10 - 85
3,3'-Dichlorobenzidine	<0.0109		4.30	2.24		mg/kg dry	☼	52	10 - 95
Diethyl phthalate	0.0149		4.30	2.24		mg/kg dry	☼	52	10 - 100
Dimethyl phthalate	<0.0153		4.30	2.23		mg/kg dry	☼	52	10 - 105
2,4-Dinitrotoluene	<0.0196		4.30	2.27		mg/kg dry	☼	53	10 - 100
2,6-Dinitrotoluene	<0.0153		4.30	2.17		mg/kg dry	☼	50	10 - 105
Di-n-octyl phthalate	<0.0403		4.30	2.69		mg/kg dry	☼	62	15 - 120
Fluoranthene	<0.0109		4.30	2.53		mg/kg dry	☼	59	15 - 110
Fluorene	<0.00980		4.30	2.15		mg/kg dry	☼	50	10 - 105
Hexachlorobenzene	<0.0153		4.30	2.11		mg/kg dry	☼	49	10 - 105
Hexachlorobutadiene	<0.0109		4.30	1.48		mg/kg dry	☼	34	10 - 95
Hexachlorocyclopentadiene	<0.0131		4.30	1.41		mg/kg dry	☼	33	10 - 95
Hexachloroethane	<0.0109		4.30	1.81		mg/kg dry	☼	42	10 - 95
Indeno (1,2,3-cd) pyrene	<0.0163		4.30	2.31		mg/kg dry	☼	54	10 - 105
Isophorone	<0.00980		4.30	1.83		mg/kg dry	☼	43	10 - 95
2-Methylnaphthalene	<0.00872		4.30	1.77		mg/kg dry	☼	41	10 - 95
Naphthalene	<0.282		4.30	1.73		mg/kg dry	☼	40	10 - 95
2-Nitroaniline	<0.0153		4.30	2.29		mg/kg dry	☼	53	10 - 100
3-Nitroaniline	<0.0131		4.30	2.38		mg/kg dry	☼	55	10 - 95
4-Nitroaniline	<0.0109		4.30	2.66		mg/kg dry	☼	62	10 - 100
Nitrobenzene	<0.0120		4.30	1.76		mg/kg dry	☼	41	10 - 95
N-Nitrosodimethylamine	<0.00872		4.30	2.05		mg/kg dry	☼	48	10 - 90
N-Nitrosodiphenylamine	<0.0142		4.30	2.59		mg/kg dry	☼	60	10 - 120
N-Nitrosodi-n-propylamine	<0.0741		4.30	1.94		mg/kg dry	☼	45	10 - 95
Phenanthrene	<0.0131		4.30	2.28		mg/kg dry	☼	53	15 - 110
Pyrene	<0.0142		4.30	2.36		mg/kg dry	☼	55	15 - 110
Pyridine	<0.00980		4.30	1.80		mg/kg dry	☼	42	10 - 70
1,2,4-Trichlorobenzene	<0.00763		4.30	1.66		mg/kg dry	☼	39	10 - 95
Benzoic acid	<0.479		4.30	<0.719	M1	mg/kg dry	☼		10 - 85
4-Chloro-3-methylphenol	<0.0109		4.30	2.01		mg/kg dry	☼	47	10 - 105
2-Chlorophenol	<0.0109		4.30	1.88		mg/kg dry	☼	44	10 - 95
Cresol(s)	<0.272		8.61	3.81		mg/kg dry	☼	44	10 - 95
2,4-Dichlorophenol	<0.00980		4.30	1.73		mg/kg dry	☼	40	10 - 100
2,4-Dimethylphenol	<0.0163		4.30	1.58		mg/kg dry	☼	37	10 - 100
2,4-Dinitrophenol	<0.0774		4.30	0.458		mg/kg dry	☼	11	10 - 80
4,6-Dinitro-2-methylphenol	<0.00872		4.30	1.82		mg/kg dry	☼	42	10 - 100
2-Methylphenol (o-Cresol)	<0.280		4.30	1.90		mg/kg dry	☼	44	10 - 95
4-Methylphenol (p-Cresol)	<0.00872		4.30	1.90		mg/kg dry	☼	44	10 - 100

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Lab Sample ID: 12E0414-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000829 — **Prep Batch: 12E0414_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
2-Nitrophenol	<0.0251		4.30	1.77		mg/kg dry	☼	41	10 - 95
4-Nitrophenol	<0.0174		4.30	2.44		mg/kg dry	☼	57	10 - 105
Pentachlorophenol	<0.261		4.30	1.74		mg/kg dry	☼	40	10 - 95
Phenol	<0.261		4.30	1.98		mg/kg dry	☼	46	10 - 95
2,4,5-Trichlorophenol	<0.0174		4.30	1.99		mg/kg dry	☼	46	10 - 105
2,4,6-Trichlorophenol	<0.0218		4.30	1.88		mg/kg dry	☼	44	10 - 100

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Nitrobenzene-d5	*40*		*10 - 95*
2-Fluorobiphenyl	*40*		*10 - 105*
Terphenyl-d14	*51*		*20 - 115*
Phenol-d6	*44*		*10 - 100*
2-Fluorophenol	*42*		*10 - 95*
2,4,6-Tribromophenol	*48*		*15 - 110*

Lab Sample ID: 12E0414-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000829 — **Prep Batch: 12E0414_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	<0.00763		4.29	1.81		mg/kg dry	☼	42	10 - 105	10	40
Acenaphthylene	<0.00872		4.29	1.74		mg/kg dry	☼	41	10 - 105	11	40
Anthracene	<0.0109		4.29	2.09		mg/kg dry	☼	49	10 - 110	9	40
Benzidine	<0.00872		4.29	1.68		mg/kg dry	☼	39	5 - 105	10	40
Benzo (a) anthracene	<0.0120		4.29	2.25		mg/kg dry	☼	52	10 - 105	8	40
Benzo (b) fluoranthene	<0.0163		4.29	2.24		mg/kg dry	☼	52	10 - 110	6	40
Benzo (k) fluoranthene	<0.0131		4.29	2.22		mg/kg dry	☼	52	10 - 105	9	40
Benzo (a) pyrene	<0.0153		4.29	2.50		mg/kg dry	☼	58	15 - 110	8	40
Benzo (g,h,i) perylene	<0.0174		4.29	2.13		mg/kg dry	☼	50	15 - 110	7	40
Benzyl alcohol	<0.00980		4.29	1.56		mg/kg dry	☼	36	10 - 90	16	40
Butyl benzyl phthalate	0.0634		4.29	2.43		mg/kg dry	☼	55	15 - 115	8	40
Bis(2-chloroethyl)ether	<0.00763		4.29	1.62		mg/kg dry	☼	38	10 - 90	17	40
Bis(2-chloroethoxy)methane	<0.0109		4.29	1.67		mg/kg dry	☼	39	10 - 95	14	40
Bis(2-ethylhexyl)phthalate	<0.0229		4.29	2.36		mg/kg dry	☼	55	15 - 110	8	40
Bis(2-chloroisopropyl) ether	<0.00763		4.29	1.51		mg/kg dry	☼	35	10 - 90	15	40
4-Bromophenyl phenyl ether	<0.0185		4.29	1.95		mg/kg dry	☼	45	15 - 110	10	40
Carbazole	<0.0142		4.29	2.29		mg/kg dry	☼	53	15 - 110	10	40
4-Chloroaniline	<0.00763		4.29	1.54		mg/kg dry	☼	36	10 - 90	14	40
2-Chloronaphthalene	<0.0120		4.29	1.67		mg/kg dry	☼	39	10 - 100	14	40
4-Chlorophenyl phenyl ether	<0.0131		4.29	1.86		mg/kg dry	☼	43	10 - 105	12	40
Chrysene	<0.0131		4.29	2.35		mg/kg dry	☼	55	15 - 110	7	40
Dibenzo (a,h) anthracene	<0.0207		4.29	2.16		mg/kg dry	☼	50	15 - 110	7	40
Dibenzofuran	<0.0109		4.29	1.75		mg/kg dry	☼	41	10 - 100	13	40
Di-n-butyl phthalate	<0.0218		4.29	2.34		mg/kg dry	☼	54	15 - 125	9	40
1,2-Dichlorobenzene	<0.00980		4.29	1.45		mg/kg dry	☼	34	10 - 85	18	40
1,3-Dichlorobenzene	<0.00872		4.29	1.44		mg/kg dry	☼	33	10 - 80	21	40
1,4-Dichlorobenzene	<0.00872		4.29	1.46		mg/kg dry	☼	34	10 - 85	17	40
3,3'-Dichlorobenzidine	<0.0109		4.29	2.05		mg/kg dry	☼	48	10 - 95	9	40
Diethyl phthalate	0.0149		4.29	2.02		mg/kg dry	☼	47	10 - 100	10	40

Method: SW 8270D - Semivolatile Organics by GC/MS (Continued)

Lab Sample ID: 12E0414-MSD1
Matrix: Solid/Soil
Analysis Batch: V000829

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 12E0414_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dimethyl phthalate	<0.0153		4.29	2.01		mg/kg dry	☼	47	10 - 105	10	40
2,4-Dinitrotoluene	<0.0196		4.29	2.04		mg/kg dry	☼	47	10 - 100	11	40
2,6-Dinitrotoluene	<0.0153		4.29	1.95		mg/kg dry	☼	45	10 - 105	11	40
Di-n-octyl phthalate	<0.0403		4.29	2.49		mg/kg dry	☼	58	15 - 120	8	40
Fluoranthene	<0.0109		4.29	2.30		mg/kg dry	☼	54	15 - 110	9	40
Fluorene	<0.00980		4.29	1.93		mg/kg dry	☼	45	10 - 105	11	40
Hexachlorobenzene	<0.0153		4.29	1.88		mg/kg dry	☼	44	10 - 105	12	40
Hexachlorobutadiene	<0.0109		4.29	1.29		mg/kg dry	☼	30	10 - 95	14	40
Hexachlorocyclopentadiene	<0.0131		4.29	1.20		mg/kg dry	☼	28	10 - 95	16	40
Hexachloroethane	<0.0109		4.29	1.50		mg/kg dry	☼	35	10 - 95	19	40
Indeno (1,2,3-cd) pyrene	<0.0163		4.29	2.16		mg/kg dry	☼	50	10 - 105	6	40
Isophorone	<0.00980		4.29	1.62		mg/kg dry	☼	38	10 - 95	13	40
2-Methylnaphthalene	<0.00872		4.29	1.53		mg/kg dry	☼	36	10 - 95	15	40
Naphthalene	<0.282		4.29	1.51		mg/kg dry	☼	35	10 - 95	14	40
2-Nitroaniline	<0.0153		4.29	2.04		mg/kg dry	☼	47	10 - 100	12	40
3-Nitroaniline	<0.0131		4.29	2.17		mg/kg dry	☼	51	10 - 95	9	40
4-Nitroaniline	<0.0109		4.29	2.40		mg/kg dry	☼	56	10 - 100	10	40
Nitrobenzene	<0.0120		4.29	1.53		mg/kg dry	☼	36	10 - 95	14	40
N-Nitrosodimethylamine	<0.00872		4.29	1.64		mg/kg dry	☼	38	10 - 90	22	40
N-Nitrosodiphenylamine	<0.0142		4.29	2.35		mg/kg dry	☼	55	10 - 120	10	40
N-Nitrosodi-n-propylamine	<0.0741		4.29	1.62		mg/kg dry	☼	38	10 - 95	18	40
Phenanthrene	<0.0131		4.29	2.10		mg/kg dry	☼	49	15 - 110	8	40
Pyrene	<0.0142		4.29	2.18		mg/kg dry	☼	51	15 - 110	8	40
Pyridine	<0.00980		4.29	1.46		mg/kg dry	☼	34	10 - 70	21	40
1,2,4-Trichlorobenzene	<0.00763		4.29	1.42		mg/kg dry	☼	33	10 - 95	16	40
Benzoic acid	<0.479		4.29	<0.719	M1	mg/kg dry	☼		10 - 85		40
4-Chloro-3-methylphenol	<0.0109		4.29	1.78		mg/kg dry	☼	42	10 - 105	12	40
2-Chlorophenol	<0.0109		4.29	1.59		mg/kg dry	☼	37	10 - 95	17	40
Cresol(s)	<0.272		8.59	3.26		mg/kg dry	☼	38	10 - 95	16	40
2,4-Dichlorophenol	<0.00980		4.29	1.50		mg/kg dry	☼	35	10 - 100	14	40
2,4-Dimethylphenol	<0.0163		4.29	1.42		mg/kg dry	☼	33	10 - 100	11	40
2,4-Dinitrophenol	<0.0774		4.29	0.221	M1 R	mg/kg dry	☼	5	10 - 80	70	40
4,6-Dinitro-2-methylphenol	<0.00872		4.29	1.47		mg/kg dry	☼	34	10 - 100	22	40
2-Methylphenol (o-Cresol)	<0.280		4.29	1.62		mg/kg dry	☼	38	10 - 95	16	40
4-Methylphenol (p-Cresol)	<0.00872		4.29	1.64		mg/kg dry	☼	38	10 - 100	15	40
2-Nitrophenol	<0.0251		4.29	1.50		mg/kg dry	☼	35	10 - 95	17	40
4-Nitrophenol	<0.0174		4.29	2.18		mg/kg dry	☼	51	10 - 105	11	40
Pentachlorophenol	<0.261		4.29	1.56		mg/kg dry	☼	36	10 - 95	11	40
Phenol	<0.261		4.29	1.67		mg/kg dry	☼	39	10 - 95	17	40
2,4,5-Trichlorophenol	<0.0174		4.29	1.81		mg/kg dry	☼	42	10 - 105	10	40
2,4,6-Trichlorophenol	<0.0218		4.29	1.65		mg/kg dry	☼	38	10 - 100	13	40

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Nitrobenzene-d5	*40*		*10 - 95*
2-Fluorobiphenyl	*41*		*10 - 105*
Terphenyl-d14	*54*		*20 - 115*
Phenol-d6	*42*		*10 - 100*
2-Fluorophenol	*39*		*10 - 95*
2,4,6-Tribromophenol	*50*		*15 - 110*

Method: 8151 - TCLP Herbicides

Lab Sample ID: MB 500-149617/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149724 — **Prep Batch: 149617**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.00050		0.0010	0.00050	mg/L		05/14/12 08:54	05/15/12 09:06	1
Silvex (2,4,5-TP)	<0.00050		0.0010	0.00050	mg/L		05/14/12 08:54	05/15/12 09:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*73*		*30 - 129*	*05/14/12 08:54*	*05/15/12 09:06*	*1*

Lab Sample ID: LCS 500-149617/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149724 — **Prep Batch: 149617**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	0.00400	0.000972	J	mg/L		24	20 - 115
Silvex (2,4,5-TP)	0.00400	0.00268		mg/L		67	32 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCAA	*70*		*30 - 129*

Lab Sample ID: LB 500-149288/1-B LB — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 149724 — **Prep Batch: 149617**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.050		0.10	0.050	mg/L		05/14/12 08:54	05/15/12 10:13	1
Silvex (2,4,5-TP)	<0.050		0.10	0.050	mg/L		05/14/12 08:54	05/15/12 10:13	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*78*		*30 - 129*	*05/14/12 08:54*	*05/15/12 10:13*	*1*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Lab Sample ID: 12E0361-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000833 — **Prep Batch: 12E0361_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 13:28	1.00
Gasoline	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 13:28	1.00
Motor Oil	<10.0		10.0		mg/kg		05/07/12 12:01	05/09/12 13:28	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*80*		*60 - 145*	*05/07/12 12:01*	*05/09/12 13:28*	*1.00*

Lab Sample ID: 12E0361-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000833 — **Prep Batch: 12E0361_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel	80.0	61.0		mg/kg		76	45 - 125

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS (Continued)

Lab Sample ID: 12E0361-BS1
Matrix: Solid/Soil
Analysis Batch: V000833

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0361_P

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Octacosane	81		60 - 150

Lab Sample ID: 12E0361-MS1
Matrix: Solid/Soil
Analysis Batch: V000852

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12E0361_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel	<1.21		77.3	52.6		mg/kg		68	30 - 125

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
Octacosane	64		60 - 150

Lab Sample ID: 12E0361-MSD1
Matrix: Solid/Soil
Analysis Batch: V000833

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 12E0361_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel	<1.21		77.2	47.6		mg/kg		62	30 - 125	10	40

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
Octacosane	66		60 - 150

Lab Sample ID: 12E0412-BLK1
Matrix: Solid/Soil
Analysis Batch: V000827

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E0412_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 09:36	1.00
Gasoline	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 09:36	1.00
Motor Oil	<10.0		10.0		mg/kg		05/08/12 10:10	05/09/12 09:36	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Octacosane	74		60 - 145	05/08/12 10:10	05/09/12 09:36	1.00

Lab Sample ID: 12E0412-BS1
Matrix: Solid/Soil
Analysis Batch: V000827

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E0412_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel			80.0	64.6		mg/kg		81	45 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Octacosane	80		60 - 150

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS (Continued)

Lab Sample ID: 12E0412-MS1 — **Client Sample ID: SB-01(MIP-15) 31-33**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000827 — **Prep Batch: 12E0412_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel	<10.0		78.6	64.2		mg/kg		82	30 - 125

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Octacosane	*88*		*60 - 150*

Lab Sample ID: 12E0412-MSD1 — **Client Sample ID: SB-01(MIP-15) 31-33**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000827 — **Prep Batch: 12E0412_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel	<10.0		79.0	64.3		mg/kg		81	30 - 125	0.1	40

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Octacosane	*98*		*60 - 150*

Lab Sample ID: 12E0474-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000857 — **Prep Batch: 12E0474_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	<12.0		12.0		mg/kg		05/09/12 10:42	05/14/12 15:28	1.00
Gasoline	<12.0		12.0		mg/kg		05/09/12 10:42	05/14/12 15:28	1.00
Motor Oil	<12.0		12.0		mg/kg		05/09/12 10:42	05/14/12 15:28	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Octacosane	*87*		*60 - 145*	*05/09/12 10:42*	*05/14/12 15:28*	*1.00*

Lab Sample ID: 12E0474-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000857 — **Prep Batch: 12E0474_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel			80.0	61.3		mg/kg		77	45 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Octacosane	*82*		*60 - 150*

Lab Sample ID: 12E0474-MS1 — **Client Sample ID: SB-12(MIP-16a) 04-08**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000857 — **Prep Batch: 12E0474_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel	59800000		77.6	<11.6	MHA	mg/kg		-7710 0000	30 - 125

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Octacosane	*5890*	*ZX*	*60 - 150*

Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS (Continued)

Lab Sample ID: 12E0474-MSD1 — **Client Sample ID: SB-12(MIP-16a) 04-08**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000857 — **Prep Batch: 12E0474_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel	59800000		77.1	<11.6	MHA	mg/kg		-7760 0000	30 - 125		40

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Octacosane		*ZX*	*60 - 150*

Method: SW 8081B - TCLP Pesticides by EPA Method 1311/8081A

Lab Sample ID: 12E0476-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water - NonPotable — **Prep Type: TCLP**
Analysis Batch: V000890 — **Prep Batch: 12E0476_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	<0.00300		0.00300		mg/L		05/09/12 10:48	05/16/12 18:11	1.00
Endrin	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 18:11	1.00
gamma-BHC (Lindane)	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 18:11	1.00
Heptachlor	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 18:11	1.00
Heptachlor epoxide	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 18:11	1.00
Methoxychlor	<0.000480		0.000480		mg/L		05/09/12 10:48	05/16/12 18:11	1.00
Toxaphene	<0.00300		0.00300		mg/L		05/09/12 10:48	05/16/12 18:11	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl	*81*		*45 - 130*	*05/09/12 10:48*	*05/16/12 18:11*	*1.00*
Tetrachloro-meta-xylene	*60*		*30 - 100*	*05/09/12 10:48*	*05/16/12 18:11*	*1.00*

Lab Sample ID: 12E0476-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water - NonPotable — **Prep Type: TCLP**
Analysis Batch: V000890 — **Prep Batch: 12E0476_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin	0.000500	0.000351		mg/L		70	50 - 120
gamma-BHC (Lindane)	0.000500	0.000319		mg/L		64	50 - 115
Heptachlor	0.000500	0.000283		mg/L		57	40 - 120
Heptachlor epoxide	0.000500	0.000334		mg/L		67	50 - 115
Methoxychlor	0.000500	0.000424		mg/L		85	40 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Decachlorobiphenyl	*80*		*40 - 135*
Tetrachloro-meta-xylene	*55*		*35 - 110*

Lab Sample ID: 12E0476-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water - NonPotable — **Prep Type: TCLP**
Analysis Batch: V000890 — **Prep Batch: 12E0476_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endrin	0.000500	0.000357		mg/L		71	50 - 120	1	35
gamma-BHC (Lindane)	0.000500	0.000314		mg/L		63	50 - 115	1	35
Heptachlor	0.000500	0.000294		mg/L		59	40 - 120	4	35
Heptachlor epoxide	0.000500	0.000334		mg/L		67	50 - 115	0.07	35

Method: SW 8081B - TCLP Pesticides by EPA Method 1311/8081A (Continued)

Lab Sample ID: 12E0476-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water - NonPotable — **Prep Type: TCLP**
Analysis Batch: V000890 — **Prep Batch: 12E0476_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methoxychlor			0.000500	0.000422		mg/L		84	40 - 130	0.3	30

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Decachlorobiphenyl	*85*		*40 - 135*
Tetrachloro-meta-xylene	*58*		*35 - 110*

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082

Lab Sample ID: 12E0475-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000880 — **Prep Batch: 12E0475_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0500		0.0500		mg/kg wet		05/09/12 10:43	05/17/12 09:48	1.00
PCB-1221	<0.0500		0.0500		mg/kg wet		05/09/12 10:43	05/17/12 09:48	1.00
PCB-1232	<0.0500		0.0500		mg/kg wet		05/09/12 10:43	05/17/12 09:48	1.00
PCB-1242	<0.0500		0.0500		mg/kg wet		05/09/12 10:43	05/17/12 09:48	1.00
PCB-1248	<0.0500		0.0500		mg/kg wet		05/09/12 10:43	05/17/12 09:48	1.00
PCB-1254	<0.0500		0.0500		mg/kg wet		05/09/12 10:43	05/17/12 09:48	1.00
PCB-1260	<0.0500		0.0500		mg/kg wet		05/09/12 10:43	05/17/12 09:48	1.00
PCB-1268	<0.0500		0.0500		mg/kg wet		05/09/12 10:43	05/17/12 09:48	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Decachlorobiphenyl	*86*		*40 - 120*	*05/09/12 10:43*	*05/17/12 09:48*	*1.00*
Tetrachloro-meta-xylene	*78*		*10 - 105*	*05/09/12 10:43*	*05/17/12 09:48*	*1.00*

Lab Sample ID: 12E0475-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000880 — **Prep Batch: 12E0475_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1232			0.200	0.158		mg/kg wet		79	20 - 105		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Decachlorobiphenyl	*95*		*40 - 135*
Tetrachloro-meta-xylene	*91*		*15 - 110*

Lab Sample ID: 12E0475-MS1 — **Client Sample ID: SB-05(MIP-23) 02-04**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000880 — **Prep Batch: 12E0475_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1232	<0.0619		0.243	0.450	M1	mg/kg dry	☼	185	20 - 115		

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Decachlorobiphenyl	*78*		*25 - 135*
Tetrachloro-meta-xylene	*71*		*15 - 110*

Method: SW 8082 - Polychlorinated Biphenyls by EPA Method 8082 (Continued)

Lab Sample ID: 12E0475-MSD1 — **Client Sample ID: SB-05(MIP-23) 02-04**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: V000880 — **Prep Batch: 12E0475_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1232	<0.0619		0.246	0.304	M1 R	mg/kg dry	☼	123	20 - 115	39	35

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Decachlorobiphenyl	*74*		*25 - 135*
Tetrachloro-meta-xylene	*56*		*15 - 110*

Method: SW 7470A - TCLP Metals

Lab Sample ID: 12E0604-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0604 — **Prep Batch: 12E0604_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		05/10/12 16:00	05/11/12 11:23	1.00

Lab Sample ID: 12E0604-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0604 — **Prep Batch: 12E0604_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0167	0.0172		mg/L		103	80 - 120

Lab Sample ID: 12E0604-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0604 — **Prep Batch: 12E0604_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000730		0.0167	0.0170		mg/L		102	75 - 130

Method: SW 7471B - Total Metals by SW 846 Series Methods

Lab Sample ID: 12E0436-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0436 — **Prep Batch: 12E0436_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0200		0.0200		mg/kg wet		05/08/12 13:38	05/08/12 15:42	1.00

Lab Sample ID: 12E0436-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0436 — **Prep Batch: 12E0436_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.161	0.150		mg/kg wet		93	80 - 120

Method: SW 7471B - Total Metals by SW 846 Series Methods (Continued)

Lab Sample ID: 12E0436-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0436 — **Prep Batch: 12E0436_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0556		0.182	0.212		mg/kg dry	☼	86	70 - 130

Lab Sample ID: 12E0436-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0436 — **Prep Batch: 12E0436_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0556		0.188	0.198		mg/kg dry	☼	76	70 - 130	7	20

Method: SW 6010C - TCLP Metals

Lab Sample ID: 12E0479-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0479 — **Prep Batch: 12E0479_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.300		0.300		mg/L		05/09/12 13:10	05/10/12 20:21	1.00
Barium	<0.100		0.100		mg/L		05/09/12 13:10	05/10/12 20:21	1.00
Cadmium	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:21	1.00
Chromium	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:21	1.00
Lead	<0.100		0.100		mg/L		05/09/12 13:10	05/10/12 20:21	1.00
Selenium	<0.150		0.150		mg/L		05/09/12 13:10	05/10/12 20:21	1.00
Silver	<0.0200		0.0200		mg/L		05/09/12 13:10	05/10/12 20:21	1.00

Lab Sample ID: 12E0479-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0479 — **Prep Batch: 12E0479_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.00	2.23		mg/L		111	85 - 120
Barium	1.00	1.03		mg/L		103	80 - 115
Cadmium	1.00	1.13		mg/L		113	85 - 120
Chromium	1.00	1.13		mg/L		113	85 - 115
Lead	2.00	1.98		mg/L		99	80 - 120
Selenium	4.00	4.66		mg/L		117	85 - 120
Silver	1.00	1.10		mg/L		110	80 - 110

Lab Sample ID: 12E0479-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0479 — **Prep Batch: 12E0479_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.300		2.00	2.16		mg/L		108	75 - 125
Barium	0.517		1.00	1.51		mg/L		99	75 - 125
Cadmium	0.509		1.00	1.56		mg/L		105	75 - 120
Chromium	<0.0200		1.00	1.07		mg/L		107	80 - 115
Lead	0.148		2.00	2.01		mg/L		93	75 - 125
Selenium	0.0497		4.00	4.58		mg/L		113	75 - 125
Silver	<0.0200		1.00	1.08		mg/L		108	75 - 125

Method: SW 6010C - TCLP Metals (Continued)

Lab Sample ID: 12E0479-MS2 — **Client Sample ID: Matrix Spike**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0479 — **Prep Batch: 12E0479_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.300		2.00	2.14		mg/L		107	75 - 125
Barium	1.23		1.00	2.16		mg/L		92	75 - 125
Cadmium	<0.0200		1.00	1.08		mg/L		108	75 - 120
Chromium	<0.0200		1.00	1.06		mg/L		106	80 - 115
Lead	151		2.00	147	MHA	mg/L		-161	75 - 125
Selenium	<0.0396		4.00	4.51		mg/L		113	75 - 125
Silver	<0.0200		1.00	1.08		mg/L		108	75 - 125

Lab Sample ID: 12E0479-DUP1 — **Client Sample ID: Duplicate**
Matrix: Solid/Soil — **Prep Type: TCLP**
Analysis Batch: 12E0479 — **Prep Batch: 12E0479_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Arsenic	<0.300		<0.300		mg/L			20
Barium	<0.100		<0.100		mg/L			20
Cadmium	<0.0200		<0.0200		mg/L			20
Chromium	<0.0200		<0.0200		mg/L			20
Lead	0.310		0.292		mg/L		6	20
Selenium	<0.0396		<0.150		mg/L			20
Silver	<0.0200		<0.0200		mg/L			20

Method: SW 6010C - Total Metals by SW 846 Series Methods

Lab Sample ID: 12E0421-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0421 — **Prep Batch: 12E0421_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<4.00		4.00		mg/kg wet		05/08/12 10:46	05/09/12 23:12	1.00
Barium	<0.500		0.500		mg/kg wet		05/08/12 10:46	05/09/12 23:12	1.00
Cadmium	<1.00		1.00		mg/kg wet		05/08/12 10:46	05/09/12 23:12	1.00
Chromium	<1.00		1.00		mg/kg wet		05/08/12 10:46	05/09/12 23:12	1.00
Lead	<5.00		5.00		mg/kg wet		05/08/12 10:46	05/09/12 23:12	1.00
Selenium	<7.50		7.50		mg/kg wet		05/08/12 10:46	05/09/12 23:12	1.00
Silver	<1.00		1.00		mg/kg wet		05/08/12 10:46	05/09/12 23:12	1.00

Lab Sample ID: 12E0421-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0421 — **Prep Batch: 12E0421_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	95.4	91.2		mg/kg wet		96	80 - 115
Barium	47.7	49.3		mg/kg wet		103	80 - 110
Cadmium	47.7	50.7		mg/kg wet		106	80 - 115
Chromium	47.7	50.8		mg/kg wet		106	85 - 110
Lead	95.4	89.5		mg/kg wet		94	80 - 115
Selenium	191	182		mg/kg wet		96	85 - 110
Silver	47.7	48.5		mg/kg wet		102	80 - 120

Method: SW 6010C - Total Metals by SW 846 Series Methods (Continued)

Lab Sample ID: 12E0421-MS1 — **Client Sample ID: SB-01(MIP-15) 02-04**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0421 — **Prep Batch: 12E0421_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.20		218	212		mg/kg dry	☼	95	75 - 125
Barium	96.4		109	215		mg/kg dry	☼	109	75 - 125
Cadmium	<1.10		109	102		mg/kg dry	☼	93	75 - 125
Chromium	13.9		109	124		mg/kg dry	☼	101	75 - 120
Lead	7.81		218	201		mg/kg dry	☼	89	75 - 125
Selenium	<8.28		435	411		mg/kg dry	☼	94	75 - 115
Silver	2.08		109	113		mg/kg dry	☼	101	75 - 110

Lab Sample ID: 12E0421-MS2 — **Client Sample ID: SB-05(MIP-23) 06-08**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0421 — **Prep Batch: 12E0421_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<15.1	IE	234	231		mg/kg dry	☼	99	75 - 125
Barium	102		117	238		mg/kg dry	☼	116	75 - 125
Cadmium	<3.77	IE	117	128		mg/kg dry	☼	110	75 - 125
Chromium	26.3		117	163		mg/kg dry	☼	117	75 - 120
Lead	<18.9	IE	234	240		mg/kg dry	☼	97	75 - 125
Selenium	<28.3	IE	469	483		mg/kg dry	☼	103	75 - 115
Silver	4.09		117	125		mg/kg dry	☼	103	75 - 110

Lab Sample ID: 12E0421-MSD1 — **Client Sample ID: SB-01(MIP-15) 02-04**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0421 — **Prep Batch: 12E0421_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Du Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.20		216	210		mg/kg dry	☼	95	75 - 125	1	20
Barium	96.4		108	231		mg/kg dry	☼	124	75 - 125	7	20
Cadmium	<1.10		108	102		mg/kg dry	☼	94	75 - 125	0.3	20
Chromium	13.9		108	119		mg/kg dry	☼	97	75 - 120	4	20
Lead	7.81		216	198		mg/kg dry	☼	88	75 - 125	1	20
Selenium	<8.28		432	401		mg/kg dry	☼	93	75 - 115	2	20
Silver	2.08		108	110		mg/kg dry	☼	100	75 - 110	2	20

Lab Sample ID: 12E0421-DUP1 — **Client Sample ID: SB-12(MIP-16a) 04-08**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0421 — **Prep Batch: 12E0421_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Arsenic	<4.95		<4.95		mg/kg dry	☼		15
Barium	152		155		mg/kg dry	☼	2	20
Cadmium	<1.24		<1.24		mg/kg dry	☼		20
Chromium	18.1		16.3		mg/kg dry	☼	10	20
Lead	11.0		9.08		mg/kg dry	☼	19	20
Selenium	<9.27		<9.27		mg/kg dry	☼		20
Silver	<1.24		0.843		mg/kg dry	☼	23	20

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 500-149327/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149485 — **Prep Batch: 149327**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<9.7		25	9.7	mg/Kg		05/10/12 12:35	05/11/12 10:15	1

Lab Sample ID: LCS 500-149327/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149485 — **Prep Batch: 149327**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	156	150		mg/Kg		96	80 - 120

Method: 9071B - HEM and SGT-HEM

Lab Sample ID: MB 500-149680/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149727 — **Prep Batch: 149680**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	130	J	500	96	mg/Kg		05/15/12 07:00	05/15/12 11:10	1

Lab Sample ID: LCS 500-149680/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149727 — **Prep Batch: 149680**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	4000	4240		mg/Kg		106	80 - 120

Lab Sample ID: 500-46172-8 MS — **Client Sample ID: CVE0494-10**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149727 — **Prep Batch: 149680**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	500	J B	4610	5430		mg/Kg	☼	107	75 - 125

Lab Sample ID: 500-46172-8 MSD — **Client Sample ID: CVE0494-10**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149727 — **Prep Batch: 149680**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	500	J B	4610	7300	F	mg/Kg	☼	148	75 - 125	29	20

Lab Sample ID: MB 500-149939/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149964 — **Prep Batch: 149939**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	170	J	500	96	mg/Kg		05/17/12 07:00	05/17/12 11:20	1

Method: 9071B - HEM and SGT-HEM (Continued)

Lab Sample ID: LCS 500-149939/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149964 — **Prep Batch: 149939**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	4000	4260		mg/Kg		106	80 - 120

Lab Sample ID: 500-46172-14 MS — **Client Sample ID: CVE0494-18**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149964 — **Prep Batch: 149939**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	110	J B	4690	4690		mg/Kg	☼	100	75 - 125

Lab Sample ID: 500-46172-14 MSD — **Client Sample ID: CVE0494-18**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 149964 — **Prep Batch: 149939**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	110	J B	4700	4560		mg/Kg	☼	97	75 - 125	3	20

Method: ASTM D92 - General Chemistry Parameters

Lab Sample ID: 12E0793-DUP1 — **Client Sample ID: Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0793 — **Prep Batch: 12E0793_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Flashpoint	0.00		>212°F		°F			10

Method: SM 2540 G - General Chemistry Parameters

Lab Sample ID: 12E0441-DUP1 — **Client Sample ID: SB-01(MIP-15) 02-04**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0441 — **Prep Batch: 12E0441_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
% Solids	90.6		90.8		%		0.2	10

Lab Sample ID: 12E0441-DUP2 — **Client Sample ID: SB-13(MIP-32) 10-12**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0441 — **Prep Batch: 12E0441_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
% Solids	86.6		86.6		%		0.07	10

Lab Sample ID: 12E0442-DUP1 — **Client Sample ID: Duplicate-2**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0442 — **Prep Batch: 12E0442_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
% Solids	82.6		83.4		%		1	10

Method: SM 2540 G - General Chemistry Parameters (Continued)

Lab Sample ID: 12E0442-DUP2 — **Client Sample ID: SB-06(MIP-27) 06-08**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0442 — **Prep Batch: 12E0442_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
% Solids	82.4			81.1		%				2	10

Method: SW 9012A Mod - General Chemistry Parameters

Lab Sample ID: 12E0746-BLK1 — **Client Sample ID: Method Blank**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0746 — **Prep Batch: 12E0746_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide	<1.00		1.00		mg/kg wet		05/14/12 19:30	05/14/12 21:43	1.00

Lab Sample ID: 12E0746-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0746 — **Prep Batch: 12E0746_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide			9.96	10.6		mg/kg wet		107	90 - 110		

Lab Sample ID: 12E0746-MS1 — **Client Sample ID: SB-03(MIP-30) 06-08**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0746 — **Prep Batch: 12E0746_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide	<1.27		12.2	12.9		mg/kg dry	☼	106	90 - 110		

Lab Sample ID: 12E0746-MSD1 — **Client Sample ID: SB-03(MIP-30) 06-08**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0746 — **Prep Batch: 12E0746_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide	<1.27		12.0	12.6		mg/kg dry	☼	105	90 - 110	3	20

Method: SW 9045D - General Chemistry Parameters

Lab Sample ID: 12E0598-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0598 — **Prep Batch: 12E0598_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	6.97		pH Units		100	98 - 102		

Lab Sample ID: 12E0598-DUP1 — **Client Sample ID: Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12E0598 — **Prep Batch: 12E0598_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
pH	7.59			7.64	H3	pH Units				0.7	15

Method: SW 9045D - General Chemistry Parameters (Continued)

Lab Sample ID: 12E0598-DUP2
Matrix: Solid/Soil
Analysis Batch: 12E0598

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 12E0598_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
pH	5.54			5.70	H3	pH Units				3	15

QC Association Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

GCMS Volatiles

Leach Batch: 12E0466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	TCLP Extraction	
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	TCLP Extraction	
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	TCLP Extraction	
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	TCLP Extraction	

Analysis Batch: 12E0527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0527-BLK1	Method Blank	Total	Water - NonPotable	SW 8260B	12E0527_P
12E0527-BS1	Lab Control Sample	Total	Water - NonPotable	SW 8260B	12E0527_P
12E0527-MS1	Matrix Spike	Total	Water - NonPotable	SW 8260B	12E0527_P
12E0527-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SW 8260B	12E0527_P
CVE0494-38	Trip Blank (GA-2)	Total	Water	SW 8260B	12E0527_P
CVE0494-39	Trip Blank (LBW-7)	Total	Water	SW 8260B	12E0527_P
CVE0494-40	Trip Blank (Rockford)	Total	Water	SW 8260B	12E0527_P
CVE0494-41	Trip Blank (002)	Total	Water	SW 8260B	12E0527_P

Analysis Batch: 12E0566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-38	Trip Blank (GA-2)	Total	Water	SW 9041A	12E0566_P
CVE0494-39	Trip Blank (LBW-7)	Total	Water	SW 9041A	12E0566_P
CVE0494-40	Trip Blank (Rockford)	Total	Water	SW 9041A	12E0566_P
CVE0494-41	Trip Blank (002)	Total	Water	SW 9041A	12E0566_P

Analysis Batch: 12E0602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0602-BLK1	Method Blank	TCLP	Solid/Soil	SW 1311/8260B	12E0602_P
12E0602-BS1	Lab Control Sample	TCLP	Solid/Soil	SW 1311/8260B	12E0602_P
12E0602-DUP1	SB-12(MIP-16a) 04-08	TCLP	Solid/Soil	SW 1311/8260B	12E0602_P
12E0602-MS1	Matrix Spike	TCLP	Solid/Soil	SW 1311/8260B	12E0602_P
12E0602-MSD1	Matrix Spike Duplicate	TCLP	Solid/Soil	SW 1311/8260B	12E0602_P
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 1311/8260B	12E0602_P
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 1311/8260B	12E0602_P
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 1311/8260B	12E0602_P
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 1311/8260B	12E0602_P

Analysis Batch: 12E0709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0709-BLK1	Method Blank	Total	Solid/Soil	SW 8260B	12E0709_P
12E0709-BS1	Lab Control Sample	Total	Solid/Soil	SW 8260B	12E0709_P
12E0709-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 8260B	12E0709_P
CVE0494-01	SB-01(MIP-15) 02-04	Total	Soil	SW 8260B	12E0709_P
CVE0494-02	SB-01(MIP-15) 07-09	Total	Soil	SW 8260B	12E0709_P
CVE0494-03	SB-01(MIP-15) 15-17	Total	Soil	SW 8260B	12E0709_P
CVE0494-04	SB-01(MIP-15) 31-33	Total	Soil	SW 8260B	12E0709_P
CVE0494-06	SB-02(MIP-34) 14-16	Total	Soil	SW 8260B	12E0709_P
CVE0494-07	SB-02(MIP-34) 28-30	Total	Soil	SW 8260B	12E0709_P
CVE0494-08	SB-13(MIP-32) 01-03	Total	Soil	SW 8260B	12E0709_P

GCMS Volatiles (Continued)

Analysis Batch: 12E0713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0713-BLK1	Method Blank	Total	Solid/Soil	SW 8260B	12E0713_P
12E0713-BS1	Lab Control Sample	Total	Solid/Soil	SW 8260B	12E0713_P
12E0713-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 8260B	12E0713_P
CVE0494-10	SB-13(MIP-32) 10-12	Total	Soil	SW 8260B	12E0713_P
CVE0494-11	SB-13(MIP-32) 16-18	Total	Soil	SW 8260B	12E0713_P
CVE0494-12	SB-13(MIP-32) 26-28	Total	Soil	SW 8260B	12E0713_P
CVE0494-13	SB-11(MIP-02) 14-16	Total	Soil	SW 8260B	12E0713_P
CVE0494-14	SB-11(MIP-02) 18-20	Total	Soil	SW 8260B	12E0713_P
CVE0494-15	SB-03(MIP-30) 02-04	Total	Soil	SW 8260B	12E0713_P
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 8260B	12E0713_P
CVE0494-17	SB-03(MIP-30) 16-18	Total	Soil	SW 8260B	12E0713_P
CVE0494-20	SB-08(MIP-25) 02-04	Total	Soil	SW 8260B	12E0713_P
CVE0494-21	Duplicate-2	Total	Soil	SW 8260B	12E0713_P
CVE0494-22	SB-08(MIP-25) 10-12	Total	Soil	SW 8260B	12E0713_P
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 8260B	12E0713_P
CVE0494-24	SB-05(MIP-23) 06-08	Total	Soil	SW 8260B	12E0713_P
CVE0494-25	SB-05(MIP-23) 12-14	Total	Soil	SW 8260B	12E0713_P
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 8260B	12E0713_P
CVE0494-27	Duplicate-3	Total	Soil	SW 8260B	12E0713_P
CVE0494-28	SB-12(MIP-16a) 10-12	Total	Soil	SW 8260B	12E0713_P
CVE0494-29	SB-03(MIP-30) 22-24	Total	Soil	SW 8260B	12E0713_P
CVE0494-30	SB-10(MIP-12) 05-07	Total	Soil	SW 8260B	12E0713_P
CVE0494-31	SB-10(MIP-12) 16-18	Total	Soil	SW 8260B	12E0713_P

Analysis Batch: 12E0839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0839-BLK1	Method Blank	Total	Solid/Soil	SW 8260B	12E0839_P
12E0839-BS1	Lab Control Sample	Total	Solid/Soil	SW 8260B	12E0839_P
12E0839-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 8260B	12E0839_P
CVE0494-06 - RE1	SB-02(MIP-34) 14-16	Total	Soil	SW 8260B	12E0839_P

Analysis Batch: 12E0868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0868-BLK1	Method Blank	Total	Solid/Soil	SW 8260B	12E0868_P
12E0868-BS1	Lab Control Sample	Total	Solid/Soil	SW 8260B	12E0868_P
12E0868-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 8260B	12E0868_P
CVE0494-09	SB-13(MIP-32) 04-06	Total	Soil	SW 8260B	12E0868_P
CVE0494-32	SB-06(MIP-27) 06-08	Total	Soil	SW 8260B	12E0868_P
CVE0494-33	Duplicate-1	Total	Soil	SW 8260B	12E0868_P
CVE0494-34	SB-06(MIP-27) 20-22	Total	Soil	SW 8260B	12E0868_P
CVE0494-35	SB-04(LIF-06) 06-08	Total	Soil	SW 8260B	12E0868_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 8260B	12E0868_P
CVE0494-37	SB-04(LIF-06) 16-18	Total	Soil	SW 8260B	12E0868_P

Prep Batch: 12E0527_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0527-BLK1	Method Blank	Total	Water - NonPotable	SW 5030B	
12E0527-BS1	Lab Control Sample	Total	Water - NonPotable	SW 5030B	
12E0527-MS1	Matrix Spike	Total	Water - NonPotable	SW 5030B	

GCMS Volatiles (Continued)

Prep Batch: 12E0527_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0527-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SW 5030B	
CVE0494-38	Trip Blank (GA-2)	Total	Water	SW 5030B	
CVE0494-39	Trip Blank (LBW-7)	Total	Water	SW 5030B	
CVE0494-40	Trip Blank (Rockford)	Total	Water	SW 5030B	
CVE0494-41	Trip Blank (002)	Total	Water	SW 5030B	

Prep Batch: 12E0566_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-38	Trip Blank (GA-2)	Total	Water	Default Prep VOC	
CVE0494-39	Trip Blank (LBW-7)	Total	Water	Default Prep VOC	
CVE0494-40	Trip Blank (Rockford)	Total	Water	Default Prep VOC	
CVE0494-41	Trip Blank (002)	Total	Water	Default Prep VOC	

Prep Batch: 12E0602_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0602-BLK1	Method Blank	TCLP	Solid/Soil	SW 5030B	
12E0602-BS1	Lab Control Sample	TCLP	Solid/Soil	SW 5030B	
12E0602-DUP1	SB-12(MIP-16a) 04-08	TCLP	Solid/Soil	SW 5030B	
12E0602-MS1	Matrix Spike	TCLP	Solid/Soil	SW 5030B	
12E0602-MSD1	Matrix Spike Duplicate	TCLP	Solid/Soil	SW 5030B	
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 5030B	12E0466
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 5030B	12E0466
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 5030B	12E0466
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 5030B	12E0466

Prep Batch: 12E0709_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0709-BLK1	Method Blank	Total	Solid/Soil	SW 5035	
12E0709-BS1	Lab Control Sample	Total	Solid/Soil	SW 5035	
12E0709-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 5035	
CVE0494-01	SB-01(MIP-15) 02-04	Total	Soil	SW 5035	
CVE0494-02	SB-01(MIP-15) 07-09	Total	Soil	SW 5035	
CVE0494-03	SB-01(MIP-15) 15-17	Total	Soil	SW 5035	
CVE0494-04	SB-01(MIP-15) 31-33	Total	Soil	SW 5035	
CVE0494-06	SB-02(MIP-34) 14-16	Total	Soil	SW 5035	
CVE0494-07	SB-02(MIP-34) 28-30	Total	Soil	SW 5035	
CVE0494-08	SB-13(MIP-32) 01-03	Total	Soil	SW 5035	

Prep Batch: 12E0713_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0713-BLK1	Method Blank	Total	Solid/Soil	SW 5035	
12E0713-BS1	Lab Control Sample	Total	Solid/Soil	SW 5035	
12E0713-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 5035	
CVE0494-10	SB-13(MIP-32) 10-12	Total	Soil	SW 5035	
CVE0494-11	SB-13(MIP-32) 16-18	Total	Soil	SW 5035	
CVE0494-12	SB-13(MIP-32) 26-28	Total	Soil	SW 5035	
CVE0494-13	SB-11(MIP-02) 14-16	Total	Soil	SW 5035	
CVE0494-14	SB-11(MIP-02) 18-20	Total	Soil	SW 5035	

GCMS Volatiles (Continued)

Prep Batch: 12E0713_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-15	SB-03(MIP-30) 02-04	Total	Soil	SW 5035	
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 5035	
CVE0494-17	SB-03(MIP-30) 16-18	Total	Soil	SW 5035	
CVE0494-20	SB-08(MIP-25) 02-04	Total	Soil	SW 5035	
CVE0494-21	Duplicate-2	Total	Soil	SW 5035	
CVE0494-22	SB-08(MIP-25) 10-12	Total	Soil	SW 5035	
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 5035	
CVE0494-24	SB-05(MIP-23) 06-08	Total	Soil	SW 5035	
CVE0494-25	SB-05(MIP-23) 12-14	Total	Soil	SW 5035	
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 5035	
CVE0494-27	Duplicate-3	Total	Soil	SW 5035	
CVE0494-28	SB-12(MIP-16a) 10-12	Total	Soil	SW 5035	
CVE0494-29	SB-03(MIP-30) 22-24	Total	Soil	SW 5035	
CVE0494-30	SB-10(MIP-12) 05-07	Total	Soil	SW 5035	
CVE0494-31	SB-10(MIP-12) 16-18	Total	Soil	SW 5035	

Prep Batch: 12E0839_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0839-BLK1	Method Blank	Total	Solid/Soil	SW 5035	
12E0839-BS1	Lab Control Sample	Total	Solid/Soil	SW 5035	
12E0839-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 5035	
CVE0494-06 - RE1	SB-02(MIP-34) 14-16	Total	Soil	SW 5035	

Prep Batch: 12E0868_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0868-BLK1	Method Blank	Total	Solid/Soil	SW 5035	
12E0868-BS1	Lab Control Sample	Total	Solid/Soil	SW 5035	
12E0868-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 5035	
CVE0494-09	SB-13(MIP-32) 04-06	Total	Soil	SW 5035	
CVE0494-32	SB-06(MIP-27) 06-08	Total	Soil	SW 5035	
CVE0494-33	Duplicate-1	Total	Soil	SW 5035	
CVE0494-34	SB-06(MIP-27) 20-22	Total	Soil	SW 5035	
CVE0494-35	SB-04(LIF-06) 06-08	Total	Soil	SW 5035	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 5035	
CVE0494-37	SB-04(LIF-06) 16-18	Total	Soil	SW 5035	

GCMS Semivolatiles

Leach Batch: 12E0340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	TCLP Extraction	
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	TCLP Extraction	
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	TCLP Extraction	
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	TCLP Extraction	

Analysis Batch: V000829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0414-BLK1	Method Blank	Total	Solid/Soil	SW 8270D	12E0414_P
12E0414-BS1	Lab Control Sample	Total	Solid/Soil	SW 8270D	12E0414_P
12E0414-MS1	Matrix Spike	Total	Solid/Soil	SW 8270D	12E0414_P
12E0414-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 8270D	12E0414_P
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 8270D	12E0414_P

GCMS Semivolatiles (Continued)

Analysis Batch: V000829 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 8270D	12E0414_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 8270D	12E0414_P

Analysis Batch: V000841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 8270D	12E0414_P

Analysis Batch: V000842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0414-BLK2	Method Blank	Total	Solid/Soil	SW 8270D	12E0414_P
12E0414-BS3	Lab Control Sample	Total	Solid/Soil	SW 8270D	12E0414_P

Analysis Batch: V000861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0539-BLK1	Method Blank	TCLP	Water - NonPotable	SW 8270C	12E0539_P
12E0539-BLK2	Method Blank	TCLP	Water - NonPotable	SW 8270C	12E0539_P
12E0539-BLK3	Method Blank	TCLP	Water - NonPotable	SW 8270C	12E0539_P
12E0539-BLK4	Method Blank	TCLP	Water - NonPotable	SW 8270C	12E0539_P
12E0539-BS1	Lab Control Sample	TCLP	Water - NonPotable	SW 8270C	12E0539_P
12E0539-MS1	Matrix Spike	TCLP	Water - NonPotable	SW 8270C	12E0539_P
12E0539-MSD1	Matrix Spike Duplicate	TCLP	Water - NonPotable	SW 8270C	12E0539_P

Analysis Batch: V000868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 8270C	12E0539_P
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 8270C	12E0539_P
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 8270C	12E0539_P
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 8270C	12E0539_P

Prep Batch: 12E0414_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0414-BLK1	Method Blank	Total	Solid/Soil	SW 3546 GCMS	
12E0414-BLK2	Method Blank	Total	Solid/Soil	SW 3546 GCMS	
12E0414-BS1	Lab Control Sample	Total	Solid/Soil	SW 3546 GCMS	
12E0414-BS3	Lab Control Sample	Total	Solid/Soil	SW 3546 GCMS	
12E0414-MS1	Matrix Spike	Total	Solid/Soil	SW 3546 GCMS	
12E0414-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 3546 GCMS	
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 3546 GCMS	
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 3546 GCMS	
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 3546 GCMS	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 3546 GCMS	

Prep Batch: 12E0539_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0539-BLK1	Method Blank	TCLP	Water - NonPotable	SW 3510C_MS_Leach	

GCMS Semivolatiles (Continued)

Prep Batch: 12E0539_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0539-BLK2	Method Blank	TCLP	Water - NonPotable	SW 3510C_MS_Leach	
12E0539-BLK3	Method Blank	TCLP	Water - NonPotable	SW 3510C_MS_Leach	
12E0539-BLK4	Method Blank	TCLP	Water - NonPotable	SW 3510C_MS_Leach	
12E0539-BS1	Lab Control Sample	TCLP	Water - NonPotable	SW 3510C_MS_Leach	
12E0539-MS1	Matrix Spike	TCLP	Water - NonPotable	SW 3510C_MS_Leach	
12E0539-MSD1	Matrix Spike Duplicate	TCLP	Water - NonPotable	SW 3510C_MS_Leach	
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 3510C_MS_Leach	12E0340
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 3510C_MS_Leach	12E0340
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 3510C_MS_Leach	12E0340
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 3510C_MS_Leach	12E0340

GC Semi VOA

Leach Batch: 149288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	1311	
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	1311	
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	1311	
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	1311	
LB 500-149288/1-B LB	Method Blank	TCLP	Solid	1311	

Prep Batch: 149617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	8151A	149288
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	8151A	149288
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	8151A	149288
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	8151A	149288
LB 500-149288/1-B LB	Method Blank	TCLP	Solid	8151A	149288
LCS 500-149617/2-A	Lab Control Sample	Total/NA	Solid	8151A	
MB 500-149617/1-A	Method Blank	Total/NA	Solid	8151A	

Analysis Batch: 149724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	8151	149617
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	8151	149617
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	8151	149617

GC Semi VOA (Continued)

Analysis Batch: 149724 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	8151	149617
LB 500-149288/1-B LB	Method Blank	TCLP	Solid	8151	149617
LCS 500-149617/2-A	Lab Control Sample	Total/NA	Solid	8151	149617
MB 500-149617/1-A	Method Blank	Total/NA	Solid	8151	149617

GC Semivolatiles

Leach Batch: 12E0340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	TCLP Extraction	
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	TCLP Extraction	
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	TCLP Extraction	
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	TCLP Extraction	

Analysis Batch: V000827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0412-BLK1	Method Blank	Total	Solid/Soil	OA-2 - 8015B	12E0412_P
12E0412-BS1	Lab Control Sample	Total	Solid/Soil	OA-2 - 8015B	12E0412_P
12E0412-MS1	SB-01(MIP-15) 31-33	Total	Solid/Soil	OA-2 - 8015B	12E0412_P
12E0412-MSD1	SB-01(MIP-15) 31-33	Total	Solid/Soil	OA-2 - 8015B	12E0412_P
CVE0494-04	SB-01(MIP-15) 31-33	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-05	SB-02(MIP-34) 02-04	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-08	SB-13(MIP-32) 01-03	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-09	SB-13(MIP-32) 04-06	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-11	SB-13(MIP-32) 16-18	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-12	SB-13(MIP-32) 26-28	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-15	SB-03(MIP-30) 02-04	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-17	SB-03(MIP-30) 16-18	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-18	SB-07(MIP-29) 02-04	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-19	SB-09(MIP-09) 03-05	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-20	SB-08(MIP-25) 02-04	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-21	Duplicate-2	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-22	SB-08(MIP-25) 10-12	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-24	SB-05(MIP-23) 06-08	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-25	SB-05(MIP-23) 12-14	Total	Soil	OA-2 - 8015B	12E0412_P

Analysis Batch: V000833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0361-BLK1	Method Blank	Total	Solid/Soil	OA-2 - 8015B	12E0361_P
12E0361-BS1	Lab Control Sample	Total	Solid/Soil	OA-2 - 8015B	12E0361_P
12E0361-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	OA-2 - 8015B	12E0361_P
CVE0494-01	SB-01(MIP-15) 02-04	Total	Soil	OA-2 - 8015B	12E0361_P
CVE0494-03	SB-01(MIP-15) 15-17	Total	Soil	OA-2 - 8015B	12E0361_P

Analysis Batch: V000846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-09 - RE1	SB-13(MIP-32) 04-06	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-10	SB-13(MIP-32) 10-12	Total	Soil	OA-2 - 8015B	12E0412_P
CVE0494-16 - RE1	SB-03(MIP-30) 06-08	Total	Soil	OA-2 - 8015B	12E0412_P

GC Semivolatiles (Continued)

Analysis Batch: V000852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0361-MS1	Matrix Spike	Total	Solid/Soil	OA-2 - 8015B	12E0361_P
CVE0494-01 - RE1	SB-01(MIP-15) 02-04	Total	Soil	OA-2 - 8015B	12E0361_P
CVE0494-02	SB-01(MIP-15) 07-09	Total	Soil	OA-2 - 8015B	12E0361_P

Analysis Batch: V000857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0474-BLK1	Method Blank	Total	Solid/Soil	OA-2 - 8015B	12E0474_P
12E0474-BS1	Lab Control Sample	Total	Solid/Soil	OA-2 - 8015B	12E0474_P
12E0474-MS1	SB-12(MIP-16a) 04-08	Total	Solid/Soil	OA-2 - 8015B	12E0474_P
12E0474-MSD1	SB-12(MIP-16a) 04-08	Total	Solid/Soil	OA-2 - 8015B	12E0474_P
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	OA-2 - 8015B	12E0474_P
CVE0494-27	Duplicate-3	Total	Soil	OA-2 - 8015B	12E0474_P
CVE0494-28	SB-12(MIP-16a) 10-12	Total	Soil	OA-2 - 8015B	12E0474_P
CVE0494-29	SB-03(MIP-30) 22-24	Total	Soil	OA-2 - 8015B	12E0474_P
CVE0494-30	SB-10(MIP-12) 05-07	Total	Soil	OA-2 - 8015B	12E0474_P
CVE0494-35	SB-04(LIF-06) 06-08	Total	Soil	OA-2 - 8015B	12E0474_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	OA-2 - 8015B	12E0474_P
CVE0494-37	SB-04(LIF-06) 16-18	Total	Soil	OA-2 - 8015B	12E0474_P

Analysis Batch: V000862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-26 - RE1	SB-12(MIP-16a) 04-08	Total	Soil	OA-2 - 8015B	12E0474_P
CVE0494-27 - RE1	Duplicate-3	Total	Soil	OA-2 - 8015B	12E0474_P
CVE0494-35 - RE1	SB-04(LIF-06) 06-08	Total	Soil	OA-2 - 8015B	12E0474_P

Analysis Batch: V000880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0475-BLK1	Method Blank	Total	Solid/Soil	SW 8082	12E0475_P
12E0475-BS1	Lab Control Sample	Total	Solid/Soil	SW 8082	12E0475_P
12E0475-MS1	SB-05(MIP-23) 02-04	Total	Solid/Soil	SW 8082	12E0475_P
12E0475-MSD1	SB-05(MIP-23) 02-04	Total	Solid/Soil	SW 8082	12E0475_P

Analysis Batch: V000883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 8082	12E0475_P
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 8082	12E0475_P
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 8082	12E0475_P
CVE0494-27	Duplicate-3	Total	Soil	SW 8082	12E0475_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 8082	12E0475_P

Analysis Batch: V000890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0476-BLK1	Method Blank	TCLP	Water - NonPotable	SW 8081B	12E0476_P
12E0476-BS1	Lab Control Sample	TCLP	Water - NonPotable	SW 8081B	12E0476_P
12E0476-BSD1	Lab Control Sample Dup	TCLP	Water - NonPotable	SW 8081B	12E0476_P
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 8081B	12E0476_P
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 8081B	12E0476_P
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 8081B	12E0476_P
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 8081B	12E0476_P

GC Semivolatiles (Continued)

Prep Batch: 12E0361_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0361-BLK1	Method Blank	Total	Solid/Soil	SW 3546 GC	
12E0361-BS1	Lab Control Sample	Total	Solid/Soil	SW 3546 GC	
12E0361-MS1	Matrix Spike	Total	Solid/Soil	SW 3546 GC	
12E0361-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 3546 GC	
CVE0494-01	SB-01(MIP-15) 02-04	Total	Soil	SW 3546 GC	
CVE0494-01 - RE1	SB-01(MIP-15) 02-04	Total	Soil	SW 3546 GC	
CVE0494-02	SB-01(MIP-15) 07-09	Total	Soil	SW 3546 GC	
CVE0494-03	SB-01(MIP-15) 15-17	Total	Soil	SW 3546 GC	

Prep Batch: 12E0412_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0412-BLK1	Method Blank	Total	Solid/Soil	SW 3546 GC	
12E0412-BS1	Lab Control Sample	Total	Solid/Soil	SW 3546 GC	
12E0412-MS1	SB-01(MIP-15) 31-33	Total	Solid/Soil	SW 3546 GC	
12E0412-MSD1	SB-01(MIP-15) 31-33	Total	Solid/Soil	SW 3546 GC	
CVE0494-04	SB-01(MIP-15) 31-33	Total	Soil	SW 3546 GC	
CVE0494-05	SB-02(MIP-34) 02-04	Total	Soil	SW 3546 GC	
CVE0494-08	SB-13(MIP-32) 01-03	Total	Soil	SW 3546 GC	
CVE0494-09	SB-13(MIP-32) 04-06	Total	Soil	SW 3546 GC	
CVE0494-09 - RE1	SB-13(MIP-32) 04-06	Total	Soil	SW 3546 GC	
CVE0494-10	SB-13(MIP-32) 10-12	Total	Soil	SW 3546 GC	
CVE0494-11	SB-13(MIP-32) 16-18	Total	Soil	SW 3546 GC	
CVE0494-12	SB-13(MIP-32) 26-28	Total	Soil	SW 3546 GC	
CVE0494-15	SB-03(MIP-30) 02-04	Total	Soil	SW 3546 GC	
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 3546 GC	
CVE0494-16 - RE1	SB-03(MIP-30) 06-08	Total	Soil	SW 3546 GC	
CVE0494-17	SB-03(MIP-30) 16-18	Total	Soil	SW 3546 GC	
CVE0494-18	SB-07(MIP-29) 02-04	Total	Soil	SW 3546 GC	
CVE0494-19	SB-09(MIP-09) 03-05	Total	Soil	SW 3546 GC	
CVE0494-20	SB-08(MIP-25) 02-04	Total	Soil	SW 3546 GC	
CVE0494-21	Duplicate-2	Total	Soil	SW 3546 GC	
CVE0494-22	SB-08(MIP-25) 10-12	Total	Soil	SW 3546 GC	
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 3546 GC	
CVE0494-24	SB-05(MIP-23) 06-08	Total	Soil	SW 3546 GC	
CVE0494-25	SB-05(MIP-23) 12-14	Total	Soil	SW 3546 GC	

Prep Batch: 12E0474_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0474-BLK1	Method Blank	Total	Solid/Soil	SW 3546 GC	
12E0474-BS1	Lab Control Sample	Total	Solid/Soil	SW 3546 GC	
12E0474-MS1	SB-12(MIP-16a) 04-08	Total	Solid/Soil	SW 3546 GC	
12E0474-MSD1	SB-12(MIP-16a) 04-08	Total	Solid/Soil	SW 3546 GC	
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 3546 GC	
CVE0494-26 - RE1	SB-12(MIP-16a) 04-08	Total	Soil	SW 3546 GC	
CVE0494-27	Duplicate-3	Total	Soil	SW 3546 GC	
CVE0494-27 - RE1	Duplicate-3	Total	Soil	SW 3546 GC	
CVE0494-28	SB-12(MIP-16a) 10-12	Total	Soil	SW 3546 GC	
CVE0494-29	SB-03(MIP-30) 22-24	Total	Soil	SW 3546 GC	
CVE0494-30	SB-10(MIP-12) 05-07	Total	Soil	SW 3546 GC	
CVE0494-35	SB-04(LIF-06) 06-08	Total	Soil	SW 3546 GC	
CVE0494-35 - RE1	SB-04(LIF-06) 06-08	Total	Soil	SW 3546 GC	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 3546 GC	

GC Semivolatiles (Continued)

Prep Batch: 12E0474_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-37	SB-04(LIF-06) 16-18	Total	Soil	SW 3546 GC	

Prep Batch: 12E0475_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0475-BLK1	Method Blank	Total	Solid/Soil	SW 3546 GC	
12E0475-BS1	Lab Control Sample	Total	Solid/Soil	SW 3546 GC	
12E0475-MS1	SB-05(MIP-23) 02-04	Total	Solid/Soil	SW 3546 GC	
12E0475-MSD1	SB-05(MIP-23) 02-04	Total	Solid/Soil	SW 3546 GC	
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 3546 GC	
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 3546 GC	
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 3546 GC	
CVE0494-27	Duplicate-3	Total	Soil	SW 3546 GC	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 3546 GC	

Prep Batch: 12E0476_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0476-BLK1	Method Blank	TCLP	Water - NonPotable	SW 3510C_GC_Leach	
12E0476-BS1	Lab Control Sample	TCLP	Water - NonPotable	SW 3510C_GC_Leach	
12E0476-BSD1	Lab Control Sample Dup	TCLP	Water - NonPotable	SW 3510C_GC_Leach	
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 3510C_GC_Leach	12E0340
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 3510C_GC_Leach	12E0340
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 3510C_GC_Leach	12E0340
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 3510C_GC_Leach	12E0340

Mercury

Leach Batch: 12E0340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	TCLP Extraction	
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	TCLP Extraction	
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	TCLP Extraction	
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	TCLP Extraction	

Analysis Batch: 12E0436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0436-BLK1	Method Blank	Total	Solid/Soil	SW 7471B	12E0436_P
12E0436-BS1	Lab Control Sample	Total	Solid/Soil	SW 7471B	12E0436_P
12E0436-MS1	Matrix Spike	Total	Solid/Soil	SW 7471B	12E0436_P
12E0436-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 7471B	12E0436_P
CVE0494-01	SB-01(MIP-15) 02-04	Total	Soil	SW 7471B	12E0436_P
CVE0494-02	SB-01(MIP-15) 07-09	Total	Soil	SW 7471B	12E0436_P

Mercury (Continued)

Analysis Batch: 12E0436 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-08	SB-13(MIP-32) 01-03	Total	Soil	SW 7471B	12E0436_P
CVE0494-09	SB-13(MIP-32) 04-06	Total	Soil	SW 7471B	12E0436_P
CVE0494-15	SB-03(MIP-30) 02-04	Total	Soil	SW 7471B	12E0436_P
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 7471B	12E0436_P
CVE0494-20	SB-08(MIP-25) 02-04	Total	Soil	SW 7471B	12E0436_P
CVE0494-21	Duplicate-2	Total	Soil	SW 7471B	12E0436_P
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 7471B	12E0436_P
CVE0494-24	SB-05(MIP-23) 06-08	Total	Soil	SW 7471B	12E0436_P
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 7471B	12E0436_P
CVE0494-27	Duplicate-3	Total	Soil	SW 7471B	12E0436_P
CVE0494-28	SB-12(MIP-16a) 10-12	Total	Soil	SW 7471B	12E0436_P
CVE0494-30	SB-10(MIP-12) 05-07	Total	Soil	SW 7471B	12E0436_P
CVE0494-35	SB-04(LIF-06) 06-08	Total	Soil	SW 7471B	12E0436_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 7471B	12E0436_P

Analysis Batch: 12E0604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0604-BLK1	Method Blank	TCLP	Solid/Soil	SW 7470A	12E0604_P
12E0604-BS1	Lab Control Sample	TCLP	Solid/Soil	SW 7470A	12E0604_P
12E0604-MS1	Matrix Spike	TCLP	Solid/Soil	SW 7470A	12E0604_P
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 7470A	12E0604_P
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 7470A	12E0604_P
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 7470A	12E0604_P
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 7470A	12E0604_P

Prep Batch: 12E0436_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0436-BLK1	Method Blank	Total	Solid/Soil	EPA 245.2/SW 7470A Prep	
12E0436-BS1	Lab Control Sample	Total	Solid/Soil	EPA 245.2/SW 7470A Prep	
12E0436-MS1	Matrix Spike	Total	Solid/Soil	EPA 245.2/SW 7470A Prep	
12E0436-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	EPA 245.2/SW 7470A Prep	
CVE0494-01	SB-01(MIP-15) 02-04	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-02	SB-01(MIP-15) 07-09	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-08	SB-13(MIP-32) 01-03	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-09	SB-13(MIP-32) 04-06	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-15	SB-03(MIP-30) 02-04	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-20	SB-08(MIP-25) 02-04	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-21	Duplicate-2	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-24	SB-05(MIP-23) 06-08	Total	Soil	EPA 245.2/SW 7470A Prep	

Mercury (Continued)

Prep Batch: 12E0436_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-27	Duplicate-3	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-28	SB-12(MIP-16a) 10-12	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-30	SB-10(MIP-12) 05-07	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-35	SB-04(LIF-06) 06-08	Total	Soil	EPA 245.2/SW 7470A Prep	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	EPA 245.2/SW 7470A Prep	

Prep Batch: 12E0604_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0604-BLK1	Method Blank	TCLP	Solid/Soil	EPA 245.2/SW 7470A Prep	
12E0604-BS1	Lab Control Sample	TCLP	Solid/Soil	EPA 245.2/SW 7470A Prep	
12E0604-MS1	Matrix Spike	TCLP	Solid/Soil	EPA 245.2/SW 7470A Prep	
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	EPA 245.2/SW 7470A Prep	12E0340
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	EPA 245.2/SW 7470A Prep	12E0340
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	EPA 245.2/SW 7470A Prep	12E0340
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	EPA 245.2/SW 7470A Prep	12E0340

Metals-ICP

Leach Batch: 12E0340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	TCLP Extraction	
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	TCLP Extraction	
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	TCLP Extraction	
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	TCLP Extraction	

Analysis Batch: 12E0421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0421-BLK1	Method Blank	Total	Solid/Soil	SW 6010C	12E0421_P
12E0421-BS1	Lab Control Sample	Total	Solid/Soil	SW 6010C	12E0421_P
12E0421-DUP1	SB-12(MIP-16a) 04-08	Total	Solid/Soil	SW 6010C	12E0421_P
12E0421-MS1	SB-01(MIP-15) 02-04	Total	Solid/Soil	SW 6010C	12E0421_P
12E0421-MS2	SB-05(MIP-23) 06-08	Total	Solid/Soil	SW 6010C	12E0421_P
12E0421-MSD1	SB-01(MIP-15) 02-04	Total	Solid/Soil	SW 6010C	12E0421_P
CVE0494-01	SB-01(MIP-15) 02-04	Total	Soil	SW 6010C	12E0421_P
CVE0494-02	SB-01(MIP-15) 07-09	Total	Soil	SW 6010C	12E0421_P
CVE0494-08	SB-13(MIP-32) 01-03	Total	Soil	SW 6010C	12E0421_P
CVE0494-09	SB-13(MIP-32) 04-06	Total	Soil	SW 6010C	12E0421_P
CVE0494-15	SB-03(MIP-30) 02-04	Total	Soil	SW 6010C	12E0421_P
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 6010C	12E0421_P
CVE0494-20	SB-08(MIP-25) 02-04	Total	Soil	SW 6010C	12E0421_P
CVE0494-21	Duplicate-2	Total	Soil	SW 6010C	12E0421_P

Metals-ICP (Continued)

Analysis Batch: 12E0421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 6010C	12E0421_P
CVE0494-24	SB-05(MIP-23) 06-08	Total	Soil	SW 6010C	12E0421_P
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 6010C	12E0421_P
CVE0494-27	Duplicate-3	Total	Soil	SW 6010C	12E0421_P
CVE0494-28	SB-12(MIP-16a) 10-12	Total	Soil	SW 6010C	12E0421_P
CVE0494-30	SB-10(MIP-12) 05-07	Total	Soil	SW 6010C	12E0421_P
CVE0494-35	SB-04(LIF-06) 06-08	Total	Soil	SW 6010C	12E0421_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 6010C	12E0421_P

Analysis Batch: 12E0479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0479-BLK1	Method Blank	TCLP	Solid/Soil	SW 6010C	12E0479_P
12E0479-BS1	Lab Control Sample	TCLP	Solid/Soil	SW 6010C	12E0479_P
12E0479-DUP1	Duplicate	TCLP	Solid/Soil	SW 6010C	12E0479_P
12E0479-MS1	Matrix Spike	TCLP	Solid/Soil	SW 6010C	12E0479_P
12E0479-MS2	Matrix Spike	TCLP	Solid/Soil	SW 6010C	12E0479_P
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 6010C	12E0479_P
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 6010C	12E0479_P
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 6010C	12E0479_P
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 6010C	12E0479_P

Prep Batch: 12E0421_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0421-BLK1	Method Blank	Total	Solid/Soil	SW 3050B	
12E0421-BS1	Lab Control Sample	Total	Solid/Soil	SW 3050B	
12E0421-DUP1	SB-12(MIP-16a) 04-08	Total	Solid/Soil	SW 3050B	
12E0421-MS1	SB-01(MIP-15) 02-04	Total	Solid/Soil	SW 3050B	
12E0421-MS2	SB-05(MIP-23) 06-08	Total	Solid/Soil	SW 3050B	
12E0421-MSD1	SB-01(MIP-15) 02-04	Total	Solid/Soil	SW 3050B	
CVE0494-01	SB-01(MIP-15) 02-04	Total	Soil	SW 3050B	
CVE0494-02	SB-01(MIP-15) 07-09	Total	Soil	SW 3050B	
CVE0494-08	SB-13(MIP-32) 01-03	Total	Soil	SW 3050B	
CVE0494-09	SB-13(MIP-32) 04-06	Total	Soil	SW 3050B	
CVE0494-15	SB-03(MIP-30) 02-04	Total	Soil	SW 3050B	
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 3050B	
CVE0494-20	SB-08(MIP-25) 02-04	Total	Soil	SW 3050B	
CVE0494-21	Duplicate-2	Total	Soil	SW 3050B	
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 3050B	
CVE0494-24	SB-05(MIP-23) 06-08	Total	Soil	SW 3050B	
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 3050B	
CVE0494-27	Duplicate-3	Total	Soil	SW 3050B	
CVE0494-28	SB-12(MIP-16a) 10-12	Total	Soil	SW 3050B	
CVE0494-30	SB-10(MIP-12) 05-07	Total	Soil	SW 3050B	
CVE0494-35	SB-04(LIF-06) 06-08	Total	Soil	SW 3050B	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 3050B	

Prep Batch: 12E0479_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0479-BLK1	Method Blank	TCLP	Solid/Soil	SW 3010A - TCLP	
12E0479-BS1	Lab Control Sample	TCLP	Solid/Soil	SW 3010A - TCLP	

Metals-ICP (Continued)

Prep Batch: 12E0479_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0479-DUP1	Duplicate	TCLP	Solid/Soil	SW 3010A - TCLP	
12E0479-MS1	Matrix Spike	TCLP	Solid/Soil	SW 3010A - TCLP	
12E0479-MS2	Matrix Spike	TCLP	Solid/Soil	SW 3010A - TCLP	
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 3010A - TCLP	12E0340
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 3010A - TCLP	12E0340
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 3010A - TCLP	12E0340
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 3010A - TCLP	12E0340

General Chemistry

Prep Batch: 149327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	Total/NA	Soil	9030B	
CVE0494-23	SB-05(MIP-23) 02-04	Total/NA	Soil	9030B	
CVE0494-26	SB-12(MIP-16a) 04-08	Total/NA	Soil	9030B	
CVE0494-36	SB-04(LIF-06) 10-12	Total/NA	Soil	9030B	
LCS 500-149327/2-A	Lab Control Sample	Total/NA	Solid	9030B	
MB 500-149327/1-A	Method Blank	Total/NA	Solid	9030B	

Analysis Batch: 149485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	Total/NA	Soil	9034	149327
CVE0494-23	SB-05(MIP-23) 02-04	Total/NA	Soil	9034	149327
CVE0494-26	SB-12(MIP-16a) 04-08	Total/NA	Soil	9034	149327
CVE0494-36	SB-04(LIF-06) 10-12	Total/NA	Soil	9034	149327
LCS 500-149327/2-A	Lab Control Sample	Total/NA	Solid	9034	149327
MB 500-149327/1-A	Method Blank	Total/NA	Solid	9034	149327

Prep Batch: 149680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-46172-8 MS	CVE0494-10	Total/NA	Solid	9071B	
500-46172-8 MSD	CVE0494-10	Total/NA	Solid	9071B	
CVE0494-01	SB-01(MIP-15) 02-04	Total/NA	Soil	9071B	
CVE0494-02	SB-01(MIP-15) 07-09	Total/NA	Soil	9071B	
CVE0494-03	SB-01(MIP-15) 15-17	Total/NA	Soil	9071B	
CVE0494-04	SB-01(MIP-15) 31-33	Total/NA	Soil	9071B	
CVE0494-05	SB-02(MIP-34) 02-04	Total/NA	Soil	9071B	
CVE0494-08	SB-13(MIP-32) 01-03	Total/NA	Soil	9071B	
CVE0494-09	SB-13(MIP-32) 04-06	Total/NA	Soil	9071B	
CVE0494-10	SB-13(MIP-32) 10-12	Total/NA	Soil	9071B	
CVE0494-11	SB-13(MIP-32) 16-18	Total/NA	Soil	9071B	
CVE0494-12	SB-13(MIP-32) 26-28	Total/NA	Soil	9071B	
CVE0494-15	SB-03(MIP-30) 02-04	Total/NA	Soil	9071B	
CVE0494-16	SB-03(MIP-30) 06-08	Total/NA	Soil	9071B	
CVE0494-17	SB-03(MIP-30) 16-18	Total/NA	Soil	9071B	
LCS 500-149680/2-A	Lab Control Sample	Total/NA	Solid	9071B	
MB 500-149680/1-A	Method Blank	Total/NA	Solid	9071B	

General Chemistry (Continued)

Analysis Batch: 149727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-46172-8 MS	CVE0494-10	Total/NA	Solid	9071B	149680
500-46172-8 MSD	CVE0494-10	Total/NA	Solid	9071B	149680
CVE0494-01	SB-01(MIP-15) 02-04	Total/NA	Soil	9071B	149680
CVE0494-02	SB-01(MIP-15) 07-09	Total/NA	Soil	9071B	149680
CVE0494-03	SB-01(MIP-15) 15-17	Total/NA	Soil	9071B	149680
CVE0494-04	SB-01(MIP-15) 31-33	Total/NA	Soil	9071B	149680
CVE0494-05	SB-02(MIP-34) 02-04	Total/NA	Soil	9071B	149680
CVE0494-08	SB-13(MIP-32) 01-03	Total/NA	Soil	9071B	149680
CVE0494-09	SB-13(MIP-32) 04-06	Total/NA	Soil	9071B	149680
CVE0494-10	SB-13(MIP-32) 10-12	Total/NA	Soil	9071B	149680
CVE0494-11	SB-13(MIP-32) 16-18	Total/NA	Soil	9071B	149680
CVE0494-12	SB-13(MIP-32) 26-28	Total/NA	Soil	9071B	149680
CVE0494-15	SB-03(MIP-30) 02-04	Total/NA	Soil	9071B	149680
CVE0494-16	SB-03(MIP-30) 06-08	Total/NA	Soil	9071B	149680
CVE0494-17	SB-03(MIP-30) 16-18	Total/NA	Soil	9071B	149680
LCS 500-149680/2-A	Lab Control Sample	Total/NA	Solid	9071B	149680
MB 500-149680/1-A	Method Blank	Total/NA	Solid	9071B	149680

Analysis Batch: 149760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-01	SB-01(MIP-15) 02-04	Total/NA	Soil	Moisture	
CVE0494-02	SB-01(MIP-15) 07-09	Total/NA	Soil	Moisture	
CVE0494-03	SB-01(MIP-15) 15-17	Total/NA	Soil	Moisture	
CVE0494-04	SB-01(MIP-15) 31-33	Total/NA	Soil	Moisture	
CVE0494-05	SB-02(MIP-34) 02-04	Total/NA	Soil	Moisture	
CVE0494-08	SB-13(MIP-32) 01-03	Total/NA	Soil	Moisture	
CVE0494-09	SB-13(MIP-32) 04-06	Total/NA	Soil	Moisture	
CVE0494-10	SB-13(MIP-32) 10-12	Total/NA	Soil	Moisture	
CVE0494-11	SB-13(MIP-32) 16-18	Total/NA	Soil	Moisture	
CVE0494-12	SB-13(MIP-32) 26-28	Total/NA	Soil	Moisture	
CVE0494-15	SB-03(MIP-30) 02-04	Total/NA	Soil	Moisture	
CVE0494-16	SB-03(MIP-30) 06-08	Total/NA	Soil	Moisture	
CVE0494-17	SB-03(MIP-30) 16-18	Total/NA	Soil	Moisture	
CVE0494-18	SB-07(MIP-29) 02-04	Total/NA	Soil	Moisture	
CVE0494-19	SB-09(MIP-09) 03-05	Total/NA	Soil	Moisture	
CVE0494-20	SB-08(MIP-25) 02-04	Total/NA	Soil	Moisture	
CVE0494-21	Duplicate-2	Total/NA	Soil	Moisture	
CVE0494-22	SB-08(MIP-25) 10-12	Total/NA	Soil	Moisture	
CVE0494-23	SB-05(MIP-23) 02-04	Total/NA	Soil	Moisture	
CVE0494-24	SB-05(MIP-23) 06-08	Total/NA	Soil	Moisture	
CVE0494-25	SB-05(MIP-23) 12-14	Total/NA	Soil	Moisture	
CVE0494-26	SB-12(MIP-16a) 04-08	Total/NA	Soil	Moisture	
CVE0494-27	Duplicate-3	Total/NA	Soil	Moisture	
CVE0494-28	SB-12(MIP-16a) 10-12	Total/NA	Soil	Moisture	
CVE0494-29	SB-03(MIP-30) 22-24	Total/NA	Soil	Moisture	
CVE0494-30	SB-10(MIP-12) 05-07	Total/NA	Soil	Moisture	
CVE0494-35	SB-04(LIF-06) 06-08	Total/NA	Soil	Moisture	
CVE0494-36	SB-04(LIF-06) 10-12	Total/NA	Soil	Moisture	
CVE0494-37	SB-04(LIF-06) 16-18	Total/NA	Soil	Moisture	

General Chemistry (Continued)

Prep Batch: 149939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-46172-14 MS	CVE0494-18	Total/NA	Solid	9071B	
500-46172-14 MSD	CVE0494-18	Total/NA	Solid	9071B	
CVE0494-18	SB-07(MIP-29) 02-04	Total/NA	Soil	9071B	
CVE0494-19	SB-09(MIP-09) 03-05	Total/NA	Soil	9071B	
CVE0494-20	SB-08(MIP-25) 02-04	Total/NA	Soil	9071B	
CVE0494-21	Duplicate-2	Total/NA	Soil	9071B	
CVE0494-22	SB-08(MIP-25) 10-12	Total/NA	Soil	9071B	
CVE0494-23	SB-05(MIP-23) 02-04	Total/NA	Soil	9071B	
CVE0494-24	SB-05(MIP-23) 06-08	Total/NA	Soil	9071B	
CVE0494-25	SB-05(MIP-23) 12-14	Total/NA	Soil	9071B	
CVE0494-26	SB-12(MIP-16a) 04-08	Total/NA	Soil	9071B	
CVE0494-27	Duplicate-3	Total/NA	Soil	9071B	
CVE0494-28	SB-12(MIP-16a) 10-12	Total/NA	Soil	9071B	
CVE0494-29	SB-03(MIP-30) 22-24	Total/NA	Soil	9071B	
CVE0494-30	SB-10(MIP-12) 05-07	Total/NA	Soil	9071B	
CVE0494-35	SB-04(LIF-06) 06-08	Total/NA	Soil	9071B	
CVE0494-36	SB-04(LIF-06) 10-12	Total/NA	Soil	9071B	
CVE0494-37	SB-04(LIF-06) 16-18	Total/NA	Soil	9071B	
LCS 500-149939/2-A	Lab Control Sample	Total/NA	Solid	9071B	
MB 500-149939/1-A	Method Blank	Total/NA	Solid	9071B	

Analysis Batch: 149964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-46172-14 MS	CVE0494-18	Total/NA	Solid	9071B	149939
500-46172-14 MSD	CVE0494-18	Total/NA	Solid	9071B	149939
CVE0494-18	SB-07(MIP-29) 02-04	Total/NA	Soil	9071B	149939
CVE0494-19	SB-09(MIP-09) 03-05	Total/NA	Soil	9071B	149939
CVE0494-20	SB-08(MIP-25) 02-04	Total/NA	Soil	9071B	149939
CVE0494-21	Duplicate-2	Total/NA	Soil	9071B	149939
CVE0494-22	SB-08(MIP-25) 10-12	Total/NA	Soil	9071B	149939
CVE0494-23	SB-05(MIP-23) 02-04	Total/NA	Soil	9071B	149939
CVE0494-24	SB-05(MIP-23) 06-08	Total/NA	Soil	9071B	149939
CVE0494-25	SB-05(MIP-23) 12-14	Total/NA	Soil	9071B	149939
CVE0494-26	SB-12(MIP-16a) 04-08	Total/NA	Soil	9071B	149939
CVE0494-27	Duplicate-3	Total/NA	Soil	9071B	149939
CVE0494-28	SB-12(MIP-16a) 10-12	Total/NA	Soil	9071B	149939
CVE0494-29	SB-03(MIP-30) 22-24	Total/NA	Soil	9071B	149939
CVE0494-30	SB-10(MIP-12) 05-07	Total/NA	Soil	9071B	149939
CVE0494-35	SB-04(LIF-06) 06-08	Total/NA	Soil	9071B	149939
CVE0494-36	SB-04(LIF-06) 10-12	Total/NA	Soil	9071B	149939
CVE0494-37	SB-04(LIF-06) 16-18	Total/NA	Soil	9071B	149939
LCS 500-149939/2-A	Lab Control Sample	Total/NA	Solid	9071B	149939
MB 500-149939/1-A	Method Blank	Total/NA	Solid	9071B	149939

WetChem

Analysis Batch: 12E0441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0441-DUP1	SB-01(MIP-15) 02-04	Total	Solid/Soil	SM 2540 G	12E0441_P
12E0441-DUP2	SB-13(MIP-32) 10-12	Total	Solid/Soil	SM 2540 G	12E0441_P
CVE0494-01	SB-01(MIP-15) 02-04	Total	Soil	SM 2540 G	12E0441_P
CVE0494-02	SB-01(MIP-15) 07-09	Total	Soil	SM 2540 G	12E0441_P

WetChem (Continued)

Analysis Batch: 12E0441 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-03	SB-01(MIP-15) 15-17	Total	Soil	SM 2540 G	12E0441_P
CVE0494-04	SB-01(MIP-15) 31-33	Total	Soil	SM 2540 G	12E0441_P
CVE0494-05	SB-02(MIP-34) 02-04	Total	Soil	SM 2540 G	12E0441_P
CVE0494-06	SB-02(MIP-34) 14-16	Total	Soil	SM 2540 G	12E0441_P
CVE0494-07	SB-02(MIP-34) 28-30	Total	Soil	SM 2540 G	12E0441_P
CVE0494-08	SB-13(MIP-32) 01-03	Total	Soil	SM 2540 G	12E0441_P
CVE0494-09	SB-13(MIP-32) 04-06	Total	Soil	SM 2540 G	12E0441_P
CVE0494-10	SB-13(MIP-32) 10-12	Total	Soil	SM 2540 G	12E0441_P
CVE0494-11	SB-13(MIP-32) 16-18	Total	Soil	SM 2540 G	12E0441_P
CVE0494-12	SB-13(MIP-32) 26-28	Total	Soil	SM 2540 G	12E0441_P
CVE0494-13	SB-11(MIP-02) 14-16	Total	Soil	SM 2540 G	12E0441_P
CVE0494-14	SB-11(MIP-02) 18-20	Total	Soil	SM 2540 G	12E0441_P
CVE0494-15	SB-03(MIP-30) 02-04	Total	Soil	SM 2540 G	12E0441_P
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SM 2540 G	12E0441_P
CVE0494-17	SB-03(MIP-30) 16-18	Total	Soil	SM 2540 G	12E0441_P
CVE0494-18	SB-07(MIP-29) 02-04	Total	Soil	SM 2540 G	12E0441_P
CVE0494-19	SB-09(MIP-09) 03-05	Total	Soil	SM 2540 G	12E0441_P
CVE0494-20	SB-08(MIP-25) 02-04	Total	Soil	SM 2540 G	12E0441_P

Analysis Batch: 12E0442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0442-DUP1	Duplicate-2	Total	Solid/Soil	SM 2540 G	12E0442_P
12E0442-DUP2	SB-06(MIP-27) 06-08	Total	Solid/Soil	SM 2540 G	12E0442_P
CVE0494-21	Duplicate-2	Total	Soil	SM 2540 G	12E0442_P
CVE0494-22	SB-08(MIP-25) 10-12	Total	Soil	SM 2540 G	12E0442_P
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SM 2540 G	12E0442_P
CVE0494-24	SB-05(MIP-23) 06-08	Total	Soil	SM 2540 G	12E0442_P
CVE0494-25	SB-05(MIP-23) 12-14	Total	Soil	SM 2540 G	12E0442_P
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SM 2540 G	12E0442_P
CVE0494-27	Duplicate-3	Total	Soil	SM 2540 G	12E0442_P
CVE0494-28	SB-12(MIP-16a) 10-12	Total	Soil	SM 2540 G	12E0442_P
CVE0494-29	SB-03(MIP-30) 22-24	Total	Soil	SM 2540 G	12E0442_P
CVE0494-30	SB-10(MIP-12) 05-07	Total	Soil	SM 2540 G	12E0442_P
CVE0494-31	SB-10(MIP-12) 16-18	Total	Soil	SM 2540 G	12E0442_P
CVE0494-32	SB-06(MIP-27) 06-08	Total	Soil	SM 2540 G	12E0442_P
CVE0494-33	Duplicate-1	Total	Soil	SM 2540 G	12E0442_P
CVE0494-34	SB-06(MIP-27) 20-22	Total	Soil	SM 2540 G	12E0442_P
CVE0494-35	SB-04(LIF-06) 06-08	Total	Soil	SM 2540 G	12E0442_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SM 2540 G	12E0442_P
CVE0494-37	SB-04(LIF-06) 16-18	Total	Soil	SM 2540 G	12E0442_P

Analysis Batch: 12E0598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0598-BS1	Lab Control Sample	Total	Solid/Soil	SW 9045D	12E0598_P
12E0598-DUP1	Duplicate	Total	Solid/Soil	SW 9045D	12E0598_P
12E0598-DUP2	Duplicate	Total	Solid/Soil	SW 9045D	12E0598_P
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 9045D	12E0598_P
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 9045D	12E0598_P
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 9045D	12E0598_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 9045D	12E0598_P

WetChem (Continued)

Analysis Batch: 12E0746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0746-BLK1	Method Blank	Total	Solid/Soil	SW 9012A Mod	12E0746_P
12E0746-BS1	Lab Control Sample	Total	Solid/Soil	SW 9012A Mod	12E0746_P
12E0746-MS1	SB-03(MIP-30) 06-08	Total	Solid/Soil	SW 9012A Mod	12E0746_P
12E0746-MSD1	SB-03(MIP-30) 06-08	Total	Solid/Soil	SW 9012A Mod	12E0746_P
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 9012A Mod	12E0746_P
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 9012A Mod	12E0746_P
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 9012A Mod	12E0746_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 9012A Mod	12E0746_P

Analysis Batch: 12E0793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0793-DUP1	Duplicate	Total	Solid/Soil	ASTM D92	12E0793_P
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	ASTM D92	12E0793_P
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	ASTM D92	12E0793_P
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	ASTM D92	12E0793_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	ASTM D92	12E0793_P

Prep Batch: 12E0441_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0441-DUP1	SB-01(MIP-15) 02-04	Total	Solid/Soil	Solids - Solid/Soil	
12E0441-DUP2	SB-13(MIP-32) 10-12	Total	Solid/Soil	Solids - Solid/Soil	
CVE0494-01	SB-01(MIP-15) 02-04	Total	Soil	Solids - Solid/Soil	
CVE0494-02	SB-01(MIP-15) 07-09	Total	Soil	Solids - Solid/Soil	
CVE0494-03	SB-01(MIP-15) 15-17	Total	Soil	Solids - Solid/Soil	
CVE0494-04	SB-01(MIP-15) 31-33	Total	Soil	Solids - Solid/Soil	
CVE0494-05	SB-02(MIP-34) 02-04	Total	Soil	Solids - Solid/Soil	
CVE0494-06	SB-02(MIP-34) 14-16	Total	Soil	Solids - Solid/Soil	
CVE0494-07	SB-02(MIP-34) 28-30	Total	Soil	Solids - Solid/Soil	
CVE0494-08	SB-13(MIP-32) 01-03	Total	Soil	Solids - Solid/Soil	
CVE0494-09	SB-13(MIP-32) 04-06	Total	Soil	Solids - Solid/Soil	
CVE0494-10	SB-13(MIP-32) 10-12	Total	Soil	Solids - Solid/Soil	
CVE0494-11	SB-13(MIP-32) 16-18	Total	Soil	Solids - Solid/Soil	
CVE0494-12	SB-13(MIP-32) 26-28	Total	Soil	Solids - Solid/Soil	
CVE0494-13	SB-11(MIP-02) 14-16	Total	Soil	Solids - Solid/Soil	
CVE0494-14	SB-11(MIP-02) 18-20	Total	Soil	Solids - Solid/Soil	
CVE0494-15	SB-03(MIP-30) 02-04	Total	Soil	Solids - Solid/Soil	
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	Solids - Solid/Soil	
CVE0494-17	SB-03(MIP-30) 16-18	Total	Soil	Solids - Solid/Soil	

WetChem (Continued)

Prep Batch: 12E0441_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-18	SB-07(MIP-29) 02-04	Total	Soil	Solids - Solid/Soil	
CVE0494-19	SB-09(MIP-09) 03-05	Total	Soil	Solids - Solid/Soil	
CVE0494-20	SB-08(MIP-25) 02-04	Total	Soil	Solids - Solid/Soil	

Prep Batch: 12E0442_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0442-DUP1	Duplicate-2	Total	Solid/Soil	Solids - Solid/Soil	
12E0442-DUP2	SB-06(MIP-27) 06-08	Total	Solid/Soil	Solids - Solid/Soil	
CVE0494-21	Duplicate-2	Total	Soil	Solids - Solid/Soil	
CVE0494-22	SB-08(MIP-25) 10-12	Total	Soil	Solids - Solid/Soil	
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	Solids - Solid/Soil	
CVE0494-24	SB-05(MIP-23) 06-08	Total	Soil	Solids - Solid/Soil	
CVE0494-25	SB-05(MIP-23) 12-14	Total	Soil	Solids - Solid/Soil	
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	Solids - Solid/Soil	
CVE0494-27	Duplicate-3	Total	Soil	Solids - Solid/Soil	
CVE0494-28	SB-12(MIP-16a) 10-12	Total	Soil	Solids - Solid/Soil	
CVE0494-29	SB-03(MIP-30) 22-24	Total	Soil	Solids - Solid/Soil	
CVE0494-30	SB-10(MIP-12) 05-07	Total	Soil	Solids - Solid/Soil	
CVE0494-31	SB-10(MIP-12) 16-18	Total	Soil	Solids - Solid/Soil	
CVE0494-32	SB-06(MIP-27) 06-08	Total	Soil	Solids - Solid/Soil	
CVE0494-33	Duplicate-1	Total	Soil	Solids - Solid/Soil	
CVE0494-34	SB-06(MIP-27) 20-22	Total	Soil	Solids - Solid/Soil	
CVE0494-35	SB-04(LIF-06) 06-08	Total	Soil	Solids - Solid/Soil	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	Solids - Solid/Soil	
CVE0494-37	SB-04(LIF-06) 16-18	Total	Soil	Solids - Solid/Soil	

Prep Batch: 12E0598_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0598-BS1	Lab Control Sample	Total	Solid/Soil	NO PREP - WET CHEM	
12E0598-DUP1	Duplicate	Total	Solid/Soil	NO PREP - WET CHEM	
12E0598-DUP2	Duplicate	Total	Solid/Soil	NO PREP - WET CHEM	
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	NO PREP - WET CHEM	

WetChem (Continued)

Prep Batch: 12E0598_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	NO PREP - WET CHEM	
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	NO PREP - WET CHEM	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	NO PREP - WET CHEM	

Prep Batch: 12E0746_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0746-BLK1	Method Blank	Total	Solid/Soil	NO PREP - WET CHEM	
12E0746-BS1	Lab Control Sample	Total	Solid/Soil	NO PREP - WET CHEM	
12E0746-MS1	SB-03(MIP-30) 06-08	Total	Solid/Soil	NO PREP - WET CHEM	
12E0746-MSD1	SB-03(MIP-30) 06-08	Total	Solid/Soil	NO PREP - WET CHEM	
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	NO PREP - WET CHEM	
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	NO PREP - WET CHEM	
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	NO PREP - WET CHEM	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	NO PREP - WET CHEM	

Prep Batch: 12E0793_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0793-DUP1	Duplicate	Total	Solid/Soil	NO PREP - WET CHEM	
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	NO PREP - WET CHEM	
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	NO PREP - WET CHEM	
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	NO PREP - WET CHEM	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	NO PREP - WET CHEM	

Extractions

Analysis Batch: 12E0340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 1311	12E0340_P
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 1311	12E0340_P
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 1311	12E0340_P
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 1311	12E0340_P

Analysis Batch: 12E0466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 1311	12E0466_P
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 1311	12E0466_P
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 1311	12E0466_P
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 1311	12E0466_P

QC Association Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Extractions (Continued)

Prep Batch: 12E0340_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	TCLP	Soil	SW 1311	
CVE0494-23	SB-05(MIP-23) 02-04	TCLP	Soil	SW 1311	
CVE0494-26	SB-12(MIP-16a) 04-08	TCLP	Soil	SW 1311	
CVE0494-36	SB-04(LIF-06) 10-12	TCLP	Soil	SW 1311	

Prep Batch: 12E0466_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVE0494-16	SB-03(MIP-30) 06-08	Total	Soil	SW 1311 - ZHE	
CVE0494-23	SB-05(MIP-23) 02-04	Total	Soil	SW 1311 - ZHE	
CVE0494-26	SB-12(MIP-16a) 04-08	Total	Soil	SW 1311 - ZHE	
CVE0494-36	SB-04(LIF-06) 10-12	Total	Soil	SW 1311 - ZHE	

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 02-04

Lab Sample ID: CVE0494-01

Date Collected: 05/03/12 13:25
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.861	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 12:38	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.985	12E0361_P	05/07/12 12:01	EEE	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000833	05/10/12 03:48	MXG	TAL CF
Total	Prep	SW 3546 GC	RE1	0.985	12E0361_P	05/07/12 12:01	EEE	TAL CF
Total	Analysis	OA-2 - 8015B	RE1	3.00	V000852	05/11/12 21:05	MXG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.985	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 15:58	CJT	TAL CF
Total	Prep	SW 3050B		0.958	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:11	SNS	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 11:58	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-01(MIP-15) 07-09

Lab Sample ID: CVE0494-02

Date Collected: 05/03/12 13:30
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.776	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 13:01	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.965	12E0361_P	05/07/12 12:01	EEE	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000852	05/11/12 20:23	MXG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.916	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:00	CJT	TAL CF
Total	Prep	SW 3050B		0.986	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:22	SNS	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 12:04	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-01(MIP-15) 15-17

Lab Sample ID: CVE0494-03

Date Collected: 05/03/12 13:40
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.862	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 13:24	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.971	12E0361_P	05/07/12 12:01	EEE	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-01(MIP-15) 15-17 — Lab Sample ID: CVE0494-03

Date Collected: 05/03/12 13:40 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 87.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	OA-2 - 8015B		1.00	V000833	05/10/12 05:11	MXG	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 12:09	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-01(MIP-15) 31-33 — Lab Sample ID: CVE0494-04

Date Collected: 05/03/12 13:55 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 88.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.754	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 13:47	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.973	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 13:06	MXG	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 12:15	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-02(MIP-34) 02-04 — Lab Sample ID: CVE0494-05

Date Collected: 05/03/12 14:50 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 85.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 3546 GC		0.973	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 13:47	MXG	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 12:20	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-02(MIP-34) 14-16 — Lab Sample ID: CVE0494-06

Date Collected: 05/03/12 15:00 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 87.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.744	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 14:10	ZTB	TAL CF
Total	Prep	SW 5035	RE1	0.744	12E0839_P	05/15/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B	RE1	1000	12E0839	05/15/12 17:56	ZTB	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-02(MIP-34) 14-16 — Lab Sample ID: CVE0494-06

Date Collected: 05/03/12 15:00 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 87.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-02(MIP-34) 28-30 — Lab Sample ID: CVE0494-07

Date Collected: 05/03/12 15:15 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 88.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.807	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 14:33	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-13(MIP-32) 01-03 — Lab Sample ID: CVE0494-08

Date Collected: 05/03/12 15:30 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 79.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.919	12E0709_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0709	05/12/12 14:57	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.994	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 14:28	SYSTE	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.952	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:02	CJT	TAL CF
Total	Prep	SW 3050B		0.957	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:24	SNS	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 12:25	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-13(MIP-32) 04-06 — Lab Sample ID: CVE0494-09

Date Collected: 05/03/12 15:35 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.862	12E0868_P	05/16/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0868	05/16/12 13:03	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.993	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/10/12 00:51	MXG	TAL CF
Total	Prep	SW 3546 GC	RE1	0.993	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B	RE1	25.0	V000846	05/10/12 16:07	MXG	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 04-06

Lab Sample ID: CVE0494-09

Date Collected: 05/03/12 15:35
Date Received: 05/04/12 19:30

Matrix: Soil
Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 245.2/SW 7470A Prep		0.984	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:04	CJT	TAL CF
Total	Prep	SW 3050B		0.945	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		3.00	12E0421	05/14/12 14:44	CJT	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 12:31	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-13(MIP-32) 10-12

Lab Sample ID: CVE0494-10

Date Collected: 05/03/12 15:40
Date Received: 05/04/12 19:30

Matrix: Soil
Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.858	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 18:25	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.972	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000846	05/10/12 18:11	MXG	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 12:36	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-13(MIP-32) 16-18

Lab Sample ID: CVE0494-11

Date Collected: 05/03/12 15:50
Date Received: 05/04/12 19:30

Matrix: Soil
Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.819	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 18:48	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.996	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 15:51	MXG	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 12:52	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-13(MIP-32) 26-28 — Lab Sample ID: CVE0494-12

Date Collected: 05/03/12 16:00 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 87.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.855	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 19:11	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.990	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 16:33	MXG	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 12:58	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-11(MIP-02) 14-16 — Lab Sample ID: CVE0494-13

Date Collected: 05/03/12 16:35 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 86.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.753	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 19:35	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-11(MIP-02) 18-20 — Lab Sample ID: CVE0494-14

Date Collected: 05/03/12 16:35 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 87.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.841	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 19:57	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-03(MIP-30) 02-04 — Lab Sample ID: CVE0494-15

Date Collected: 05/03/12 17:15 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 81.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.973	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 20:21	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.967	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/10/12 00:09	MXG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.987	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:05	CJT	TAL CF
Total	Prep	SW 3050B		0.974	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:27	SNS	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI

Client Sample ID: SB-03(MIP-30) 02-04

Lab Sample ID: CVE0494-15

Date Collected: 05/03/12 17:15

Matrix: Soil

Date Received: 05/04/12 19:30

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9071B		1	149727	05/15/12 13:03	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-03(MIP-30) 06-08

Lab Sample ID: CVE0494-16

Date Collected: 05/03/12 17:25

Matrix: Soil

Date Received: 05/04/12 19:30

Percent Solids: 78.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	TCLP Extraction		20.0	12E0466	05/09/12 09:45	JDB	TAL CF
TCLP	Prep	SW 5030B		1.00	12E0602_P	05/10/12 00:00	SJN	TAL CF
TCLP	Analysis	SW 1311/8260B		20.0	12E0602	05/10/12 20:25	SJN	TAL CF
Total	Prep	SW 5035		0.913	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 20:44	ZTB	TAL CF
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW		1.00	12E0539_P	05/10/12 11:04	EEE	TAL CF
TCLP	Analysis	3510C_MS_Leach SW 8270C		1.00	V000868	05/15/12 16:47	DMD	TAL CF
Total	Prep	SW 3546 GCMS		2.43	12E0414_P	05/08/12 10:17	AM	TAL CF
Total	Analysis	SW 8270D		1.00	V000829	05/09/12 21:40	DMD	TAL CF
TCLP	Leach	1311			149288	05/07/12 08:00	DAK	TAL CHI
TCLP	Prep	8151A			149617	05/14/12 08:54	AD	TAL CHI
TCLP	Analysis	8151		1	149724	05/15/12 14:47	PMF	TAL CHI
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW		0.333	12E0476_P	05/09/12 10:48	AM	TAL CF
TCLP	Analysis	3510C_GC_Leach SW 8081B		1.00	V000890	05/16/12 18:48	DLK	TAL CF
Total	Prep	SW 3546 GC		2.38	12E0475_P	05/09/12 10:43	AM	TAL CF
Total	Analysis	SW 8082		1.00	V000883	05/17/12 11:14	TCH	TAL CF
Total	Prep	SW 3546 GC		0.976	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 17:14	MXG	TAL CF
Total	Prep	SW 3546 GC	RE1	0.976	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B	RE1	5.00	V000846	05/10/12 14:09	MXG	TAL CF
TCLP	Prep	EPA 245.2/SW		1.00	12E0604_P	05/10/12 16:00	MRH	TAL CF
TCLP	Analysis	7470A Prep SW 7470A		1.00	12E0604	05/11/12 11:39	CJT	TAL CF
Total	Prep	EPA 245.2/SW		0.908	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	7470A Prep SW 7471B		1.00	12E0436	05/08/12 16:07	CJT	TAL CF
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW 3010A - TCLP		1.00	12E0479_P	05/09/12 13:10	CJT	TAL CF
TCLP	Analysis	SW 6010C		1.00	12E0479	05/10/12 20:45	SNS	TAL CF
Total	Prep	SW 3050B		0.980	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:29	SNS	TAL CF
Total/NA	Prep	9030B			149327	05/10/12 17:20	CLM	TAL CHI
Total/NA	Analysis	9034		1	149485	05/11/12 10:18	CLM	TAL CHI

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 06-08 — Lab Sample ID: CVE0494-16

Date Collected: 05/03/12 17:25 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 78.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 13:09	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Prep	NO PREP - WET CHEM		0.939	12E0746_P	05/14/12 19:30	LBB	TAL CF
Total	Analysis	SW 9012A Mod		1.00	12E0746	05/14/12 21:45	JMH	TAL CF
Total	Prep	NO PREP - WET CHEM			12E0793_P	05/15/12 15:15	JCF	TAL CF
Total	Analysis	ASTM D92		1.00	12E0793	05/15/12 15:17	JCF	TAL CF
Total	Analysis	SW 9045D		1.00	12E0598	05/10/12 15:43	SAS	TAL CF
Total	Prep	NO PREP - WET CHEM			12E0598_P	05/10/12 15:43	SAS	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF
TCLP	Prep	SW 1311			12E0340_P	05/07/12 16:00	JDB	TAL CF
TCLP	Analysis	SW 1311		1.00	12E0340	05/08/12 09:59	JDB	TAL CF
Total	Prep	SW 1311 - ZHE			12E0466_P	05/09/12 09:45	JDB	TAL CF
Total	Analysis	SW 1311		1.00	12E0466	05/10/12 09:56	JDB	TAL CF

Client Sample ID: SB-03(MIP-30) 16-18 — Lab Sample ID: CVE0494-17

Date Collected: 05/03/12 17:50 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 86.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.733	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 21:07	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.989	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 17:56	MXG	TAL CF
Total/NA	Prep	9071B			149680	05/15/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149727	05/15/12 13:14	MTB	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-07(MIP-29) 02-04 — Lab Sample ID: CVE0494-18

Date Collected: 05/03/12 19:05 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 83**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 3546 GC		0.986	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 18:37	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 11:37	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-07(MIP-29) 02-04 — Lab Sample ID: CVE0494-18

Date Collected: 05/03/12 19:05 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 83**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-09(MIP-09) 03-05 — Lab Sample ID: CVE0494-19

Date Collected: 05/03/12 19:25 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 82.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 3546 GC		0.967	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 19:18	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 12:02	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: SB-08(MIP-25) 02-04 — Lab Sample ID: CVE0494-20

Date Collected: 05/03/12 19:50 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 82.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.816	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 21:30	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.996	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 20:00	MXG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.963	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:09	CJT	TAL CF
Total	Prep	SW 3050B		0.993	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		3.00	12E0421	05/14/12 14:46	CJT	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 12:11	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0441	05/08/12 15:14	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0441_P	05/08/12 15:14	RAK	TAL CF

Client Sample ID: Duplicate-2 — Lab Sample ID: CVE0494-21

Date Collected: 05/03/12 00:00 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 82.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.801	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 21:53	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.972	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 20:41	MXG	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Duplicate-2

Lab Sample ID: CVE0494-21

Date Collected: 05/03/12 00:00
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 245.2/SW 7470A Prep		0.926	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:11	CJT	TAL CF
Total	Prep	SW 3050B		0.930	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		3.00	12E0421	05/14/12 14:47	CJT	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 12:19	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-08(MIP-25) 10-12

Lab Sample ID: CVE0494-22

Date Collected: 05/03/12 20:05
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		1.01	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 22:16	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.989	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 21:22	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 12:28	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-05(MIP-23) 02-04

Lab Sample ID: CVE0494-23

Date Collected: 05/04/12 08:50
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	TCLP Extraction		20.0	12E0466	05/09/12 09:45	JDB	TAL CF
TCLP	Prep	SW 5030B		1.00	12E0602_P	05/10/12 00:00	SJN	TAL CF
TCLP	Analysis	SW 1311/8260B		20.0	12E0602	05/10/12 20:48	SJN	TAL CF
Total	Prep	SW 5035		0.903	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 22:39	ZTB	TAL CF
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW 3510C_MS_Leach		1.00	12E0539_P	05/10/12 11:04	EEE	TAL CF
TCLP	Analysis	SW 8270C		1.00	V000868	05/15/12 15:15	DMD	TAL CF
Total	Prep	SW 3546 GCMS		2.49	12E0414_P	05/08/12 10:17	AM	TAL CF
Total	Analysis	SW 8270D		1.00	V000829	05/09/12 21:09	DMD	TAL CF
TCLP	Leach	1311			149288	05/07/12 08:00	DAK	TAL CHI
TCLP	Prep	8151A			149617	05/14/12 08:54	AD	TAL CHI
TCLP	Analysis	8151		1	149724	05/15/12 15:09	PMF	TAL CHI

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-05(MIP-23) 02-04

Lab Sample ID: CVE0494-23

Date Collected: 05/04/12 08:50
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW 3510C_GC_Leach		0.300	12E0476_P	05/09/12 10:48	AM	TAL CF
TCLP	Analysis	SW 8081B		1.00	V000890	05/16/12 19:00	DLK	TAL CF
Total	Prep	SW 3546 GC		0.999	12E0475_P	05/09/12 10:43	AM	TAL CF
Total	Analysis	SW 8082		1.00	V000883	05/17/12 11:31	TCH	TAL CF
Total	Prep	SW 3546 GC		0.973	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 23:27	MXG	TAL CF
TCLP	Prep	EPA 245.2/SW 7470A Prep		1.00	12E0604_P	05/10/12 16:00	MRH	TAL CF
TCLP	Analysis	SW 7470A		1.00	12E0604	05/11/12 11:40	CJT	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.960	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:16	CJT	TAL CF
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW 3010A - TCLP		1.00	12E0479_P	05/09/12 13:10	CJT	TAL CF
TCLP	Analysis	SW 6010C		1.00	12E0479	05/10/12 20:46	SNS	TAL CF
Total	Prep	SW 3050B		0.943	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:33	SNS	TAL CF
Total/NA	Prep	9030B			149327	05/10/12 17:20	CLM	TAL CHI
Total/NA	Analysis	9034		1	149485	05/11/12 10:19	CLM	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 12:36	MTB	TAL CHI
Total	Prep	NO PREP - WET CHEM		0.983	12E0746_P	05/14/12 19:30	LBB	TAL CF
Total	Analysis	SW 9012A Mod		1.00	12E0746	05/14/12 21:48	JMH	TAL CF
Total	Prep	NO PREP - WET CHEM			12E0793_P	05/15/12 15:15	JCF	TAL CF
Total	Analysis	ASTM D92		1.00	12E0793	05/15/12 15:17	JCF	TAL CF
Total	Analysis	SW 9045D		1.00	12E0598	05/10/12 15:44	SAS	TAL CF
Total	Prep	NO PREP - WET CHEM			12E0598_P	05/10/12 15:44	SAS	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF
TCLP	Prep	SW 1311			12E0340_P	05/07/12 16:00	JDB	TAL CF
TCLP	Analysis	SW 1311		1.00	12E0340	05/08/12 09:59	JDB	TAL CF
Total	Prep	SW 1311 - ZHE			12E0466_P	05/09/12 09:45	JDB	TAL CF
Total	Analysis	SW 1311		1.00	12E0466	05/10/12 09:56	JDB	TAL CF

Client Sample ID: SB-05(MIP-23) 06-08

Lab Sample ID: CVE0494-24

Date Collected: 05/04/12 09:00
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.891	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 23:02	ZTB	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-05(MIP-23) 06-08

Lab Sample ID: CVE0494-24

Date Collected: 05/04/12 09:00
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 3546 GC		0.980	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 22:04	MXG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.878	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:18	CJT	TAL CF
Total	Prep	SW 3050B		0.912	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		3.00	12E0421	05/14/12 14:49	CJT	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 12:45	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-05(MIP-23) 12-14

Lab Sample ID: CVE0494-25

Date Collected: 05/04/12 09:15
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.778	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 23:25	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.974	12E0412_P	05/08/12 10:10	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000827	05/09/12 22:45	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 12:53	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-12(MIP-16a) 04-08

Lab Sample ID: CVE0494-26

Date Collected: 05/04/12 09:40
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	TCLP Extraction		20.0	12E0466	05/09/12 09:45	JDB	TAL CF
TCLP	Prep	SW 5030B		1.00	12E0602_P	05/10/12 00:00	SJN	TAL CF
TCLP	Analysis	SW 1311/8260B		20.0	12E0602	05/10/12 21:10	SJN	TAL CF
Total	Prep	SW 5035		0.799	12E0713_P	05/12/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/12/12 23:48	ZTB	TAL CF
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW 3510C_MS_Leach		1.00	12E0539_P	05/10/12 11:04	EEE	TAL CF
TCLP	Analysis	SW 8270C		1.00	V000868	05/15/12 15:45	DMD	TAL CF
Total	Prep	SW 3546 GCMS		1.46	12E0414_P	05/08/12 10:17	AM	TAL CF
Total	Analysis	SW 8270D		10.0	V000841	05/10/12 20:25	DMD	TAL CF
TCLP	Leach	1311			149288	05/07/12 08:00	DAK	TAL CHI

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-12(MIP-16a) 04-08

Lab Sample ID: CVE0494-26

Date Collected: 05/04/12 09:40

Matrix: Soil

Date Received: 05/04/12 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Prep	8151A			149617	05/14/12 08:54	AD	TAL CHI
TCLP	Analysis	8151		1	149724	05/15/12 15:32	PMF	TAL CHI
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW		0.300	12E0476_P	05/09/12 10:48	AM	TAL CF
TCLP	Analysis	3510C_GC_Leach SW 8081B		1.00	V000890	05/16/12 19:13	DLK	TAL CF
Total	Prep	SW 3546 GC		0.991	12E0475_P	05/09/12 10:43	AM	TAL CF
Total	Analysis	SW 8082		1.00	V000883	05/17/12 11:42	TCH	TAL CF
Total	Prep	SW 3546 GC		1.20	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000857	05/15/12 01:48	MXG	TAL CF
Total	Prep	SW 3546 GC	RE1	1.20	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B	RE1	15.0	V000862	05/15/12 10:59	MXG	TAL CF
TCLP	Prep	EPA 245.2/SW		1.00	12E0604_P	05/10/12 16:00	MRH	TAL CF
TCLP	Analysis	7470A Prep SW 7470A		1.00	12E0604	05/11/12 11:42	CJT	TAL CF
Total	Prep	EPA 245.2/SW		0.910	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	7470A Prep SW 7471B		1.00	12E0436	05/08/12 16:20	CJT	TAL CF
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW 3010A - TCLP		1.00	12E0479_P	05/09/12 13:10	CJT	TAL CF
TCLP	Analysis	SW 6010C		1.00	12E0479	05/10/12 20:48	SNS	TAL CF
Total	Prep	SW 3050B		0.981	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:42	SNS	TAL CF
Total/NA	Prep	9030B			149327	05/10/12 17:20	CLM	TAL CHI
Total/NA	Analysis	9034		1	149485	05/11/12 10:19	CLM	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 13:02	MTB	TAL CHI
Total	Prep	NO PREP - WET CHEM		0.987	12E0746_P	05/14/12 19:30	LBB	TAL CF
Total	Analysis	SW 9012A Mod		1.00	12E0746	05/14/12 21:49	JMH	TAL CF
Total	Prep	NO PREP - WET CHEM			12E0793_P	05/15/12 15:15	JCF	TAL CF
Total	Analysis	ASTM D92		1.00	12E0793	05/15/12 15:17	JCF	TAL CF
Total	Analysis	SW 9045D		1.00	12E0598	05/10/12 15:45	SAS	TAL CF
Total	Prep	NO PREP - WET CHEM			12E0598_P	05/10/12 15:45	SAS	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF
TCLP	Prep	SW 1311			12E0340_P	05/07/12 16:00	JDB	TAL CF
TCLP	Analysis	SW 1311		1.00	12E0340	05/08/12 09:59	JDB	TAL CF
Total	Prep	SW 1311 - ZHE			12E0466_P	05/09/12 09:45	JDB	TAL CF
Total	Analysis	SW 1311		1.00	12E0466	05/10/12 09:56	JDB	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Duplicate-3 — Lab Sample ID: CVE0494-27

Date Collected: 05/04/12 00:00 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 79.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.852	12E0713_P	05/13/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/13/12 00:12	ZTB	TAL CF
Total	Prep	SW 3546 GC		0.981	12E0475_P	05/09/12 10:43	AM	TAL CF
Total	Analysis	SW 8082		1.00	V000883	05/17/12 11:53	TCH	TAL CF
Total	Prep	SW 3546 GC		1.19	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000857	05/15/12 02:30	MXG	TAL CF
Total	Prep	SW 3546 GC	RE1	1.19	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B	RE1	10.0	V000862	05/15/12 14:56	MXG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.897	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:21	CJT	TAL CF
Total	Prep	SW 3050B		0.856	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/14/12 14:52	CJT	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 13:10	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-12(MIP-16a) 10-12 — Lab Sample ID: CVE0494-28

Date Collected: 05/04/12 10:05 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 84.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.802	12E0713_P	05/13/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/13/12 00:34	ZTB	TAL CF
Total	Prep	SW 3546 GC		1.18	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000857	05/14/12 17:32	MXG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.946	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:23	CJT	TAL CF
Total	Prep	SW 3050B		0.951	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:47	SNS	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 13:19	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-03(MIP-30) 22-24 — Lab Sample ID: CVE0494-29

Date Collected: 05/04/12 10:55 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.706	12E0713_P	05/13/12 00:00	ZTB	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-03(MIP-30) 22-24

Lab Sample ID: CVE0494-29

Date Collected: 05/04/12 10:55
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	SW 8260B		100	12E0713	05/13/12 00:58	ZTB	TAL CF
Total	Prep	SW 3546 GC		1.20	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000857	05/14/12 18:13	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 13:27	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-10(MIP-12) 05-07

Lab Sample ID: CVE0494-30

Date Collected: 05/04/12 11:40
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.795	12E0713_P	05/13/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/13/12 01:21	ZTB	TAL CF
Total	Prep	SW 3546 GC		1.19	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000857	05/14/12 18:54	MXG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.913	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:25	CJT	TAL CF
Total	Prep	SW 3050B		0.976	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:49	SNS	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 13:36	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-10(MIP-12) 16-18

Lab Sample ID: CVE0494-31

Date Collected: 05/04/12 12:00
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.827	12E0713_P	05/13/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0713	05/13/12 01:44	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-06(MIP-27) 06-08 — Lab Sample ID: CVE0494-32

Date Collected: 05/04/12 12:25 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 82.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.951	12E0868_P	05/16/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0868	05/16/12 13:33	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: Duplicate-1 — Lab Sample ID: CVE0494-33

Date Collected: 05/04/12 00:00 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 82.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.742	12E0868_P	05/16/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0868	05/16/12 14:04	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-06(MIP-27) 20-22 — Lab Sample ID: CVE0494-34

Date Collected: 05/04/12 12:50 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 87.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.770	12E0868_P	05/16/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0868	05/16/12 14:34	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-04(LIF-06) 06-08 — Lab Sample ID: CVE0494-35

Date Collected: 05/04/12 13:20 — **Matrix: Soil**
Date Received: 05/04/12 19:30 — **Percent Solids: 79.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.857	12E0868_P	05/16/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0868	05/16/12 15:04	ZTB	TAL CF
Total	Prep	SW 3546 GC		1.19	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000857	05/14/12 19:35	MXG	TAL CF
Total	Prep	SW 3546 GC	RE1	1.19	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B	RE1	10.0	V000862	05/15/12 17:14	MXG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.908	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:27	CJT	TAL CF
Total	Prep	SW 3050B		0.967	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:51	SNS	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 13:44	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 06-08

Lab Sample ID: CVE0494-35

Date Collected: 05/04/12 13:20
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: SB-04(LIF-06) 10-12

Lab Sample ID: CVE0494-36

Date Collected: 05/04/12 13:30
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	TCLP Extraction		20.0	12E0466	05/09/12 09:45	JDB	TAL CF
TCLP	Prep	SW 5030B		1.00	12E0602_P	05/10/12 00:00	SJN	TAL CF
TCLP	Analysis	SW 1311/8260B		20.0	12E0602	05/10/12 21:32	SJN	TAL CF
Total	Prep	SW 5035		0.888	12E0868_P	05/16/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0868	05/16/12 15:35	ZTB	TAL CF
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW 3510C_MS_Leach		1.00	12E0539_P	05/10/12 11:04	EEE	TAL CF
TCLP	Analysis	SW 8270C		1.00	V000868	05/15/12 16:16	DMD	TAL CF
Total	Prep	SW 3546 GCMS		2.39	12E0414_P	05/08/12 10:17	AM	TAL CF
Total	Analysis	SW 8270D		1.00	V000829	05/09/12 20:38	DMD	TAL CF
TCLP	Leach	1311			149288	05/07/12 08:00	DAK	TAL CHI
TCLP	Prep	8151A			149617	05/14/12 08:54	AD	TAL CHI
TCLP	Analysis	8151		1	149724	05/15/12 15:54	PMF	TAL CHI
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW 3510C_GC_Leach		0.300	12E0476_P	05/09/12 10:48	AM	TAL CF
TCLP	Analysis	SW 8081B		1.00	V000890	05/16/12 19:25	DLK	TAL CF
Total	Prep	SW 3546 GC		2.35	12E0475_P	05/09/12 10:43	AM	TAL CF
Total	Analysis	SW 8082		1.00	V000883	05/17/12 12:04	TCH	TAL CF
Total	Prep	SW 3546 GC		1.18	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000857	05/14/12 20:17	MXG	TAL CF
TCLP	Prep	EPA 245.2/SW 7470A Prep		1.00	12E0604_P	05/10/12 16:00	MRH	TAL CF
TCLP	Analysis	SW 7470A		1.00	12E0604	05/11/12 11:44	CJT	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		0.861	12E0436_P	05/08/12 13:38	CJT	TAL CF
Total	Analysis	SW 7471B		1.00	12E0436	05/08/12 16:28	CJT	TAL CF
TCLP	Leach	TCLP Extraction		1.00	12E0340	05/07/12 16:00	JDB	TAL CF
TCLP	Prep	SW 3010A - TCLP		1.00	12E0479_P	05/09/12 13:10	CJT	TAL CF
TCLP	Analysis	SW 6010C		1.00	12E0479	05/10/12 20:49	SNS	TAL CF
Total	Prep	SW 3050B		0.954	12E0421_P	05/08/12 10:46	CJT	TAL CF
Total	Analysis	SW 6010C		1.00	12E0421	05/10/12 09:52	SNS	TAL CF
Total/NA	Prep	9030B			149327	05/10/12 17:20	CLM	TAL CHI
Total/NA	Analysis	9034		1	149485	05/11/12 10:20	CLM	TAL CHI
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 13:53	MTB	TAL CHI
Total	Prep	NO PREP - WET CHEM		0.970	12E0746_P	05/14/12 19:30	LBB	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: SB-04(LIF-06) 10-12

Lab Sample ID: CVE0494-36

Date Collected: 05/04/12 13:30
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	SW 9012A Mod		1.00	12E0746	05/14/12 21:58	JMH	TAL CF
Total	Prep	NO PREP - WET CHEM			12E0793_P	05/15/12 15:15	JCF	TAL CF
Total	Analysis	ASTM D92		1.00	12E0793	05/15/12 15:17	JCF	TAL CF
Total	Analysis	SW 9045D		1.00	12E0598	05/10/12 15:46	SAS	TAL CF
Total	Prep	NO PREP - WET CHEM			12E0598_P	05/10/12 15:46	SAS	TAL CF
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF
TCLP	Prep	SW 1311			12E0340_P	05/07/12 16:00	JDB	TAL CF
TCLP	Analysis	SW 1311		1.00	12E0340	05/08/12 09:59	JDB	TAL CF
Total	Prep	SW 1311 - ZHE			12E0466_P	05/09/12 09:45	JDB	TAL CF
Total	Analysis	SW 1311		1.00	12E0466	05/10/12 09:56	JDB	TAL CF

Client Sample ID: SB-04(LIF-06) 16-18

Lab Sample ID: CVE0494-37

Date Collected: 05/04/12 13:50
Matrix: Soil
Date Received: 05/04/12 19:30
Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.764	12E0868_P	05/16/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100	12E0868	05/16/12 16:05	ZTB	TAL CF
Total	Prep	SW 3546 GC		1.19	12E0474_P	05/09/12 10:42	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00	V000857	05/14/12 20:58	MXG	TAL CF
Total/NA	Analysis	Moisture		1	149760	05/15/12 11:20	CMV	TAL CHI
Total/NA	Prep	9071B			149939	05/17/12 07:00	MTB	TAL CHI
Total/NA	Analysis	9071B		1	149964	05/17/12 14:01	MTB	TAL CHI
Total	Analysis	SM 2540 G		1.00	12E0442	05/08/12 15:17	RAK	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12E0442_P	05/08/12 15:17	RAK	TAL CF

Client Sample ID: Trip Blank (GA-2)

Lab Sample ID: CVE0494-38

Date Collected: 05/03/12 00:00
Matrix: Water
Date Received: 05/04/12 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	12E0527_P	05/08/12 00:00	SJN	TAL CF
Total	Analysis	SW 8260B		1.00	12E0527	05/08/12 00:18	SJN	TAL CF
Total	Prep	Default Prep VOC		1.00	12E0566_P	05/10/12 15:03	AM	TAL CF
Total	Analysis	SW 9041A		1.00	12E0566	05/10/12 15:07	AM	TAL CF

Client Sample ID: Trip Blank (LBW-7)

Lab Sample ID: CVE0494-39

Date Collected: 05/03/12 00:00
Matrix: Water
Date Received: 05/04/12 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	12E0527_P	05/07/12 00:00	SJN	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Client Sample ID: Trip Blank (LBW-7)

Lab Sample ID: CVE0494-39

Date Collected: 05/03/12 00:00
Matrix: Water
Date Received: 05/04/12 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	SW 8260B		1.00	12E0527	05/07/12 23:11	SJN	TAL CF
Total	Prep	Default Prep VOC		1.00	12E0566_P	05/10/12 15:03	AM	TAL CF
Total	Analysis	SW 9041A		1.00	12E0566	05/10/12 15:07	AM	TAL CF

Client Sample ID: Trip Blank (Rockford)

Lab Sample ID: CVE0494-40

Date Collected: 05/03/12 00:00
Matrix: Water
Date Received: 05/04/12 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	12E0527_P	05/07/12 00:00	SJN	TAL CF
Total	Analysis	SW 8260B		1.00	12E0527	05/07/12 23:33	SJN	TAL CF
Total	Prep	Default Prep VOC		1.00	12E0566_P	05/10/12 15:03	AM	TAL CF
Total	Analysis	SW 9041A		1.00	12E0566	05/10/12 15:07	AM	TAL CF

Client Sample ID: Trip Blank (002)

Lab Sample ID: CVE0494-41

Date Collected: 05/03/12 00:00
Matrix: Water
Date Received: 05/04/12 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	12E0527_P	05/07/12 00:00	SJN	TAL CF
Total	Analysis	SW 8260B		1.00	12E0527	05/07/12 23:56	SJN	TAL CF
Total	Prep	Default Prep VOC		1.00	12E0566_P	05/10/12 15:03	AM	TAL CF
Total	Analysis	SW 9041A		1.00	12E0566	05/10/12 15:07	AM	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL 800-750-2401

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
CIN	The % RSD for this compound was above 15%. The average % RSD for all compounds in the calibration met the 15% criteria specified in EPA methods 8260B/8270C.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the control limits. Analyte not detected, data not impacted.
B	Analyte was detected in the associated Method Blank.

GCMS Semivolatiles

Qualifier	Qualifier Description
M1	The MS and/or MSD were outside control limits.
R	Sample duplicate RPD exceeded the laboratory control limit.
RL1	Reporting limit raised due to sample matrix effects.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semivolatiles

Qualifier	Qualifier Description
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information.
ZX	Due to sample matrix effects, the surrogate recovery was outside the control limits.
M1	The MS and/or MSD were outside control limits.
R	Sample duplicate RPD exceeded the laboratory control limit.
Q	Poor chromatographic match to standard.

Metals-ICP

Qualifier	Qualifier Description
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information.
IE	Elevated reporting limit due to interelement interference.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

WetChem

Qualifier	Qualifier Description
H3	Sample was received and analyzed past holding time.

Extractions

Qualifier	Qualifier Description
T6	The temperature during the 18 hour TCLP/SPLP extraction exceeded the 21-25 degrees C range stated in SW 1311/SW1312.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Cedar Falls	AIHA - LAP	IHLAP		101044
TestAmerica Cedar Falls	Illinois	NELAC	5	200024
TestAmerica Cedar Falls	Iowa	State Program	7	7
TestAmerica Cedar Falls	Kansas	NELAC	7	E-10341
TestAmerica Cedar Falls	Minnesota	NELAC	5	019-999-319
TestAmerica Cedar Falls	North Dakota	State Program	8	R-186
TestAmerica Cedar Falls	Oregon	NELAC	10	IA100001
TestAmerica Cedar Falls	Wisconsin	State Program	5	999917270
TestAmerica Chicago	A2LA	A2LA		R-194
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Georgia	State Program	4	N/A
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Kentucky (UST)	State Program	4	66
TestAmerica Chicago	L-A-B	DoD ELAP		L2304
TestAmerica Chicago	L-A-B	ISO/IEC 17025		L2304
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina DENR	State Program	4	291
TestAmerica Chicago	North Dakota	State Program	8	R-194
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	Federal		P330-12-00038
TestAmerica Chicago	Virginia	NELAC	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVE0494

Method	Method Description	Protocol	Laboratory
SW 1311	TCLP Extraction by EPA 1311		TAL CF
SW 1311/8260B	TCLP Volatile Organic Compounds by EPA Method 1311/8260B		TAL CF
SW 8260B	Volatile Organic Compounds		TAL CF
SW 9041A	VOC Preservation Check		TAL CF
SW 8270C	TCLP Semivolatile Compounds by EPA Method 1311/8270C		TAL CF
SW 8270D	Semivolatile Organics by GC/MS		TAL CF
8151	TCLP Herbicides	SW846	TAL CHI
OA-2 - 8015B	UST ANALYSIS PARAMETERS		TAL CF
SW 8081B	TCLP Pesticides by EPA Method 1311/8081A		TAL CF
SW 8082	Polychlorinated Biphenyls by EPA Method 8082		TAL CF
SW 7470A	TCLP Metals		TAL CF
SW 7471B	Total Metals by SW 846 Series Methods		TAL CF
SW 6010C	Total Metals by SW 846 Series Methods		TAL CF
SW 6010C	TCLP Metals		TAL CF
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL CHI
9071B	HEM and SGT-HEM	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
ASTM D92	General Chemistry Parameters		TAL CF
SM 2540 G	General Chemistry Parameters		TAL CF
SW 9012A Mod	General Chemistry Parameters		TAL CF
SW 9045D	General Chemistry Parameters		TAL CF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL 800-750-2401

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613
Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: GOLDER ASSOCIATES INC. Client #: _____
Address: 670 NORTH COMMERCIAL STREET, SUITE 103
City/State/Zip Code: MANCHESTER, NEW HAMPSHIRE, 03101
Project Manager: JAMES PEACE
Email Address: jim-peace@golder.com
Telephone Number: (603) 668-0880 Fax: (603) 668-1199
Sampler Name: (Print Name) MICHAEL DREYER
Sampler Signature: [signature]

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON State: IOWA
Report To: JAMES PEACE
Invoice To: JAMES PEACE
Quote #: _____ PO#: _____

TAT: X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify) Na_2HSO_4	Analyze For: VOCs-8260	TEH-OA-2	O&G 1664A	METALS	PCBs	TCLP - VOCs, SVOC, METALS, PEST	TOTAL SVOCs	CYANIDE, FURNIGANT	pH	SULFIDE	QC Deliverables	REMARKS
SB-01 (MIP-15) 02-04	5-3-12	1325	G		S					1	3	2	X	X	X	X								
SB-01 (MIP-15) 07-09	5-3-12	1330	G		S					1	3	2	X	X	X	X								
SB-01 (MIP-15) 15-17	5-3-12	1340	G		S					1	2	2	X	X	X									
SB-01 (MIP-15) 31-33	5-3-12	1355	G		S					1	2	2	X	X	X									
SB-02 (MIP-34) 02-04	5-3-12	1450	G		S						2			X	X									
SB-02 (MIP-34) 14-16	5-3-12	1500	G		S					1	1	2	X											
SB-02 (MIP-34) 28-30	5-3-12	1515	G		S					1	1	2	X											
SB-13 (MIP-32) 01-03	5-3-12	1530	G		S					1	3	2	X	X	X	X								
SB-13 (MIP-32) 04-06	5-3-12	1535	G		S					1	3	2	X	X	X	X								
SB-13 (MIP-32) 10-12	5-3-12	1540	G		S					1	2	2	X	X	X									

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

Special Instructions:

LABORATORY COMMENTS:

Relinquished By: [signature]	Date: 5-4-12	Time: 1700	Received By: [signature]	Date: 5/4/12	Time: 1930
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Associates Project: _____

City: Manchester, New Hampshire

Date: 5/4/12 Receiver's Initials: JMH Time (Delivered): 1930

Temperature Record:

Cooler ID# (If Applicable)

GA-2

0.8 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☑ IR - 111531565 'D'

☐ IR - 111531506 'E'

☐ IR - 61854108 'Front'

☐ 101681126

Courier:

☐ UPS

☐ FedEx

☐ FedEx Ground

☐ US Postal Service

☐ Spee-Dee

☑ TA Courier

☐ TA Field Services

☐ Client

☐ Other

Custody seals present?

☐ Yes

Custody seals intact?

☐ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ No Temp. Blank. Inside temperature of cooler recorded.

☐ Temperature not taken:

purge vols

***Refer to SOP CF-SS-01 for Temperature Criteria**

F:\DeimerlyC\QA Folder\QA Forms & Log Book pgs\Cooler Receipt rev17.doc

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: GOLDER ASSOCIATES INC. Client #: _____
Address: 670 NORTH COMMERCIAL STREET, SUITE 103
City/State/Zip Code: MANCHESTER, NEW HAMPSHIRE, 03101
Project Manager: JAMES PEACE
Email Address: jim-peace@golder.com
Telephone Number: (603) 668-0880 Fax: (603) 668-1199
Sampler Name: (Print Name) MICHAEL DREYER
Sampler Signature: [signature]

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON State: IOWA
Report To: JAMES PEACE
Invoice To: JAMES PEACE
Quote #: _____ PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify, Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify) $Na_2S_2O_3$	Analyze For: VOCs -8260	TEH-OA-2	O&G 1664A	METALS	PCBs	TCLP-VOC, SVOC HERB, PEST	TOTAL SVOCs CYANIDE, FLASHPOINT pH	SULFIDE		REMARKS
SB-13(MIP-32) 16-18	5-3-12	1550	G		S					1	2	2	X	X	X							
SB-13(MIP-32) 26-28	5-3-12	1600	G		S					1	2	2	X	X	X							
SB-11(MIP-02) 14-16	5-3-12	1635	G		S					1	1	2	X									
SB-11 (MIP-02) 18-20	5-3-12	1635	G		S					1	1	2	X									
SB-03(MIP-30) 02-04	5-3-12	1715	G		S					1	3	2	X	X	X	X						
SB-03 (MIP-30) 06-08	5-3-12	1725	G		S					1	6	2	X	X	X	X	X	X	X	X	X	
SB-03 (MIP-30) 16-18	5-3-12	1750	G		S					1	2	2	X	X	X							
SB-07(MIP-29) 02-04	5-3-12	1905	G		S						2			X	X							
SB-09(MIP-09) 03-05	5-3-12	1925	G		S						2			X	X							
SB-08(MIP-25) 02-04	5-3-12	1950	G		S					1	3	2	X	X	X	X						

Special Instructions:

LABORATORY COMMENTS

Relinquished By: [signature]	Date: 5-4-12	Time: 1700	Received By: [signature]	Date: 5/4/12	Time: 1930
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

Page 2 of 4

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Associates Project: _____

City: Manchester, New Hampshire

Date: 5/4/12 Receiver's Initials: JMH Time (Delivered): 1930

Temperature Record:

Cooler ID# (If Applicable) 43W-7

0.6 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☑ IR - 111531565 'D'

☐ IR - 111531506 'E'

☐ IR - 61854108 'Front'

☐ 101681126

Courier:

☐ UPS

☐ FedEx

☐ FedEx Ground

☐ US Postal Service

☐ Spee-Dee

☑ TA Courier

☐ TA Field Services

☐ Client

☐ Other

Custody seals present?

☐ Yes

Custody seals intact?

☐ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ No Temp. Blank. Inside temperature of cooler recorded.

☐ Temperature not taken:

_____

purge vials

***Refer to SOP CF-SS-01 for Temperature Criteria**

F:\DeimerlyC\QA Folder\QA Forms & Log Book pgs\Cooler Receipt rev17.doc

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: GOLDER ASSOCIATES INC. Client #: _____
Address: 670 NORTH COMMERCIAL STREET, SUITE 103
City/State/Zip Code: MANCHESTER, NEW HAMPSHIRE, 03101
Project Manager: JAMES PEACE
Email Address: jim-peace@golder.com
Telephone Number: (603) 668-0880 Fax: (603) 668-1199
Sampler Name: (Print Name) MICHAEL DREYER
Sampler Signature: [signature]

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON State: IOWA
Report To: JAMES PEACE
Invoice To: JAMES PEACE
Quote #: _____ PO#: _____

TAT: ✓ Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other
Preservation & # of Containers: HNO_3, HCl, NaOH, H_2SO_4, Methanol, None, Other (Specify) $Na_2S_2O_3$
Analyze For: VOC's - 8260, TEH-OA-2, O+G-1664A, METALS, PCB's, TCLP- VOC, SVOC, HERB, PEST, TOTAL SVOC's, CYANIDE, FLASHPOINT, pH, SULFIDE
QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	VOC's - 8260	TEH-OA-2	O+G-1664A	METALS	PCB's	TCLP- VOC, SVOC, HERB, PEST	TOTAL SVOC's	CYANIDE, FLASHPOINT, pH	SULFIDE		REMARKS
DUPLICATE-2	5-3-12	N/A	G		S					1	3	2	X	X	X	X							
SB-08(MIP-25) 10-12	5-3-12	2005	G		S					1	2	2	X	X	X								
SB-05(MIP-23) 02-04	5-4-12	0850	G		S					1	6	2	X	X	X	X	X	X	X	X	X		
SB-05(MIP-23) 06-08	5-4-12	0900	G		S					1	3	2	X	X	X	X							
SB-05(MIP-23) 12-14	5-4-12	0915	G		S					1	2	2	X	X	X								
SB-12(MIP-16a) 04-08	5-4-12	0940	G		S					1	6	2	X	X	X	X	X	X	X	X	X		
DUPLICATE-3	5-4-12	N/A	G		S					1	4	2	X	X	X	X	X						
SB-12(MIP-16a) 10-12	5-4-12	1005	G		S					1	3	2	X	X	X	X							
SB-03(MIP-30) 22-24	5-4-12	1055	G		S					1	2	2	X	X	X								
SB-10(MIP-12) 05-07	5-4-12	1140	G		S					1	3	2	X	X	X	X							

Special Instructions:

LABORATORY COMMENTS:

Relinquished By:	Date: 5-4-12	Time: 1700	Received By:	Date: 5/4/12	Time: 1930
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

Page 3 of 4

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: GOLDER ASSOCIATES INC. Client #: _____
Address: 670 NORTH COMMERCIAL STREET, SUITE 103
City/State/Zip Code: MANCHESTER, NEW HAMPSHIRE, 03101
Project Manager: JAMES PEACE
Email Address: jim-peace@golder.com
Telephone Number: (603) 668-0880 Fax: (603) 668-1199
Sampler Name: (Print Name) MICHAEL DREYER
Sampler Signature: [signature]

Project Name: ELECTROLUX JEFFERSON
Project #: 103-87305
Site/Location ID: JEFFERSON State: IOWA
Report To: JAMES PEACE
Invoice To: JAMES PEACE
Quote #: _____ PO#: _____

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify) Na_2HSO_4	Analyze For: VOCs - 8260	TEH-OA-2	8 & G-1664A	METALS	PCBs	TCLP - VOC, SVOC, HERB, PEST	TOTAL SVOCs, CYANIDE, FLASHPOINT, pH	SULFIDE			QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____ REMARKS
SB-10(MIP-12) 16-18	5-4-12	1200	G		S					1	1	2	X										
SB-06(MIP-27) 06-08	5-4-12	1225	G		S					1	1	2	X										
DUPLICATE-1	5-4-12	N/A	G		S					1	1	2	X										
SB-06(MIP-27) 20-22	5-4-12	1250	G		S					1	1	2	X										
SB-04(LIF-06) 06-08	5-4-12	1320	G		S					1	3	2	X	X	X	X							
SB-04(LIF-06) 10-12	5-4-12	1330	G		S					1	6	2	X	X	X	X	X	X	X	X	X		
SB-04(LIF-06) 16-18	5-4-12	1350	G		S					1	2	2	X	X	X								
TRIP-BLANK	—	—			DW		3						X										
TRIP BLANK	—	—			DW		3						X										
TRIP BLANK	—	—			DW		3						X										

Special Instructions:

LABORATORY COMMENTS:

	Date:	Time:		Date:	Time:
Relinquished By: [signature]	5-4-12	1700	Received By: [signature]	5/4/12	1930
Relinquished By:			Received By:		
Relinquished By:			Received By:		

TAL-0033 (0708)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Associates Project: _____

City: Manchester, New Hampshire

Date: 5/4/12 Receiver's Initials: JWH Time (Delivered): 1930

Temperature Record:

Cooler ID# (If Applicable)
Rockford T/B

0.3 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☑ IR - 111531565 'D'

☐ IR - 111531506 'E'

☐ IR - 61854108 'Front'

☐ 101681126

Courier:

☐ UPS ☑ TA Courier

☐ FedEx ☐ TA Field Services

☐ FedEx Ground ☐ Client

☐ US Postal Service ☐ Other

☐ Spee-Dee _____

Custody seals present?
☐ Yes

Custody seals intact?
☐ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ No Temp. Blank. Inside temperature of cooler recorded.

☐ Temperature not taken:

_____

Purge vials

***Refer to SOP CF-SS-01 for Temperature Criteria**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Associates Project: _____

City: Manchester, New Hampshire

Date: 5/4/12 Receiver's Initials: JMH Time (Delivered): 1930

Temperature Record:

Cooler ID# (If Applicable)
WEPCO

0.7 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☑ IR - 111531565 'D'

☐ IR - 111531506 'E'

☐ IR - 61854108 'Front'

☐ 101681126

Courier:

☐ UPS ☑ TA Courier

☐ FedEx ☐ TA Field Services

☐ FedEx Ground ☐ Client

☐ US Postal Service ☐ Other

☐ Spee-Dee

Custody seals present?
☐ Yes

Custody seals intact?
☐ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ No Temp. Blank. Inside temperature of cooler recorded.

☐ Temperature not taken:

_____

***Refer to SOP CF-SS-01 for Temperature Criteria**

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Associates Project: _____

City: Manchester, Newhampshire

Date: 5/9/12 Receiver's Initials: JMH Time (Delivered): 1930

Temperature Record:

Cooler ID# (If Applicable)
Z6-12

0.4 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☑ IR - 111531565 'D'
☐ IR - 111531506 'E'
☐ IR - 61854108 'Front'
☐ 101681126

Courier:

☐ UPS
☐ FedEx
☐ FedEx Ground
☐ US Postal Service
☐ Spee-Dee
☑ TA Courier
☐ TA Field Services
☐ Client
☐ Other

Custody seals present?
☐ Yes
Custody seals intact?
☐ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

☐ Sample(s) not received in a cooler.
☐ Samples(s) received same day of sampling.
☐ Evidence of a chilling process
☐ No Temp. Blank. Inside temperature of cooler recorded.
☐ Temperature not taken:

_____

***Refer to SOP CF-SS-01 for Temperature Criteria**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Associates Project: _____

City: Manchester, New Hampshire

Date: 5/4/12 Receiver's Initials: JMH Time (Delivered): 1930

Temperature Record:

Cooler ID# (If Applicable) G1

3.3 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☑ IR - 111531565 'D'

☐ IR - 111531506 'E'

☐ IR - 61854108 'Front'

☐ 101681126

Courier:

☐ UPS ☑ TA Courier

☐ FedEx ☐ TA Field Services

☐ FedEx Ground ☐ Client

☐ US Postal Service ☐ Other

☐ Spee-Dee

Custody seals present?

☐ Yes

Custody seals intact?

☐ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ No Temp. Blank. Inside temperature of cooler recorded.

☐ Temperature not taken:

_____

***Refer to SOP CF-SS-01 for Temperature Criteria**

F:\DeimerlyC\QA Folder\QA Forms & Log Book pgs\Cooler Receipt rev17.doc

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Golder Associates Project: _____

City: Manchester, New Hampshire

Date: 5/4/12 Receiver's Initials: JMH Time (Delivered): 1930

Temperature Record:

Cooler ID# (If Applicable)
002

0.7 °C / On Ice

☑ Temp Blank

☐ Temperature out of compliance

Thermometer:

☑ IR - 111531565 'D'
☐ IR - 111531506 'E'
☐ IR - 61854108 'Front'
☐ 101681126

Courier:

☐ UPS
☐ FedEx
☐ FedEx Ground
☐ US Postal Service
☐ Spee-Dee
☑ TA Courier
☐ TA Field Services
☐ Client
☐ Other

Custody seals present?
☐ Yes
Custody seals intact?
☐ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

☐ Sample(s) not received in a cooler.
☐ Samples(s) received same day of sampling.
☐ Evidence of a chilling process
☐ No Temp. Blank. Inside temperature of cooler recorded.
☐ Temperature not taken:

purge vials

***Refer to SOP CF-SS-01 for Temperature Criteria**

F:\DeimerlyC\QA Folder\QA Forms & Log Book pgs\Cooler Receipt rev17.doc

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: 800-750-2401

TestAmerica Job ID: CVK1116
Client Project/Site: 103-87305
Client Project Description: Electrolux Jefferson, IA

For:
GOLDER ASSOCIATES - MANCHESTER, NH
670 North Commercial Street, Suite 103
Manchester, NH 03101

Attn: James Peace

Angela Muehling

Authorized for release by:
11/26/2012 4:26:20 PM
Angela Muehling
Project Coordinator
Angela.Muehling@testamericainc.com

Designee for

Derrick Klinkenberg
Organics Manager
derrick.klinkenberg@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Chain of Custody 33

Sample Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
CVK1116-01	MW-43D 41.5 ft	Soil	11/15/12 14:18	11/16/12 09:30
CVK1116-02	MW-43D 29.5 ft	Soil	11/14/12 10:39	11/16/12 09:30
CVK1116-03	MW-46 31.5 ft	Soil	11/13/12 13:40	11/16/12 09:30
CVK1116-04	MW-46 41.5 ft	Soil	11/15/12 09:20	11/16/12 09:30
CVK1116-05	MW-47D 31.5ft	Soil	11/12/12 16:05	11/16/12 09:30
CVK1116-06	MW-47D 34.5 ft	Soil	11/14/12 14:46	11/16/12 09:30
CVK1116-07	Trip Blank	Soil	11/15/12 00:00	11/16/12 09:30

Detection Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-43D 41.5 ft — Lab Sample ID: CVK1116-01

No Detections

Client Sample ID: MW-43D 29.5 ft — Lab Sample ID: CVK1116-02

No Detections

Client Sample ID: MW-46 31.5 ft — Lab Sample ID: CVK1116-03

No Detections

Client Sample ID: MW-46 41.5 ft — Lab Sample ID: CVK1116-04

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1880		259		ug/kg dry	50.0	☼	SW 8260B	Total

Client Sample ID: MW-47D 31.5ft — Lab Sample ID: CVK1116-05

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1300		224		ug/kg dry	50.0	☼	SW 8260B	Total

Client Sample ID: MW-47D 34.5 ft — Lab Sample ID: CVK1116-06

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	6400		268		ug/kg dry	50.0	☼	SW 8260B	Total

Client Sample ID: Trip Blank — Lab Sample ID: CVK1116-07

No Detections

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-43D 41.5 ft

Date Collected: 11/15/12 14:18
Date Received: 11/16/12 09:30
Sampler Name: Chad Adams

Lab Sample ID: CVK1116-01

Matrix: Soil
Percent Solids: 89
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2330	CIN	2330		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Benzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Bromobenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Bromochloromethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Bromodichloromethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Bromoform	<467		467		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Bromomethane	<934		934		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
2-Butanone (MEK)	<2330		2330		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
n-Butylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
sec-Butylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
tert-Butylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Carbon disulfide	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Carbon Tetrachloride	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Chlorobenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Chlorodibromomethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Chloroethane	<934	ICV	934		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Chloroform	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Chloromethane	<934		934		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
2-Chlorotoluene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
4-Chlorotoluene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,2-Dibromo-3-chloropropane	<2330		2330		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,2-Dibromoethane (EDB)	<2330		2330		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Dibromomethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,2-Dichlorobenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,3-Dichlorobenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,4-Dichlorobenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Dichlorodifluoromethane	<700		700		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,1-Dichloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,2-Dichloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,1-Dichloroethene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
cis-1,2-Dichloroethene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
trans-1,2-Dichloroethene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,2-Dichloropropane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,3-Dichloropropane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
2,2-Dichloropropane	<934		934		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,1-Dichloropropene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
cis-1,3-Dichloropropene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
trans-1,3-Dichloropropene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Ethylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Hexachlorobutadiene	<1170		1170		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Hexane	<1170		1170		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Isopropylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
p-Isopropyltoluene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Methylene Chloride	<2330	CIN	2330		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Methyl tert-Butyl Ether	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Naphthalene	<1170		1170		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
n-Propylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Styrene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-43D 41.5 ft

Date Collected: 11/15/12 14:18
Date Received: 11/16/12 09:30
Sampler Name: Chad Adams

Lab Sample ID: CVK1116-01

Matrix: Soil
Percent Solids: 89
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,1,2,2-Tetrachloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Tetrachloroethene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Toluene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,2,3-Trichlorobenzene	<1170		1170		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,2,4-Trichlorobenzene	<1170		1170		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,1,1-Trichloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,1,2-Trichloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Trichloroethene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Trichlorofluoromethane	<934		934		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,2,3-Trichloropropane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,2,4-Trimethylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
1,3,5-Trimethylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Vinyl chloride	<700		700		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0
Xylenes, total	<700		700		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:17	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*89*		*75 - 125*	*11/21/12 00:00*	*11/21/12 16:17*	*50.0*
Toluene-d8	*89*		*80 - 120*	*11/21/12 00:00*	*11/21/12 16:17*	*50.0*
4-Bromofluorobenzene	*106*		*80 - 120*	*11/21/12 00:00*	*11/21/12 16:17*	*50.0*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**89.0**		0.1		%		11/16/12 15:50	11/16/12 15:50	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-43D 29.5 ft

Date Collected: 11/14/12 10:39
Date Received: 11/16/12 09:30
Sampler Name: Chad Adams

Lab Sample ID: CVK1116-02

Matrix: Soil
Percent Solids: 91.3
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2110	CIN	2110		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Benzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Bromobenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Bromochloromethane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Bromodichloromethane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Bromoform	<423		423		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Bromomethane	<846		846		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
2-Butanone (MEK)	<2110		2110		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
n-Butylbenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
sec-Butylbenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
tert-Butylbenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Carbon disulfide	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Carbon Tetrachloride	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Chlorobenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Chlorodibromomethane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Chloroethane	<846	ICV	846		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Chloroform	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Chloromethane	<846		846		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
2-Chlorotoluene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
4-Chlorotoluene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,2-Dibromo-3-chloropropane	<2110		2110		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,2-Dibromoethane (EDB)	<2110		2110		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Dibromomethane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,2-Dichlorobenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,3-Dichlorobenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,4-Dichlorobenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Dichlorodifluoromethane	<634		634		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,1-Dichloroethane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,2-Dichloroethane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,1-Dichloroethene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
cis-1,2-Dichloroethene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
trans-1,2-Dichloroethene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,2-Dichloropropane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,3-Dichloropropane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
2,2-Dichloropropane	<846		846		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,1-Dichloropropene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
cis-1,3-Dichloropropene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
trans-1,3-Dichloropropene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Ethylbenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Hexachlorobutadiene	<1060		1060		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Hexane	<1060		1060		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Isopropylbenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
p-Isopropyltoluene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Methylene Chloride	<2110	CIN	2110		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Methyl tert-Butyl Ether	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Naphthalene	<1060		1060		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
n-Propylbenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Styrene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-43D 29.5 ft

Lab Sample ID: CVK1116-02

Date Collected: 11/14/12 10:39
Matrix: Soil
Date Received: 11/16/12 09:30
Percent Solids: 91.3
Sampler Name: Chad Adams
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,1,2,2-Tetrachloroethane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Tetrachloroethene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Toluene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,2,3-Trichlorobenzene	<1060		1060		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,2,4-Trichlorobenzene	<1060		1060		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,1,1-Trichloroethane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,1,2-Trichloroethane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Trichloroethene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Trichlorofluoromethane	<846		846		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,2,3-Trichloropropane	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,2,4-Trimethylbenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
1,3,5-Trimethylbenzene	<211		211		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Vinyl chloride	<634		634		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0
Xylenes, total	<634		634		ug/kg dry	☼	11/21/12 00:00	11/21/12 16:47	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*86*		*75 - 125*	*11/21/12 00:00*	*11/21/12 16:47*	*50.0*
Toluene-d8	*88*		*80 - 120*	*11/21/12 00:00*	*11/21/12 16:47*	*50.0*
4-Bromofluorobenzene	*103*		*80 - 120*	*11/21/12 00:00*	*11/21/12 16:47*	*50.0*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**91.3**		0.1		%		11/16/12 15:50	11/16/12 15:50	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-46 31.5 ft

Date Collected: 11/13/12 13:40
Date Received: 11/16/12 09:30
Sampler Name: Chad Adams

Lab Sample ID: CVK1116-03

Matrix: Soil
Percent Solids: 89.5
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2330	CIN	2330		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Benzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Bromobenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Bromochloromethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Bromodichloromethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Bromoform	<465		465		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Bromomethane	<931		931		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
2-Butanone (MEK)	<2330		2330		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
n-Butylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
sec-Butylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
tert-Butylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Carbon disulfide	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Carbon Tetrachloride	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Chlorobenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Chlorodibromomethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Chloroethane	<931	ICV	931		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Chloroform	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Chloromethane	<931		931		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
2-Chlorotoluene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
4-Chlorotoluene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,2-Dibromo-3-chloropropane	<2330		2330		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,2-Dibromoethane (EDB)	<2330		2330		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Dibromomethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,2-Dichlorobenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,3-Dichlorobenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,4-Dichlorobenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Dichlorodifluoromethane	<698		698		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,1-Dichloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,2-Dichloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,1-Dichloroethene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
cis-1,2-Dichloroethene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
trans-1,2-Dichloroethene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,2-Dichloropropane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,3-Dichloropropane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
2,2-Dichloropropane	<931		931		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,1-Dichloropropene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
cis-1,3-Dichloropropene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
trans-1,3-Dichloropropene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Ethylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Hexachlorobutadiene	<1160		1160		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Hexane	<1160		1160		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Isopropylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
p-Isopropyltoluene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Methylene Chloride	<2330	CIN	2330		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Methyl tert-Butyl Ether	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Naphthalene	<1160		1160		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
n-Propylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Styrene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-46 31.5 ft

Lab Sample ID: CVK1116-03

Date Collected: 11/13/12 13:40
Matrix: Soil
Date Received: 11/16/12 09:30
Percent Solids: 89.5
Sampler Name: Chad Adams
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,1,2,2-Tetrachloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Tetrachloroethene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Toluene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,2,3-Trichlorobenzene	<1160		1160		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,2,4-Trichlorobenzene	<1160		1160		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,1,1-Trichloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,1,2-Trichloroethane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Trichloroethene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Trichlorofluoromethane	<931		931		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,2,3-Trichloropropane	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,2,4-Trimethylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
1,3,5-Trimethylbenzene	<233		233		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Vinyl chloride	<698		698		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0
Xylenes, total	<698		698		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:18	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*84*		*75 - 125*	*11/21/12 00:00*	*11/21/12 17:18*	*50.0*
Toluene-d8	*88*		*80 - 120*	*11/21/12 00:00*	*11/21/12 17:18*	*50.0*
4-Bromofluorobenzene	*105*		*80 - 120*	*11/21/12 00:00*	*11/21/12 17:18*	*50.0*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**89.5**		0.1		%		11/16/12 15:50	11/16/12 15:50	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-46 41.5 ft

Date Collected: 11/15/12 09:20
Date Received: 11/16/12 09:30
Sampler Name: Chad Adams

Lab Sample ID: CVK1116-04

Matrix: Soil
Percent Solids: 86.7
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2590	CIN	2590		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Benzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Bromobenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Bromochloromethane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Bromodichloromethane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Bromoform	<517		517		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Bromomethane	<1030		1030		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
2-Butanone (MEK)	<2590		2590		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
n-Butylbenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
sec-Butylbenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
tert-Butylbenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Carbon disulfide	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Carbon Tetrachloride	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Chlorobenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Chlorodibromomethane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Chloroethane	<1030	ICV	1030		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Chloroform	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Chloromethane	<1030		1030		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
2-Chlorotoluene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
4-Chlorotoluene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,2-Dibromo-3-chloropropane	<2590		2590		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,2-Dibromoethane (EDB)	<2590		2590		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Dibromomethane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,2-Dichlorobenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,3-Dichlorobenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,4-Dichlorobenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Dichlorodifluoromethane	<776		776		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,1-Dichloroethane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,2-Dichloroethane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,1-Dichloroethene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
cis-1,2-Dichloroethene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
trans-1,2-Dichloroethene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,2-Dichloropropane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,3-Dichloropropane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
2,2-Dichloropropane	<1030		1030		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,1-Dichloropropene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
cis-1,3-Dichloropropene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
trans-1,3-Dichloropropene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Ethylbenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Hexachlorobutadiene	<1290		1290		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Hexane	<1290		1290		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Isopropylbenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
p-Isopropyltoluene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Methylene Chloride	<2590	CIN	2590		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Methyl tert-Butyl Ether	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Naphthalene	<1290		1290		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
n-Propylbenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Styrene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-46 41.5 ft

Lab Sample ID: CVK1116-04

Date Collected: 11/15/12 09:20
Matrix: Soil
Date Received: 11/16/12 09:30
Percent Solids: 86.7
Sampler Name: Chad Adams
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,1,2,2-Tetrachloroethane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Tetrachloroethene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Toluene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,2,3-Trichlorobenzene	<1290		1290		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,2,4-Trichlorobenzene	<1290		1290		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,1,1-Trichloroethane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,1,2-Trichloroethane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Trichloroethene	**1880**		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Trichlorofluoromethane	<1030		1030		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,2,3-Trichloropropane	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,2,4-Trimethylbenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
1,3,5-Trimethylbenzene	<259		259		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Vinyl chloride	<776		776		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0
Xylenes, total	<776		776		ug/kg dry	☼	11/21/12 00:00	11/21/12 17:48	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*85*		*75 - 125*	*11/21/12 00:00*	*11/21/12 17:48*	*50.0*
Toluene-d8	*89*		*80 - 120*	*11/21/12 00:00*	*11/21/12 17:48*	*50.0*
4-Bromofluorobenzene	*105*		*80 - 120*	*11/21/12 00:00*	*11/21/12 17:48*	*50.0*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**86.7**		0.1		%		11/16/12 16:40	11/16/12 16:40	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-47D 31.5ft

Date Collected: 11/12/12 16:05
Date Received: 11/16/12 09:30
Sampler Name: Chad Adams

Lab Sample ID: CVK1116-05

Matrix: Soil
Percent Solids: 89
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2240	CIN	2240		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Benzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Bromobenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Bromochloromethane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Bromodichloromethane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Bromoform	<448		448		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Bromomethane	<895		895		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
2-Butanone (MEK)	<2240		2240		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
n-Butylbenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
sec-Butylbenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
tert-Butylbenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Carbon disulfide	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Carbon Tetrachloride	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Chlorobenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Chlorodibromomethane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Chloroethane	<895	ICV	895		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Chloroform	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Chloromethane	<895		895		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
2-Chlorotoluene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
4-Chlorotoluene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,2-Dibromo-3-chloropropane	<2240		2240		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,2-Dibromoethane (EDB)	<2240		2240		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Dibromomethane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,2-Dichlorobenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,3-Dichlorobenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,4-Dichlorobenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Dichlorodifluoromethane	<671		671		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,1-Dichloroethane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,2-Dichloroethane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,1-Dichloroethene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
cis-1,2-Dichloroethene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
trans-1,2-Dichloroethene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,2-Dichloropropane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,3-Dichloropropane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
2,2-Dichloropropane	<895		895		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,1-Dichloropropene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
cis-1,3-Dichloropropene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
trans-1,3-Dichloropropene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Ethylbenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Hexachlorobutadiene	<1120		1120		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Hexane	<1120		1120		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Isopropylbenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
p-Isopropyltoluene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Methylene Chloride	<2240	CIN	2240		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Methyl tert-Butyl Ether	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Naphthalene	<1120		1120		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
n-Propylbenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Styrene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-47D 31.5ft

Lab Sample ID: CVK1116-05

Date Collected: 11/12/12 16:05
Matrix: Soil
Date Received: 11/16/12 09:30
Percent Solids: 89
Sampler Name: Chad Adams
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,1,2,2-Tetrachloroethane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Tetrachloroethene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Toluene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,2,3-Trichlorobenzene	<1120		1120		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,2,4-Trichlorobenzene	<1120		1120		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,1,1-Trichloroethane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,1,2-Trichloroethane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Trichloroethene	**1300**		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Trichlorofluoromethane	<895		895		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,2,3-Trichloropropane	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,2,4-Trimethylbenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
1,3,5-Trimethylbenzene	<224		224		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Vinyl chloride	<671		671		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0
Xylenes, total	<671		671		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:19	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*86*		*75 - 125*	*11/21/12 00:00*	*11/21/12 18:19*	*50.0*
Toluene-d8	*88*		*80 - 120*	*11/21/12 00:00*	*11/21/12 18:19*	*50.0*
4-Bromofluorobenzene	*107*		*80 - 120*	*11/21/12 00:00*	*11/21/12 18:19*	*50.0*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**89.0**		0.1		%		11/16/12 16:40	11/16/12 16:40	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-47D 34.5 ft

Date Collected: 11/14/12 14:46
Date Received: 11/16/12 09:30
Sampler Name: Chad Adams

Lab Sample ID: CVK1116-06

Matrix: Soil
Percent Solids: 83
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2680	CIN	2680		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Benzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Bromobenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Bromochloromethane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Bromodichloromethane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Bromoform	<536		536		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Bromomethane	<1070		1070		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
2-Butanone (MEK)	<2680		2680		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
n-Butylbenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
sec-Butylbenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
tert-Butylbenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Carbon disulfide	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Carbon Tetrachloride	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Chlorobenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Chlorodibromomethane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Chloroethane	<1070	ICV	1070		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Chloroform	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Chloromethane	<1070		1070		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
2-Chlorotoluene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
4-Chlorotoluene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,2-Dibromo-3-chloropropane	<2680		2680		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,2-Dibromoethane (EDB)	<2680		2680		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Dibromomethane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,2-Dichlorobenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,3-Dichlorobenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,4-Dichlorobenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Dichlorodifluoromethane	<804		804		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,1-Dichloroethane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,2-Dichloroethane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,1-Dichloroethene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
cis-1,2-Dichloroethene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
trans-1,2-Dichloroethene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,2-Dichloropropane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,3-Dichloropropane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
2,2-Dichloropropane	<1070		1070		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,1-Dichloropropene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
cis-1,3-Dichloropropene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
trans-1,3-Dichloropropene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Ethylbenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Hexachlorobutadiene	<1340		1340		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Hexane	<1340		1340		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Isopropylbenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
p-Isopropyltoluene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Methylene Chloride	<2680	CIN	2680		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Methyl tert-Butyl Ether	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Naphthalene	<1340		1340		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
n-Propylbenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Styrene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-47D 34.5 ft

Lab Sample ID: CVK1116-06

Date Collected: 11/14/12 14:46
Matrix: Soil
Date Received: 11/16/12 09:30
Percent Solids: 83
Sampler Name: Chad Adams
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,1,2,2-Tetrachloroethane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Tetrachloroethene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Toluene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,2,3-Trichlorobenzene	<1340		1340		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,2,4-Trichlorobenzene	<1340		1340		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,1,1-Trichloroethane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,1,2-Trichloroethane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Trichloroethene	**6400**		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Trichlorofluoromethane	<1070		1070		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,2,3-Trichloropropane	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,2,4-Trimethylbenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
1,3,5-Trimethylbenzene	<268		268		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Vinyl chloride	<804		804		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0
Xylenes, total	<804		804		ug/kg dry	☼	11/21/12 00:00	11/21/12 18:49	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*86*		*75 - 125*	*11/21/12 00:00*	*11/21/12 18:49*	*50.0*
Toluene-d8	*91*		*80 - 120*	*11/21/12 00:00*	*11/21/12 18:49*	*50.0*
4-Bromofluorobenzene	*104*		*80 - 120*	*11/21/12 00:00*	*11/21/12 18:49*	*50.0*

Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	**83.0**		0.1		%		11/16/12 16:40	11/16/12 16:40	1.00

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: Trip Blank

Lab Sample ID: CVK1116-07

Date Collected: 11/15/12 00:00
Matrix: Soil
Date Received: 11/16/12 09:30
Sampler Name: Chad Adams
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2500	CIN	2500		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Benzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Bromobenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Bromochloromethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Bromodichloromethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Bromoform	<500		500		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Bromomethane	<1000		1000		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
2-Butanone (MEK)	<2500		2500		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
n-Butylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
sec-Butylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
tert-Butylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Carbon disulfide	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Carbon Tetrachloride	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Chlorobenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Chlorodibromomethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Chloroethane	<1000	ICV	1000		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Chloroform	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Chloromethane	<1000		1000		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
2-Chlorotoluene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
4-Chlorotoluene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,2-Dibromo-3-chloropropane	<2500		2500		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,2-Dibromoethane (EDB)	<2500		2500		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Dibromomethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,2-Dichlorobenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,3-Dichlorobenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,4-Dichlorobenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Dichlorodifluoromethane	<750		750		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,1-Dichloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,2-Dichloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,1-Dichloroethene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
cis-1,2-Dichloroethene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
trans-1,2-Dichloroethene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,2-Dichloropropane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,3-Dichloropropane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
2,2-Dichloropropane	<1000		1000		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,1-Dichloropropene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
cis-1,3-Dichloropropene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
trans-1,3-Dichloropropene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Ethylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Hexachlorobutadiene	<1250		1250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Hexane	<1250		1250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Isopropylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
p-Isopropyltoluene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Methylene Chloride	<2500	CIN	2500		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Methyl tert-Butyl Ether	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Naphthalene	<1250		1250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
n-Propylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Styrene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0

Client Sample Results

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: Trip Blank

Lab Sample ID: CVK1116-07

Date Collected: 11/15/12 00:00
Matrix: Soil
Date Received: 11/16/12 09:30
Sampler Name: Chad Adams
Sampler Phone Number: (603) 668-0880

Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,1,2,2-Tetrachloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Tetrachloroethene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Toluene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,2,3-Trichlorobenzene	<1250		1250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,2,4-Trichlorobenzene	<1250		1250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,1,1-Trichloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,1,2-Trichloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Trichloroethene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Trichlorofluoromethane	<1000		1000		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,2,3-Trichloropropane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,2,4-Trimethylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
1,3,5-Trimethylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Vinyl chloride	<750		750		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0
Xylenes, total	<750		750		ug/kg wet		11/21/12 00:00	11/21/12 19:20	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*86*		*75 - 125*	*11/21/12 00:00*	*11/21/12 19:20*	*50.0*
Toluene-d8	*86*		*80 - 120*	*11/21/12 00:00*	*11/21/12 19:20*	*50.0*
4-Bromofluorobenzene	*104*		*80 - 120*	*11/21/12 00:00*	*11/21/12 19:20*	*50.0*

Surrogate Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Method: SW 8260B - Volatile Organic Compounds

Matrix: Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-125)	(80-120)	(80-120)
CVK1116-01	MW-43D 41.5 ft	89	89	106
CVK1116-02	MW-43D 29.5 ft	86	88	103
CVK1116-03	MW-46 31.5 ft	84	88	105
CVK1116-04	MW-46 41.5 ft	85	89	105
CVK1116-05	MW-47D 31.5ft	86	88	107
CVK1116-06	MW-47D 34.5 ft	86	91	104
CVK1116-07	Trip Blank	86	86	104

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Method: SW 8260B - Volatile Organic Compounds

Matrix: Solid/Soil **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	Toluene-d8	BFB
Lab Sample ID	Client Sample ID	(75-125)	(80-120)	(80-120)
12K1119-BLK1	Method Blank	89	87	103
12K1119-BS1	Lab Control Sample	95	89	109
12K1119-BSD1	Lab Control Sample Dup	95	88	107

Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

Method: SW 8260B - Volatile Organic Compounds

Lab Sample ID: 12K1119-BLK1
Matrix: Solid/Soil
Analysis Batch: 12K1119

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12K1119_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2500	CIN	2500		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Benzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Bromobenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Bromochloromethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Bromodichloromethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Bromoform	<500		500		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Bromomethane	<1000		1000		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
2-Butanone (MEK)	<2500		2500		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
n-Butylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
sec-Butylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
tert-Butylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Carbon disulfide	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Carbon Tetrachloride	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Chlorobenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Chlorodibromomethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Chloroethane	<1000	ICV	1000		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Chloroform	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Chloromethane	<1000		1000		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
2-Chlorotoluene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
4-Chlorotoluene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,2-Dibromo-3-chloropropane	<2500		2500		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,2-Dibromoethane (EDB)	<2500		2500		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Dibromomethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,2-Dichlorobenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,3-Dichlorobenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,4-Dichlorobenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Dichlorodifluoromethane	<750		750		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,1-Dichloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,2-Dichloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,1-Dichloroethene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
cis-1,2-Dichloroethene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
trans-1,2-Dichloroethene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,2-Dichloropropane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,3-Dichloropropane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
2,2-Dichloropropane	<1000		1000		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,1-Dichloropropene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
cis-1,3-Dichloropropene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
trans-1,3-Dichloropropene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Ethylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Hexachlorobutadiene	<1250		1250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Hexane	<1250		1250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Isopropylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
p-Isopropyltoluene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Methylene Chloride	<2500	CIN	2500		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Methyl tert-Butyl Ether	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Naphthalene	<1250		1250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
n-Propylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Styrene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12K1119-BLK1
Matrix: Solid/Soil
Analysis Batch: 12K1119

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12K1119_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,1,2,2-Tetrachloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Tetrachloroethene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Toluene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,2,3-Trichlorobenzene	<1250		1250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,2,4-Trichlorobenzene	<1250		1250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,1,1-Trichloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,1,2-Trichloroethane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Trichloroethene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Trichlorofluoromethane	<1000		1000		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,2,3-Trichloropropane	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,2,4-Trimethylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
1,3,5-Trimethylbenzene	<250		250		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Vinyl chloride	<750		750		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0
Xylenes, total	<750		750		ug/kg wet		11/21/12 00:00	11/21/12 10:42	50.0

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*89*		*75 - 125*	*11/21/12 00:00*	*11/21/12 10:42*	*50.0*
Toluene-d8	*87*		*80 - 120*	*11/21/12 00:00*	*11/21/12 10:42*	*50.0*
4-Bromofluorobenzene	*103*		*80 - 120*	*11/21/12 00:00*	*11/21/12 10:42*	*50.0*

Lab Sample ID: 12K1119-BS1
Matrix: Solid/Soil
Analysis Batch: 12K1119

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12K1119_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	16.8	CIN	ug/L		84	65 - 150
Benzene	20.0	22.9		ug/L		114	55 - 135
Bromobenzene	20.0	21.2		ug/L		106	65 - 125
Bromochloromethane	20.0	23.5		ug/L		118	65 - 130
Bromodichloromethane	20.0	19.2		ug/L		96	65 - 130
Bromoform	20.0	16.9		ug/L		85	50 - 135
Bromomethane	20.0	26.4		ug/L		132	45 - 135
2-Butanone (MEK)	20.0	15.9		ug/L		80	50 - 145
n-Butylbenzene	20.0	19.3		ug/L		96	55 - 130
sec-Butylbenzene	20.0	19.6		ug/L		98	60 - 125
tert-Butylbenzene	20.0	19.6		ug/L		98	55 - 125
Carbon disulfide	20.0	16.6		ug/L		83	40 - 135
Carbon Tetrachloride	20.0	22.0		ug/L		110	55 - 130
Chlorobenzene	20.0	22.2		ug/L		111	60 - 120
Chlorodibromomethane	20.0	18.9		ug/L		94	55 - 130
Chloroethane	20.0	23.8	ICV	ug/L		119	50 - 145
Chloroform	20.0	22.1		ug/L		110	65 - 130
Chloromethane	20.0	14.3		ug/L		71	40 - 135
2-Chlorotoluene	20.0	21.3		ug/L		106	60 - 125
4-Chlorotoluene	20.0	20.4		ug/L		102	60 - 125
1,2-Dibromo-3-chloropropane	20.0	13.8		ug/L		69	50 - 140
1,2-Dibromoethane (EDB)	20.0	21.6		ug/L		108	55 - 140

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12K1119-BS1
Matrix: Solid/Soil
Analysis Batch: 12K1119

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12K1119_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	22.7		ug/L		114	65 - 135
1,2-Dichlorobenzene	20.0	19.8		ug/L		99	65 - 120
1,3-Dichlorobenzene	20.0	20.0		ug/L		100	60 - 125
1,4-Dichlorobenzene	20.0	19.9		ug/L		99	60 - 125
Dichlorodifluoromethane	20.0	12.7		ug/L		64	40 - 135
1,1-Dichloroethane	20.0	19.3		ug/L		96	55 - 135
1,2-Dichloroethane	20.0	19.8		ug/L		99	60 - 140
1,1-Dichloroethene	20.0	21.4		ug/L		107	50 - 145
cis-1,2-Dichloroethene	20.0	22.8		ug/L		114	60 - 135
trans-1,2-Dichloroethene	20.0	21.1		ug/L		105	55 - 135
1,2-Dichloropropane	20.0	20.8		ug/L		104	55 - 130
1,3-Dichloropropane	20.0	22.6		ug/L		113	55 - 140
2,2-Dichloropropane	20.0	22.2		ug/L		111	40 - 135
1,1-Dichloropropene	20.0	23.0		ug/L		115	55 - 130
cis-1,3-Dichloropropene	20.0	20.8		ug/L		104	50 - 115
trans-1,3-Dichloropropene	20.0	18.8		ug/L		94	55 - 130
Ethylbenzene	20.0	20.8		ug/L		104	60 - 125
Hexachlorobutadiene	20.0	22.4		ug/L		112	40 - 135
Hexane	20.0	13.9		ug/L		70	45 - 140
Isopropylbenzene	20.0	20.1		ug/L		101	60 - 125
p-Isopropyltoluene	20.0	19.4		ug/L		97	60 - 120
Methylene Chloride	20.0	19.3	CIN	ug/L		96	55 - 145
Methyl tert-Butyl Ether	20.0	19.9		ug/L		99	55 - 130
Naphthalene	20.0	16.7		ug/L		84	50 - 130
n-Propylbenzene	20.0	20.3		ug/L		102	50 - 125
Styrene	20.0	20.2		ug/L		101	60 - 125
1,1,1,2-Tetrachloroethane	20.0	21.9		ug/L		110	65 - 125
1,1,2,2-Tetrachloroethane	20.0	19.2		ug/L		96	60 - 125
Tetrachloroethene	20.0	23.3		ug/L		116	55 - 125
Toluene	20.0	22.0		ug/L		110	60 - 130
1,2,3-Trichlorobenzene	20.0	20.1		ug/L		100	50 - 130
1,2,4-Trichlorobenzene	20.0	19.4		ug/L		97	45 - 135
1,1,1-Trichloroethane	20.0	23.0		ug/L		115	60 - 125
1,1,2-Trichloroethane	20.0	22.7		ug/L		113	55 - 135
Trichloroethene	20.0	23.1		ug/L		115	60 - 130
Trichlorofluoromethane	20.0	25.0		ug/L		125	50 - 145
1,2,3-Trichloropropane	20.0	21.2		ug/L		106	50 - 145
1,2,4-Trimethylbenzene	20.0	20.5		ug/L		102	55 - 125
1,3,5-Trimethylbenzene	20.0	20.3		ug/L		101	50 - 130
Vinyl chloride	20.0	14.9		ug/L		75	45 - 140
Xylenes, total	60.0	63.3		ug/L		105	50 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*95*		*75 - 125*
Toluene-d8	*89*		*80 - 120*
4-Bromofluorobenzene	*109*		*80 - 120*

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12K1119-BSD1
Matrix: Solid/Soil
Analysis Batch: 12K1119

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12K1119_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	20.0	16.8	CIN	ug/L		84	65 - 150	0.06	40
Benzene	20.0	22.5		ug/L		112	55 - 135	2	25
Bromobenzene	20.0	20.7		ug/L		103	65 - 125	2	35
Bromochloromethane	20.0	22.1		ug/L		110	65 - 130	6	35
Bromodichloromethane	20.0	19.2		ug/L		96	65 - 130	0.3	30
Bromoform	20.0	16.9		ug/L		85	50 - 135	0.06	40
Bromomethane	20.0	25.6		ug/L		128	45 - 135	3	40
2-Butanone (MEK)	20.0	17.1		ug/L		85	50 - 145	7	40
n-Butylbenzene	20.0	18.5		ug/L		93	55 - 130	4	30
sec-Butylbenzene	20.0	18.9		ug/L		95	60 - 125	4	30
tert-Butylbenzene	20.0	18.6		ug/L		93	55 - 125	5	25
Carbon disulfide	20.0	16.6		ug/L		83	40 - 135	0.6	40
Carbon Tetrachloride	20.0	21.1		ug/L		106	55 - 130	4	30
Chlorobenzene	20.0	21.4		ug/L		107	60 - 120	4	30
Chlorodibromomethane	20.0	18.2		ug/L		91	55 - 130	4	40
Chloroethane	20.0	24.3	ICV	ug/L		121	50 - 145	2	40
Chloroform	20.0	21.6		ug/L		108	65 - 130	2	30
Chloromethane	20.0	14.2		ug/L		71	40 - 135	0.1	40
2-Chlorotoluene	20.0	19.7		ug/L		99	60 - 125	8	35
4-Chlorotoluene	20.0	19.3		ug/L		97	60 - 125	5	35
1,2-Dibromo-3-chloropropane	20.0	12.3		ug/L		61	50 - 140	12	35
1,2-Dibromoethane (EDB)	20.0	20.4		ug/L		102	55 - 140	6	30
Dibromomethane	20.0	21.5		ug/L		107	65 - 135	6	30
1,2-Dichlorobenzene	20.0	19.5		ug/L		98	65 - 120	2	30
1,3-Dichlorobenzene	20.0	19.0		ug/L		95	60 - 125	5	30
1,4-Dichlorobenzene	20.0	19.0		ug/L		95	60 - 125	5	30
Dichlorodifluoromethane	20.0	14.0		ug/L		70	40 - 135	9	35
1,1-Dichloroethane	20.0	19.0		ug/L		95	55 - 135	2	40
1,2-Dichloroethane	20.0	19.3		ug/L		96	60 - 140	2	30
1,1-Dichloroethene	20.0	20.9		ug/L		104	50 - 145	2	40
cis-1,2-Dichloroethene	20.0	22.6		ug/L		113	60 - 135	1	40
trans-1,2-Dichloroethene	20.0	21.3		ug/L		107	55 - 135	1	40
1,2-Dichloropropane	20.0	20.6		ug/L		103	55 - 130	1	30
1,3-Dichloropropane	20.0	22.1		ug/L		110	55 - 140	3	30
2,2-Dichloropropane	20.0	20.9		ug/L		105	40 - 135	6	45
1,1-Dichloropropene	20.0	22.7		ug/L		114	55 - 130	1	30
cis-1,3-Dichloropropene	20.0	20.8		ug/L		104	50 - 115	0.05	35
trans-1,3-Dichloropropene	20.0	18.7		ug/L		94	55 - 130	0.4	30
Ethylbenzene	20.0	19.9		ug/L		100	60 - 125	5	30
Hexachlorobutadiene	20.0	20.8		ug/L		104	40 - 135	8	35
Hexane	20.0	15.4		ug/L		77	45 - 140	10	35
Isopropylbenzene	20.0	19.6		ug/L		98	60 - 125	3	35
p-Isopropyltoluene	20.0	18.5		ug/L		92	60 - 120	5	30
Methylene Chloride	20.0	18.2	CIN	ug/L		91	55 - 145	6	40
Methyl tert-Butyl Ether	20.0	19.0		ug/L		95	55 - 130	4	30
Naphthalene	20.0	16.0		ug/L		80	50 - 130	4	30
n-Propylbenzene	20.0	19.2		ug/L		96	50 - 125	6	35
Styrene	20.0	19.0		ug/L		95	60 - 125	6	35

Method: SW 8260B - Volatile Organic Compounds (Continued)

Lab Sample ID: 12K1119-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12K1119 — **Prep Batch: 12K1119_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			20.0	20.4		ug/L		102	65 - 125	7	30
1,1,2,2-Tetrachloroethane			20.0	18.4		ug/L		92	60 - 125	5	35
Tetrachloroethene			20.0	22.2		ug/L		111	55 - 125	5	40
Toluene			20.0	20.9		ug/L		104	60 - 130	5	35
1,2,3-Trichlorobenzene			20.0	17.6		ug/L		88	50 - 130	13	35
1,2,4-Trichlorobenzene			20.0	18.0		ug/L		90	45 - 135	8	35
1,1,1-Trichloroethane			20.0	23.0		ug/L		115	60 - 125	0	30
1,1,2-Trichloroethane			20.0	21.6		ug/L		108	55 - 135	5	30
Trichloroethene			20.0	22.4		ug/L		112	60 - 130	3	30
Trichlorofluoromethane			20.0	25.0		ug/L		125	50 - 145	0	40
1,2,3-Trichloropropane			20.0	20.3		ug/L		102	50 - 145	4	35
1,2,4-Trimethylbenzene			20.0	19.3		ug/L		97	55 - 125	6	35
1,3,5-Trimethylbenzene			20.0	19.1		ug/L		96	50 - 130	6	35
Vinyl chloride			20.0	15.1		ug/L		76	45 - 140	1	40
Xylenes, total			60.0	59.5		ug/L		99	50 - 130	6	30

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*95*		*75 - 125*
Toluene-d8	*88*		*80 - 120*
4-Bromofluorobenzene	*107*		*80 - 120*

Method: SM 2540 G - General Chemistry Parameters

Lab Sample ID: 12K0851-DUP1 — **Client Sample ID: Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12K0851 — **Prep Batch: 12K0851_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
% Solids	83.9			84.3		%				0.5	10

Lab Sample ID: 12K0851-DUP2 — **Client Sample ID: Duplicate**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12K0851 — **Prep Batch: 12K0851_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
% Solids	88.5			88.5		%				0.02	10

Lab Sample ID: 12K0943-DUP1 — **Client Sample ID: MW-46 41.5 ft**
Matrix: Solid/Soil — **Prep Type: Total**
Analysis Batch: 12K0943 — **Prep Batch: 12K0943_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
% Solids	86.7			86.0		%				0.8	10

Method: SM 2540 G - General Chemistry Parameters (Continued)

Lab Sample ID: 12K0943-DUP2 | **Client Sample ID: MW-47D 34.5 ft**
Matrix: Solid/Soil | **Prep Type: Total**
Analysis Batch: 12K0943 | **Prep Batch: 12K0943_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
% Solids	83.0			91.2		%				9	10

QC Association Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

GCMS Volatiles

Analysis Batch: 12K1119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12K1119-BLK1	Method Blank	Total	Solid/Soil	SW 8260B	12K1119_P
12K1119-BS1	Lab Control Sample	Total	Solid/Soil	SW 8260B	12K1119_P
12K1119-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 8260B	12K1119_P
CVK1116-01	MW-43D 41.5 ft	Total	Soil	SW 8260B	12K1119_P
CVK1116-02	MW-43D 29.5 ft	Total	Soil	SW 8260B	12K1119_P
CVK1116-03	MW-46 31.5 ft	Total	Soil	SW 8260B	12K1119_P
CVK1116-04	MW-46 41.5 ft	Total	Soil	SW 8260B	12K1119_P
CVK1116-05	MW-47D 31.5ft	Total	Soil	SW 8260B	12K1119_P
CVK1116-06	MW-47D 34.5 ft	Total	Soil	SW 8260B	12K1119_P
CVK1116-07	Trip Blank	Total	Soil	SW 8260B	12K1119_P

Prep Batch: 12K1119_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12K1119-BLK1	Method Blank	Total	Solid/Soil	SW 5035	
12K1119-BS1	Lab Control Sample	Total	Solid/Soil	SW 5035	
12K1119-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 5035	
CVK1116-01	MW-43D 41.5 ft	Total	Soil	SW 5035	
CVK1116-02	MW-43D 29.5 ft	Total	Soil	SW 5035	
CVK1116-03	MW-46 31.5 ft	Total	Soil	SW 5035	
CVK1116-04	MW-46 41.5 ft	Total	Soil	SW 5035	
CVK1116-05	MW-47D 31.5ft	Total	Soil	SW 5035	
CVK1116-06	MW-47D 34.5 ft	Total	Soil	SW 5035	
CVK1116-07	Trip Blank	Total	Soil	SW 5035	

WetChem

Analysis Batch: 12K0851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12K0851-DUP1	Duplicate	Total	Solid/Soil	SM 2540 G	12K0851_P
12K0851-DUP2	Duplicate	Total	Solid/Soil	SM 2540 G	12K0851_P
CVK1116-01	MW-43D 41.5 ft	Total	Soil	SM 2540 G	12K0851_P
CVK1116-02	MW-43D 29.5 ft	Total	Soil	SM 2540 G	12K0851_P
CVK1116-03	MW-46 31.5 ft	Total	Soil	SM 2540 G	12K0851_P

Analysis Batch: 12K0943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12K0943-DUP1	MW-46 41.5 ft	Total	Solid/Soil	SM 2540 G	12K0943_P
12K0943-DUP2	MW-47D 34.5 ft	Total	Solid/Soil	SM 2540 G	12K0943_P
CVK1116-04	MW-46 41.5 ft	Total	Soil	SM 2540 G	12K0943_P
CVK1116-05	MW-47D 31.5ft	Total	Soil	SM 2540 G	12K0943_P
CVK1116-06	MW-47D 34.5 ft	Total	Soil	SM 2540 G	12K0943_P

Prep Batch: 12K0851_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12K0851-DUP1	Duplicate	Total	Solid/Soil	Solids - Solid/Soil	
12K0851-DUP2	Duplicate	Total	Solid/Soil	Solids - Solid/Soil	
CVK1116-01	MW-43D 41.5 ft	Total	Soil	Solids - Solid/Soil	

QC Association Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

WetChem (Continued)

Prep Batch: 12K0851_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVK1116-02	MW-43D 29.5 ft	Total	Soil	Solids - Solid/Soil	
CVK1116-03	MW-46 31.5 ft	Total	Soil	Solids - Solid/Soil	

Prep Batch: 12K0943_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12K0943-DUP1	MW-46 41.5 ft	Total	Solid/Soil	Solids - Solid/Soil	
12K0943-DUP2	MW-47D 34.5 ft	Total	Solid/Soil	Solids - Solid/Soil	
CVK1116-04	MW-46 41.5 ft	Total	Soil	Solids - Solid/Soil	
CVK1116-05	MW-47D 31.5ft	Total	Soil	Solids - Solid/Soil	
CVK1116-06	MW-47D 34.5 ft	Total	Soil	Solids - Solid/Soil	

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-43D 41.5 ft — Lab Sample ID: CVK1116-01

Date Collected: 11/15/12 14:18 — **Matrix: Soil**
Date Received: 11/16/12 09:30 — **Percent Solids: 89**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.831	12K1119_P	11/21/12 00:00	TCH	TAL CF
Total	Analysis	SW 8260B		50.0	12K1119	11/21/12 16:17	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12K0851	11/16/12 15:50	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12K0851_P	11/16/12 15:50	SAS	TAL CF

Client Sample ID: MW-43D 29.5 ft — Lab Sample ID: CVK1116-02

Date Collected: 11/14/12 10:39 — **Matrix: Soil**
Date Received: 11/16/12 09:30 — **Percent Solids: 91.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.772	12K1119_P	11/21/12 00:00	TCH	TAL CF
Total	Analysis	SW 8260B		50.0	12K1119	11/21/12 16:47	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12K0851	11/16/12 15:50	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12K0851_P	11/16/12 15:50	SAS	TAL CF

Client Sample ID: MW-46 31.5 ft — Lab Sample ID: CVK1116-03

Date Collected: 11/13/12 13:40 — **Matrix: Soil**
Date Received: 11/16/12 09:30 — **Percent Solids: 89.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.833	12K1119_P	11/21/12 00:00	TCH	TAL CF
Total	Analysis	SW 8260B		50.0	12K1119	11/21/12 17:18	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12K0851	11/16/12 15:50	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12K0851_P	11/16/12 15:50	SAS	TAL CF

Client Sample ID: MW-46 41.5 ft — Lab Sample ID: CVK1116-04

Date Collected: 11/15/12 09:20 — **Matrix: Soil**
Date Received: 11/16/12 09:30 — **Percent Solids: 86.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.897	12K1119_P	11/21/12 00:00	TCH	TAL CF
Total	Analysis	SW 8260B		50.0	12K1119	11/21/12 17:48	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12K0943	11/16/12 16:40	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12K0943_P	11/16/12 16:40	SAS	TAL CF

Client Sample ID: MW-47D 31.5ft — Lab Sample ID: CVK1116-05

Date Collected: 11/12/12 16:05 — **Matrix: Soil**
Date Received: 11/16/12 09:30 — **Percent Solids: 89**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.796	12K1119_P	11/21/12 00:00	TCH	TAL CF
Total	Analysis	SW 8260B		50.0	12K1119	11/21/12 18:19	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12K0943	11/16/12 16:40	SAS	TAL CF

Lab Chronicle

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Client Sample ID: MW-47D 31.5ft

Lab Sample ID: CVK1116-05

Date Collected: 11/12/12 16:05
Matrix: Soil
Date Received: 11/16/12 09:30
Percent Solids: 89

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Solids - Solid/Soil		1.00	12K0943_P	11/16/12 16:40	SAS	TAL CF

Client Sample ID: MW-47D 34.5 ft

Lab Sample ID: CVK1116-06

Date Collected: 11/14/12 14:46
Matrix: Soil
Date Received: 11/16/12 09:30
Percent Solids: 83

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.890	12K1119_P	11/21/12 00:00	TCH	TAL CF
Total	Analysis	SW 8260B		50.0	12K1119	11/21/12 18:49	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00	12K0943	11/16/12 16:40	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	12K0943_P	11/16/12 16:40	SAS	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: CVK1116-07

Date Collected: 11/15/12 00:00
Matrix: Soil
Date Received: 11/16/12 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		1.00	12K1119_P	11/21/12 00:00	TCH	TAL CF
Total	Analysis	SW 8260B		50.0	12K1119	11/21/12 19:20	ZTB	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL 800-750-2401

Definitions/Glossary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
CIN	The % RSD for this compound was above 15%. The average % RSD for all compounds in the calibration met the 15% criteria specified in EPA methods 8260B/8270C.
ICV	ICV recovery was above control limits. Analyte not detected, data not impacted.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA - LAP	IHLAP		101044	11-01-14
Illinois	NELAC	5	200024	11-29-12
Iowa	State Program	7	7	12-01-13
Kansas	NELAC	7	E-10341	01-31-13
Minnesota	NELAC	5	019-999-319	12-31-12
North Dakota	State Program	8	R-186	09-29-13
Oregon	NELAC	10	IA100001	09-29-13
Wisconsin	State Program	5	999917270	08-31-13

Method Summary

Client: GOLDER ASSOCIATES - MANCHESTER, NH
Project/Site: 103-87305

TestAmerica Job ID: CVK1116

Method	Method Description	Protocol	Laboratory
SW 8260B	Volatile Organic Compounds		TAL CF
SM 2540 G	General Chemistry Parameters		TAL CF

Protocol References:

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL 800-750-2401

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Chad Adams
(Signature)

Your PO #:
Invoice To: SAME
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: James_Peace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H2SO4 Plastic (Yellow & White Label)	H2SO4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify) *	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:Stormwater	Analyze For: 8260 Volatiles	E-mail results	Send QC with report
MW-43D 41.5ft	11/15/12	1418	4	X			X							X					X		X	X	X
MW-43D 29.5ft	11/14/12	1039	4	X			X							X					X		X	X	X
MW-46 31.5ft	11/13/12	1340	4	X			X							X					X		X	X	X
MW-46 41.5ft	11/15/12	0920	4	X			X							X					X		X	X	X
MW-47D 31.5ft	11/12/12	1605	4	X			X							X					X		X	X	X
MW-47D 34.5ft	11/14/12	1446	4	X			X							X					X		X	X	X

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:
*Other: Preservatives are Sodium Bisulfate & 5mL MeOH

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	11/15/12	1700						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by: Angie Muehlem	11-16-12	9:30	Temperature Upon Receipt:			Laboratory Comments:		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

1 2 3 4 5 6 7 8 9 10 11 12 13

Sample Receipt and Temperature Log Form

Client: Golder Assoc. Project: Electrolux

City: _____

Date: 11-16-12 Receiver's Initials: CH Time (Delivered): 9:30

Temperature Record:

Cooler ID# (If Applicable) 2F

0.1° °C / On Ice

☒ Temp Blank

☐ Temperature out of compliance

Thermometer:

☐ IR - 111531565 'D'

☒ IR - 111531506 'E'

☐ IR - 61854108 'Front'

☐ 101681126

Courier:

☐ UPS

☒ FedEx

☐ FedEx Ground

☐ US Postal Service

☐ Spee-Dee

☐ TA Courier

☐ TA Field Services

☐ Client

☐ Other

Custody seals present?

☒ Yes

Custody seals intact?

☒ Yes ☐ No

☐ Non-Conformance report started

Exceptions Noted

☐ Sample(s) not received in a cooler.

☐ Samples(s) received same day of sampling.

☐ Evidence of a chilling process

☐ No Temp. Blank. Inside temperature of cooler recorded.

☐ Temperature not taken:

_____

***Refer to SOP CF-SS-01 for Temperature Criteria**

ANALYTICAL REPORT

Lab Number:	L1222419
Client:	Golder Associates 670 North Commercial St. Suite 103 Manchester, NH 03101
ATTN:	Jim Peace
Phone:	(603) 668-0880
Project Name:	JEFFERSON, IOWA
Project Number:	103-87305
Report Date:	12/28/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: JEFFERSON, IOWA
Project Number: 103-87305

Lab Number: L1222419
Report Date: 12/28/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1222419-01	LIF-1-4.5'	Not Specified	11/14/12 17:25
L1222419-02	LIF-3-10.5'	Not Specified	11/14/12 17:07
L1222419-03	LIF-8-7.5'	Not Specified	11/14/12 16:22
L1222419-04	LIF-12-8'	Not Specified	11/14/12 16:00

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419
Project Number: 103-87305 **Report Date:** 12/28/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419
Project Number: 103-87305 **Report Date:** 12/28/12

Case Narrative (continued)

PIANO Volatiles by GC/MS

The associated samples were analyzed after the hold time had expired per client request.

Samples L1222419-03 and L1222419-04 were re-analyzed at a 5X and 10X dilution respectively, due to over-calibration concentrations of target compounds. The diluted analysis is only quantified for those compounds which were detected over the calibration range of the analytical instrument in the initial analysis.

Total Petroleum Hydrocarbons (TPH) by GC/FID

The sample was extracted and then analyzed using a gas chromatograph equipped with a flame ionization detector (GC/FID). The temperature program and associated experimental conditions were optimized to obtain maximum resolution in an eighty minute chromatographic run representative of hydrocarbons in the n-Octane (C8) to n-Tetracontane (C40) range. Qualitative evaluation of the sample is conducted by reviewing the sample chromatogram in conjunction with a chromatogram of a normal alkane series generated with the same chromatographic conditions. Chromatograms of hydrocarbon reference materials obtained from our library of 45 reference standards are also utilized to provide the best possible sample match. Quantitative determination of the sample hydrocarbon concentration is performed in accordance with EPA Method 8015M. The sample total hydrocarbon concentration and all associated quality control data are included in the report.

All quality control parameters met the specified criteria.

The following qualitative information is based on a tentative interpretation of chromatographic pattern recognition and boiling point ranges:

Total Petroleum Hydrocarbon Identification

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419
Project Number: 103-87305 **Report Date:** 12/28/12

Case Narrative (continued)

Samples LIF-1-4.5' (L1222419-01), LIF-8-7.5' (L1213507-03) and LIF-12-8' (1222419-04) contains hydrocarbons eluting in the range prior to the elution of n-Nonane (C9) to after the elution of n-Tetracontane (C40).

Based on the data generated samples, Samples LIF-1-4.5' (L1222419-01), LIF-8-7.5' (L1213507-03) and LIF-12-8' (1222419-04), contain material eluting in the low and mid to high molecular weight ranges of the chromatogram. The material appears to be similar to a combination of mineral spirits and cutting oil/mystery oil type product. This combination is indicative of cutting oils. In an analysis of an undegraded product the n-alkanes are typically the dominant constituents, as seen in the petroleum reference chromatogram. As the product degrades, the n-alkanes are preferentially digested, leaving behind other constituents such as isoprenoids.

The analytical testing of the samples identified a pattern of constituents such as isoprenoids. The absence of alkanes and presence of constituents such as isoprenoids indicate that the product has undergone degradation in samples LIF-1-4.5' (L1222419-01) and LIF-8-7.5'' (L1213507-03). Sample LIF-12-8' (1222419-04) shows the presence of alkanes indicating the product is relatively fresh.

Sample LIF-8-7.5' (L1213507-03) contains hydrocarbons eluting in the range prior to the elution of n-Decane (C10) to after the elution of n-Tetracontane (C40). Based on the data generated samples, sample LIF-8-7.5' (L1213507-03), contains material eluting in the mid- to high molecular weight ranges of the chromatogram. The material appears to be similar to a hydraulic oil material however this is not an identical chromatographic match to any reference standard contained in the petroleum library. In addition, there are three extraneous peaks which elute in the n-Decane (C10) to n-Dodecane (C12) range which cannot be identified under this method.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 12/28/12

ORGANICS

VOLATILES

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-01	Date Collected:	11/14/12 17:25
Client ID:	LIF-1-4.5'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/13/12 17:28		
Analyst:	MR		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
3-Methyl-1-butene	ND		ug/kg	77.4	--	1
Isopentane	ND		ug/kg	77.4	--	1
1-Pentene	ND		ug/kg	77.4	--	1
2-Methyl-1-Butene	ND		ug/kg	77.4	--	1
Pentane	ND		ug/kg	77.4	--	1
trans-2-Pentene	ND		ug/kg	77.4	--	1
Isoprene	ND		ug/kg	77.4	--	1
cis-2-Pentene	ND		ug/kg	77.4	--	1
Tertiary Butanol	ND		ug/kg	774	--	1
2,2-Dimethylbutane	ND		ug/kg	77.4	--	1
4-Methyl-1-pentene	ND		ug/kg	77.4	--	1
Cyclopentane	ND		ug/kg	77.4	--	1
2,3-Dimethylbutane	ND		ug/kg	77.4	--	1
2-Methylpentane	ND		ug/kg	77.4	--	1
Methyl tert butyl ether	ND		ug/kg	77.4	--	1
3-Methylpentane	ND		ug/kg	77.4	--	1
1-Hexene	ND		ug/kg	77.4	--	1
n-Hexane	ND		ug/kg	77.4	--	1
Isopropyl Ether	ND		ug/kg	77.4	--	1
trans-2-Hexene	ND		ug/kg	77.4	--	1
2-Methyl-2-pentene	ND		ug/kg	77.4	--	1
cis-2-Hexene	ND		ug/kg	77.4	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	77.4	--	1
2,2-Dimethylpentane	ND		ug/kg	77.4	--	1
Methylcyclopentane	ND		ug/kg	77.4	--	1
2,4-Dimethylpentane	ND		ug/kg	77.4	--	1
2,2,3-Trimethylbutane	ND		ug/kg	77.4	--	1
1,2-Dichloroethane	ND		ug/kg	77.4	--	1
3,3-Dimethylpentane	ND		ug/kg	77.4	--	1
Cyclohexane	ND		ug/kg	77.4	--	1
2-Methylhexane	ND		ug/kg	77.4	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-01 Date Collected: 11/14/12 17:25

Client ID: LIF-1-4.5' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
Benzene	ND		ug/kg	77.4	--	1
2,3-Dimethylpentane	ND		ug/kg	77.4	--	1
Thiophene	ND		ug/kg	77.4	--	1
1,1-Dimethylcyclopentane	ND		ug/kg	77.4	--	1
3-Methylhexane	ND		ug/kg	77.4	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	77.4	--	1
1,3-Dimethylcyclopentane (cis)	ND		ug/kg	77.4	--	1
3-Ethylpentane	ND		ug/kg	77.4	--	1
1,3-DMCP (trans)/2-Methyl-1-hexene	ND		ug/kg	155	--	1
1-Heptene/1,2-DMCP (trans)	ND		ug/kg	155	--	1
Isooctane	ND		ug/kg	77.4	--	1
trans-3-Heptene	ND		ug/kg	77.4	--	1
Heptane	ND		ug/kg	77.4	--	1
cis-3-Heptene	ND		ug/kg	77.4	--	1
trans-2-Heptene	ND		ug/kg	77.4	--	1
cis-2-Heptene	ND		ug/kg	77.4	--	1
2,2-Dimethylhexane	ND		ug/kg	77.4	--	1
Methylcyclohexane	ND		ug/kg	77.4	--	1
2,5-Dimethylhexane	ND		ug/kg	77.4	--	1
2,4-Dimethylhexane	ND		ug/kg	77.4	--	1
Ethylcyclopentane	ND		ug/kg	77.4	--	1
2,2,3-Trimethylpentane	ND		ug/kg	77.4	--	1
1,2,3-Trimethylcyclopentane (ctc)	ND		ug/kg	77.4	--	1
2,3,4-Trimethylpentane	ND		ug/kg	77.4	--	1
2,3,3-Trimethylpentane	ND		ug/kg	77.4	--	1
2,3-Dimethylhexane	ND		ug/kg	77.4	--	1
2-Methylheptane	ND		ug/kg	77.4	--	1
4-Methylheptane	ND		ug/kg	77.4	--	1
3-Methylheptane	ND		ug/kg	77.4	--	1
3-Ethylhexane	ND		ug/kg	77.4	--	1
Toluene	ND		ug/kg	77.4	--	1
2-Methylthiophene	ND		ug/kg	77.4	--	1
1,4-Dimethylcyclohexane (trans)	ND		ug/kg	77.4	--	1
3-Methylthiophene	ND		ug/kg	77.4	--	1
1-Octene	ND		ug/kg	77.4	--	1
Octane	ND		ug/kg	77.4	--	1
1,2-Dimethylcyclohexane (trans)	ND		ug/kg	77.4	--	1
1,2-Dibromoethane	ND		ug/kg	77.4	--	1
1,2,3-TMCP (ccc)/2-Octene (trans)	ND		ug/kg	155	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-01 Date Collected: 11/14/12 17:25

Client ID: LIF-1-4.5' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
cis-2-Octene	ND		ug/kg	77.4	--	1
Isopropylcyclopentane	ND		ug/kg	77.4	--	1
1,2-Dimethylcyclohexane (cis)	ND		ug/kg	77.4	--	1
2,5-Dimethylheptane	ND		ug/kg	77.4	--	1
3,5-Dimethylheptane	ND		ug/kg	77.4	--	1
3,3-Dimethylheptane	ND		ug/kg	77.4	--	1
1,1,4-Trimethylcyclohexane	ND		ug/kg	77.4	--	1
2,3-Dimethylheptane	ND		ug/kg	77.4	--	1
3,4-Dimethylheptane	ND		ug/kg	77.4	--	1
4-Methyloctane	ND		ug/kg	77.4	--	1
2-Methyloctane	ND		ug/kg	77.4	--	1
Ethylbenzene	ND		ug/kg	77.4	--	1
2-Ethylthiophene	ND		ug/kg	77.4	--	1
3-Methyloctane	82.5		ug/kg	77.4	--	1
3,3-Diethylpentane	ND		ug/kg	77.4	--	1
p/m-Xylene	ND		ug/kg	155	--	1
1-Nonene	ND		ug/kg	194	--	1
trans-3-Nonene	ND		ug/kg	77.4	--	1
cis-3-Nonene	ND		ug/kg	77.4	--	1
Nonane (C9)	272		ug/kg	77.4	--	1
Styrene	ND		ug/kg	77.4	--	1
o-Xylene	ND		ug/kg	77.4	--	1
2-Nonene	ND		ug/kg	77.4	--	1
Isopropylcyclohexane	ND		ug/kg	77.4	--	1
Isopropylbenzene	ND		ug/kg	77.4	--	1
3,3-Dimethyloctane	ND		ug/kg	77.4	--	1
n-Propylbenzene	ND		ug/kg	77.4	--	1
2-Methylnonane	200		ug/kg	77.4	--	1
3-Methylnonane	195		ug/kg	77.4	--	1
1-Methyl-3-Ethylbenzene	ND		ug/kg	77.4	--	1
1-Methyl-4-Ethylbenzene	ND		ug/kg	77.4	--	1
1,3,5-Trimethylbenzene	91.0		ug/kg	77.4	--	1
1-Decene	ND		ug/kg	77.4	--	1
Isobutylcyclohexane	ND		ug/kg	77.4	--	1
1-Methyl-2-Ethylbenzene	130		ug/kg	77.4	--	1
Decane (C10)	765		ug/kg	77.4	--	1
tert-Butylbenzene	ND		ug/kg	77.4	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	77.4	--	1
Isobutylbenzene	ND		ug/kg	77.4	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-01 Date Collected: 11/14/12 17:25

Client ID: LIF-1-4.5' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
sec-Butylbenzene	ND		ug/kg	77.4	--	1
1-Methyl-3-Isopropylbenzene	144		ug/kg	77.4	--	1
1-Methyl-4-Isopropylbenzene	ND		ug/kg	77.4	--	1
1,2,3-Trimethylbenzene	402		ug/kg	77.4	--	1
1-Methyl-2-Isopropylbenzene	ND		ug/kg	77.4	--	1
Indane	ND		ug/kg	77.4	--	1
1,3-Diethylbenzene	111		ug/kg	77.4	--	1
1-Methyl-3-N-Propylbenzene	361		ug/kg	77.4	--	1
Indene	ND		ug/kg	77.4	--	1
1-Methyl-4-N-Propylbenzene	132		ug/kg	77.4	--	1
n-Butylbenzene	152		ug/kg	77.4	--	1
1,2-Dimethyl-4-Ethylbenzene	245		ug/kg	77.4	--	1
1,2-Diethylbenzene	ND		ug/kg	77.4	--	1
1-Methyl-2-N-Propylbenzene	251		ug/kg	77.4	--	1
1,4-Dimethyl-2-Ethylbenzene	202		ug/kg	77.4	--	1
Undecane	807		ug/kg	77.4	--	1
1,3-Dimethyl-4-Ethylbenzene	265		ug/kg	77.4	--	1
1,3-Dimethyl-5-Ethylbenzene	384		ug/kg	77.4	--	1
1,3-Dimethyl-2-Ethylbenzene	127		ug/kg	77.4	--	1
1,2-Dimethyl-3-Ethylbenzene	202		ug/kg	77.4	--	1
1,2,4,5-Tetramethylbenzene	208		ug/kg	77.4	--	1
1,2,3,5-Tetramethylbenzene	542		ug/kg	77.4	--	1
N-Pentylbenzene	ND		ug/kg	77.4	--	1
1,2,3,4-Tetramethylbenzene	ND		ug/kg	77.4	--	1
1,3-Dimethyl-5-tert-Butylbenzene	ND		ug/kg	77.4	--	1
Dodecane (C12)	ND		ug/kg	77.4	--	1
1,3,5-Triethylbenzene	ND		ug/kg	77.4	--	1
Naphthalene	ND		ug/kg	77.4	--	1
Benzothiophene	ND		ug/kg	77.4	--	1
1,2,4-Triethylbenzene	ND		ug/kg	77.4	--	1
Hexylbenzene	ND		ug/kg	77.4	--	1
MMT	ND		ug/kg	194	--	1
Tridecane	ND		ug/kg	194	--	1
2-Methylnaphthalene	ND		ug/kg	194	--	1
1-Methylnaphthalene	ND		ug/kg	194	--	1
Tetradecane (C14)	ND		ug/kg	194	--	1
Pentadecane	ND		ug/kg	194	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-01	Date Collected:	11/14/12 17:25
Client ID:	LIF-1-4.5'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Dibromofluoromethane	105		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-02	Date Collected:	11/14/12 17:07
Client ID:	LIF-3-10.5'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/13/12 18:40		
Analyst:	MR		
Percent Solids:	87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
3-Methyl-1-butene	ND		ug/kg	79.3	--	1
Isopentane	ND		ug/kg	79.3	--	1
1-Pentene	ND		ug/kg	79.3	--	1
2-Methyl-1-Butene	ND		ug/kg	79.3	--	1
Pentane	ND		ug/kg	79.3	--	1
trans-2-Pentene	ND		ug/kg	79.3	--	1
Isoprene	ND		ug/kg	79.3	--	1
cis-2-Pentene	ND		ug/kg	79.3	--	1
Tertiary Butanol	ND		ug/kg	793	--	1
2,2-Dimethylbutane	ND		ug/kg	79.3	--	1
4-Methyl-1-pentene	ND		ug/kg	79.3	--	1
Cyclopentane	ND		ug/kg	79.3	--	1
2,3-Dimethylbutane	ND		ug/kg	79.3	--	1
2-Methylpentane	ND		ug/kg	79.3	--	1
Methyl tert butyl ether	ND		ug/kg	79.3	--	1
3-Methylpentane	ND		ug/kg	79.3	--	1
1-Hexene	ND		ug/kg	79.3	--	1
n-Hexane	ND		ug/kg	79.3	--	1
Isopropyl Ether	ND		ug/kg	79.3	--	1
trans-2-Hexene	ND		ug/kg	79.3	--	1
2-Methyl-2-pentene	ND		ug/kg	79.3	--	1
cis-2-Hexene	ND		ug/kg	79.3	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	79.3	--	1
2,2-Dimethylpentane	ND		ug/kg	79.3	--	1
Methylcyclopentane	ND		ug/kg	79.3	--	1
2,4-Dimethylpentane	ND		ug/kg	79.3	--	1
2,2,3-Trimethylbutane	ND		ug/kg	79.3	--	1
1,2-Dichloroethane	ND		ug/kg	79.3	--	1
3,3-Dimethylpentane	ND		ug/kg	79.3	--	1
Cyclohexane	ND		ug/kg	79.3	--	1
2-Methylhexane	ND		ug/kg	79.3	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-02 Date Collected: 11/14/12 17:07

Client ID: LIF-3-10.5' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
Benzene	ND		ug/kg	79.3	--	1
2,3-Dimethylpentane	ND		ug/kg	79.3	--	1
Thiophene	ND		ug/kg	79.3	--	1
1,1-Dimethylcyclopentane	ND		ug/kg	79.3	--	1
3-Methylhexane	ND		ug/kg	79.3	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	79.3	--	1
1,3-Dimethylcyclopentane (cis)	ND		ug/kg	79.3	--	1
3-Ethylpentane	ND		ug/kg	79.3	--	1
1,3-DMCP (trans)/2-Methyl-1-hexene	ND		ug/kg	158	--	1
1-Heptene/1,2-DMCP (trans)	ND		ug/kg	158	--	1
Isooctane	ND		ug/kg	79.3	--	1
trans-3-Heptene	ND		ug/kg	79.3	--	1
Heptane	ND		ug/kg	79.3	--	1
cis-3-Heptene	ND		ug/kg	79.3	--	1
trans-2-Heptene	ND		ug/kg	79.3	--	1
cis-2-Heptene	ND		ug/kg	79.3	--	1
2,2-Dimethylhexane	ND		ug/kg	79.3	--	1
Methylcyclohexane	ND		ug/kg	79.3	--	1
2,5-Dimethylhexane	ND		ug/kg	79.3	--	1
2,4-Dimethylhexane	ND		ug/kg	79.3	--	1
Ethylcyclopentane	ND		ug/kg	79.3	--	1
2,2,3-Trimethylpentane	ND		ug/kg	79.3	--	1
1,2,3-Trimethylcyclopentane (ctc)	ND		ug/kg	79.3	--	1
2,3,4-Trimethylpentane	ND		ug/kg	79.3	--	1
2,3,3-Trimethylpentane	ND		ug/kg	79.3	--	1
2,3-Dimethylhexane	ND		ug/kg	79.3	--	1
2-Methylheptane	ND		ug/kg	79.3	--	1
4-Methylheptane	ND		ug/kg	79.3	--	1
3-Methylheptane	ND		ug/kg	79.3	--	1
3-Ethylhexane	ND		ug/kg	79.3	--	1
Toluene	ND		ug/kg	79.3	--	1
2-Methylthiophene	ND		ug/kg	79.3	--	1
1,4-Dimethylcyclohexane (trans)	ND		ug/kg	79.3	--	1
3-Methylthiophene	ND		ug/kg	79.3	--	1
1-Octene	ND		ug/kg	79.3	--	1
Octane	ND		ug/kg	79.3	--	1
1,2-Dimethylcyclohexane (trans)	ND		ug/kg	79.3	--	1
1,2-Dibromoethane	ND		ug/kg	79.3	--	1
1,2,3-TMCP (ccc)/2-Octene (trans)	ND		ug/kg	158	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-02 Date Collected: 11/14/12 17:07

Client ID: LIF-3-10.5' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
cis-2-Octene	ND		ug/kg	79.3	--	1
Isopropylcyclopentane	ND		ug/kg	79.3	--	1
1,2-Dimethylcyclohexane (cis)	ND		ug/kg	79.3	--	1
2,5-Dimethylheptane	ND		ug/kg	79.3	--	1
3,5-Dimethylheptane	ND		ug/kg	79.3	--	1
3,3-Dimethylheptane	ND		ug/kg	79.3	--	1
1,1,4-Trimethylcyclohexane	ND		ug/kg	79.3	--	1
2,3-Dimethylheptane	ND		ug/kg	79.3	--	1
3,4-Dimethylheptane	ND		ug/kg	79.3	--	1
4-Methyloctane	ND		ug/kg	79.3	--	1
2-Methyloctane	ND		ug/kg	79.3	--	1
Ethylbenzene	ND		ug/kg	79.3	--	1
2-Ethylthiophene	ND		ug/kg	79.3	--	1
3-Methyloctane	ND		ug/kg	79.3	--	1
3,3-Diethylpentane	ND		ug/kg	79.3	--	1
p/m-Xylene	ND		ug/kg	158	--	1
1-Nonene	ND		ug/kg	198	--	1
trans-3-Nonene	ND		ug/kg	79.3	--	1
cis-3-Nonene	ND		ug/kg	79.3	--	1
Nonane (C9)	ND		ug/kg	79.3	--	1
Styrene	ND		ug/kg	79.3	--	1
o-Xylene	ND		ug/kg	79.3	--	1
2-Nonene	ND		ug/kg	79.3	--	1
Isopropylcyclohexane	ND		ug/kg	79.3	--	1
Isopropylbenzene	ND		ug/kg	79.3	--	1
3,3-Dimethyloctane	ND		ug/kg	79.3	--	1
n-Propylbenzene	ND		ug/kg	79.3	--	1
2-Methylnonane	ND		ug/kg	79.3	--	1
3-Methylnonane	ND		ug/kg	79.3	--	1
1-Methyl-3-Ethylbenzene	ND		ug/kg	79.3	--	1
1-Methyl-4-Ethylbenzene	ND		ug/kg	79.3	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	79.3	--	1
1-Decene	ND		ug/kg	79.3	--	1
Isobutylcyclohexane	ND		ug/kg	79.3	--	1
1-Methyl-2-Ethylbenzene	ND		ug/kg	79.3	--	1
Decane (C10)	ND		ug/kg	79.3	--	1
tert-Butylbenzene	ND		ug/kg	79.3	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	79.3	--	1
Isobutylbenzene	ND		ug/kg	79.3	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-02 Date Collected: 11/14/12 17:07

Client ID: LIF-3-10.5' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
sec-Butylbenzene	ND		ug/kg	79.3	--	1
1-Methyl-3-Isopropylbenzene	ND		ug/kg	79.3	--	1
1-Methyl-4-Isopropylbenzene	134		ug/kg	79.3	--	1
1,2,3-Trimethylbenzene	ND		ug/kg	79.3	--	1
1-Methyl-2-Isopropylbenzene	ND		ug/kg	79.3	--	1
Indane	ND		ug/kg	79.3	--	1
1,3-Diethylbenzene	ND		ug/kg	79.3	--	1
1-Methyl-3-N-Propylbenzene	ND		ug/kg	79.3	--	1
Indene	ND		ug/kg	79.3	--	1
1-Methyl-4-N-Propylbenzene	ND		ug/kg	79.3	--	1
n-Butylbenzene	ND		ug/kg	79.3	--	1
1,2-Dimethyl-4-Ethylbenzene	ND		ug/kg	79.3	--	1
1,2-Diethylbenzene	ND		ug/kg	79.3	--	1
1-Methyl-2-N-Propylbenzene	ND		ug/kg	79.3	--	1
1,4-Dimethyl-2-Ethylbenzene	ND		ug/kg	79.3	--	1
Undecane	ND		ug/kg	79.3	--	1
1,3-Dimethyl-4-Ethylbenzene	ND		ug/kg	79.3	--	1
1,3-Dimethyl-5-Ethylbenzene	ND		ug/kg	79.3	--	1
1,3-Dimethyl-2-Ethylbenzene	ND		ug/kg	79.3	--	1
1,2-Dimethyl-3-Ethylbenzene	ND		ug/kg	79.3	--	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	79.3	--	1
1,2,3,5-Tetramethylbenzene	ND		ug/kg	79.3	--	1
N-Pentylbenzene	ND		ug/kg	79.3	--	1
1,2,3,4-Tetramethylbenzene	ND		ug/kg	79.3	--	1
1,3-Dimethyl-5-tert-Butylbenzene	ND		ug/kg	79.3	--	1
Dodecane (C12)	ND		ug/kg	79.3	--	1
1,3,5-Triethylbenzene	ND		ug/kg	79.3	--	1
Naphthalene	ND		ug/kg	79.3	--	1
Benzothiophene	ND		ug/kg	79.3	--	1
1,2,4-Triethylbenzene	ND		ug/kg	79.3	--	1
Hexylbenzene	ND		ug/kg	79.3	--	1
MMT	ND		ug/kg	198	--	1
Tridecane	ND		ug/kg	198	--	1
2-Methylnaphthalene	ND		ug/kg	198	--	1
1-Methylnaphthalene	ND		ug/kg	198	--	1
Tetradecane (C14)	ND		ug/kg	198	--	1
Pentadecane	ND		ug/kg	198	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-02	Date Collected:	11/14/12 17:07
Client ID:	LIF-3-10.5'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Dibromofluoromethane	106		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	99		70-130

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-03	Date Collected:	11/14/12 16:22
Client ID:	LIF-8-7.5'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/13/12 22:19		
Analyst:	MR		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
3-Methyl-1-butene	ND		ug/kg	79.4	--	1
Isopentane	ND		ug/kg	79.4	--	1
1-Pentene	ND		ug/kg	79.4	--	1
2-Methyl-1-Butene	ND		ug/kg	79.4	--	1
Pentane	ND		ug/kg	79.4	--	1
trans-2-Pentene	ND		ug/kg	79.4	--	1
Isoprene	ND		ug/kg	79.4	--	1
cis-2-Pentene	ND		ug/kg	79.4	--	1
Tertiary Butanol	ND		ug/kg	794	--	1
2,2-Dimethylbutane	ND		ug/kg	79.4	--	1
4-Methyl-1-pentene	ND		ug/kg	79.4	--	1
Cyclopentane	ND		ug/kg	79.4	--	1
2,3-Dimethylbutane	ND		ug/kg	79.4	--	1
2-Methylpentane	ND		ug/kg	79.4	--	1
Methyl tert butyl ether	ND		ug/kg	79.4	--	1
3-Methylpentane	ND		ug/kg	79.4	--	1
1-Hexene	ND		ug/kg	79.4	--	1
n-Hexane	ND		ug/kg	79.4	--	1
Isopropyl Ether	ND		ug/kg	79.4	--	1
trans-2-Hexene	ND		ug/kg	79.4	--	1
2-Methyl-2-pentene	ND		ug/kg	79.4	--	1
cis-2-Hexene	ND		ug/kg	79.4	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	79.4	--	1
2,2-Dimethylpentane	ND		ug/kg	79.4	--	1
Methylcyclopentane	ND		ug/kg	79.4	--	1
2,4-Dimethylpentane	ND		ug/kg	79.4	--	1
2,2,3-Trimethylbutane	ND		ug/kg	79.4	--	1
1,2-Dichloroethane	ND		ug/kg	79.4	--	1
3,3-Dimethylpentane	ND		ug/kg	79.4	--	1
Cyclohexane	ND		ug/kg	79.4	--	1
2-Methylhexane	ND		ug/kg	79.4	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-03 Date Collected: 11/14/12 16:22

Client ID: LIF-8-7.5' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
Benzene	ND		ug/kg	79.4	--	1
2,3-Dimethylpentane	ND		ug/kg	79.4	--	1
Thiophene	ND		ug/kg	79.4	--	1
1,1-Dimethylcyclopentane	ND		ug/kg	79.4	--	1
3-Methylhexane	ND		ug/kg	79.4	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	79.4	--	1
1,3-Dimethylcyclopentane (cis)	ND		ug/kg	79.4	--	1
3-Ethylpentane	ND		ug/kg	79.4	--	1
1,3-DMCP (trans)/2-Methyl-1-hexene	ND		ug/kg	159	--	1
1-Heptene/1,2-DMCP (trans)	ND		ug/kg	159	--	1
Isooctane	ND		ug/kg	79.4	--	1
trans-3-Heptene	ND		ug/kg	79.4	--	1
Heptane	ND		ug/kg	79.4	--	1
cis-3-Heptene	ND		ug/kg	79.4	--	1
trans-2-Heptene	ND		ug/kg	79.4	--	1
cis-2-Heptene	ND		ug/kg	79.4	--	1
2,2-Dimethylhexane	ND		ug/kg	79.4	--	1
Methylcyclohexane	ND		ug/kg	79.4	--	1
2,5-Dimethylhexane	ND		ug/kg	79.4	--	1
2,4-Dimethylhexane	ND		ug/kg	79.4	--	1
Ethylcyclopentane	ND		ug/kg	79.4	--	1
2,2,3-Trimethylpentane	ND		ug/kg	79.4	--	1
1,2,3-Trimethylcyclopentane (ctc)	ND		ug/kg	79.4	--	1
2,3,4-Trimethylpentane	ND		ug/kg	79.4	--	1
2,3,3-Trimethylpentane	ND		ug/kg	79.4	--	1
2,3-Dimethylhexane	ND		ug/kg	79.4	--	1
2-Methylheptane	ND		ug/kg	79.4	--	1
4-Methylheptane	ND		ug/kg	79.4	--	1
3-Methylheptane	ND		ug/kg	79.4	--	1
3-Ethylhexane	ND		ug/kg	79.4	--	1
Toluene	ND		ug/kg	79.4	--	1
2-Methylthiophene	ND		ug/kg	79.4	--	1
1,4-Dimethylcyclohexane (trans)	ND		ug/kg	79.4	--	1
3-Methylthiophene	ND		ug/kg	79.4	--	1
1-Octene	ND		ug/kg	79.4	--	1
Octane	98.4		ug/kg	79.4	--	1
1,2-Dimethylcyclohexane (trans)	ND		ug/kg	79.4	--	1
1,2-Dibromoethane	ND		ug/kg	79.4	--	1
1,2,3-TMCP (ccc)/2-Octene (trans)	ND		ug/kg	159	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-03 Date Collected: 11/14/12 16:22

Client ID: LIF-8-7.5' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
cis-2-Octene	ND		ug/kg	79.4	--	1
Isopropylcyclopentane	ND		ug/kg	79.4	--	1
1,2-Dimethylcyclohexane (cis)	152		ug/kg	79.4	--	1
2,5-Dimethylheptane	116		ug/kg	79.4	--	1
3,5-Dimethylheptane	ND		ug/kg	79.4	--	1
3,3-Dimethylheptane	ND		ug/kg	79.4	--	1
1,1,4-Trimethylcyclohexane	155		ug/kg	79.4	--	1
2,3-Dimethylheptane	388		ug/kg	79.4	--	1
3,4-Dimethylheptane	245		ug/kg	79.4	--	1
4-Methyloctane	473		ug/kg	79.4	--	1
2-Methyloctane	796		ug/kg	79.4	--	1
Ethylbenzene	226		ug/kg	79.4	--	1
2-Ethylthiophene	ND		ug/kg	79.4	--	1
3-Methyloctane	1080		ug/kg	79.4	--	1
3,3-Diethylpentane	ND		ug/kg	79.4	--	1
p/m-Xylene	1110		ug/kg	159	--	1
1-Nonene	ND		ug/kg	198	--	1
trans-3-Nonene	ND		ug/kg	79.4	--	1
cis-3-Nonene	ND		ug/kg	79.4	--	1
Nonane (C9)	8240	E	ug/kg	79.4	--	1
Styrene	ND		ug/kg	79.4	--	1
o-Xylene	1380		ug/kg	79.4	--	1
2-Nonene	ND		ug/kg	79.4	--	1
Isopropylcyclohexane	986		ug/kg	79.4	--	1
Isopropylbenzene	958		ug/kg	79.4	--	1
3,3-Dimethyloctane	398		ug/kg	79.4	--	1
n-Propylbenzene	2530		ug/kg	79.4	--	1
2-Methylnonane	2840		ug/kg	79.4	--	1
3-Methylnonane	2620		ug/kg	79.4	--	1
1-Methyl-3-Ethylbenzene	5610		ug/kg	79.4	--	1
1-Methyl-4-Ethylbenzene	2130		ug/kg	79.4	--	1
1,3,5-Trimethylbenzene	5090		ug/kg	79.4	--	1
1-Decene	ND		ug/kg	79.4	--	1
Isobutylcyclohexane	742		ug/kg	79.4	--	1
1-Methyl-2-Ethylbenzene	3680		ug/kg	79.4	--	1
Decane (C10)	17100	E	ug/kg	79.4	--	1
tert-Butylbenzene	144		ug/kg	79.4	--	1
1,2,4-Trimethylbenzene	15200	E	ug/kg	79.4	--	1
Isobutylbenzene	834		ug/kg	79.4	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-03 Date Collected: 11/14/12 16:22

Client ID: LIF-8-7.5' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
sec-Butylbenzene	1810		ug/kg	79.4	--	1
1-Methyl-3-Isopropylbenzene	2800		ug/kg	79.4	--	1
1-Methyl-4-Isopropylbenzene	1480		ug/kg	79.4	--	1
1,2,3-Trimethylbenzene	9560	E	ug/kg	79.4	--	1
1-Methyl-2-Isopropylbenzene	450		ug/kg	79.4	--	1
Indane	725		ug/kg	79.4	--	1
1,3-Diethylbenzene	1890		ug/kg	79.4	--	1
1-Methyl-3-N-Propylbenzene	5270		ug/kg	79.4	--	1
Indene	ND		ug/kg	79.4	--	1
1-Methyl-4-N-Propylbenzene	2170		ug/kg	79.4	--	1
n-Butylbenzene	2560		ug/kg	79.4	--	1
1,2-Dimethyl-4-Ethylbenzene	3940		ug/kg	79.4	--	1
1,2-Diethylbenzene	705		ug/kg	79.4	--	1
1-Methyl-2-N-Propylbenzene	2830		ug/kg	79.4	--	1
1,4-Dimethyl-2-Ethylbenzene	2900		ug/kg	79.4	--	1
Undecane	7560		ug/kg	79.4	--	1
1,3-Dimethyl-4-Ethylbenzene	3440		ug/kg	79.4	--	1
1,3-Dimethyl-5-Ethylbenzene	4240		ug/kg	79.4	--	1
1,3-Dimethyl-2-Ethylbenzene	1260		ug/kg	79.4	--	1
1,2-Dimethyl-3-Ethylbenzene	1930		ug/kg	79.4	--	1
1,2,4,5-Tetramethylbenzene	1880		ug/kg	79.4	--	1
1,2,3,5-Tetramethylbenzene	3960		ug/kg	79.4	--	1
N-Pentylbenzene	443		ug/kg	79.4	--	1
1,2,3,4-Tetramethylbenzene	3330		ug/kg	79.4	--	1
1,3-Dimethyl-5-tert-Butylbenzene	ND		ug/kg	79.4	--	1
Dodecane (C12)	210		ug/kg	79.4	--	1
1,3,5-Triethylbenzene	ND		ug/kg	79.4	--	1
Naphthalene	2650		ug/kg	79.4	--	1
Benzothiophene	ND		ug/kg	79.4	--	1
1,2,4-Triethylbenzene	ND		ug/kg	79.4	--	1
Hexylbenzene	ND		ug/kg	79.4	--	1
MMT	ND		ug/kg	198	--	1
Tridecane	ND		ug/kg	198	--	1
2-Methylnaphthalene	960		ug/kg	198	--	1
1-Methylnaphthalene	750		ug/kg	198	--	1
Tetradecane (C14)	ND		ug/kg	198	--	1
Pentadecane	ND		ug/kg	198	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-03	Date Collected:	11/14/12 16:22
Client ID:	LIF-8-7.5'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Dibromofluoromethane	104		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	111		70-130

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-03	D	Date Collected:	11/14/12 16:22
Client ID:	LIF-8-7.5'		Date Received:	11/16/12
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Soil			
Analytical Method:	1,8260B			
Analytical Date:	12/13/12 19:53			
Analyst:	MR			
Percent Solids:	84%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
Nonane (C9)	7270		ug/kg	397	--	5
Decane (C10)	15000		ug/kg	397	--	5
1,2,4-Trimethylbenzene	13000		ug/kg	397	--	5
1,2,3-Trimethylbenzene	8190		ug/kg	397	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Dibromofluoromethane	107		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-04	Date Collected:	11/14/12 16:00
Client ID:	LIF-12-8'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/13/12 23:31		
Analyst:	MR		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
3-Methyl-1-butene	ND		ug/kg	89.0	--	1
Isopentane	ND		ug/kg	89.0	--	1
1-Pentene	ND		ug/kg	89.0	--	1
2-Methyl-1-Butene	ND		ug/kg	89.0	--	1
Pentane	ND		ug/kg	89.0	--	1
trans-2-Pentene	ND		ug/kg	89.0	--	1
Isoprene	ND		ug/kg	89.0	--	1
cis-2-Pentene	ND		ug/kg	89.0	--	1
Tertiary Butanol	ND		ug/kg	890	--	1
2,2-Dimethylbutane	ND		ug/kg	89.0	--	1
4-Methyl-1-pentene	ND		ug/kg	89.0	--	1
Cyclopentane	ND		ug/kg	89.0	--	1
2,3-Dimethylbutane	ND		ug/kg	89.0	--	1
2-Methylpentane	ND		ug/kg	89.0	--	1
Methyl tert butyl ether	ND		ug/kg	89.0	--	1
3-Methylpentane	ND		ug/kg	89.0	--	1
1-Hexene	ND		ug/kg	89.0	--	1
n-Hexane	ND		ug/kg	89.0	--	1
Isopropyl Ether	ND		ug/kg	89.0	--	1
trans-2-Hexene	ND		ug/kg	89.0	--	1
2-Methyl-2-pentene	ND		ug/kg	89.0	--	1
cis-2-Hexene	ND		ug/kg	89.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	89.0	--	1
2,2-Dimethylpentane	ND		ug/kg	89.0	--	1
Methylcyclopentane	ND		ug/kg	89.0	--	1
2,4-Dimethylpentane	ND		ug/kg	89.0	--	1
2,2,3-Trimethylbutane	ND		ug/kg	89.0	--	1
1,2-Dichloroethane	ND		ug/kg	89.0	--	1
3,3-Dimethylpentane	ND		ug/kg	89.0	--	1
Cyclohexane	ND		ug/kg	89.0	--	1
2-Methylhexane	ND		ug/kg	89.0	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-04 Date Collected: 11/14/12 16:00

Client ID: LIF-12-8' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
Benzene	ND		ug/kg	89.0	--	1
2,3-Dimethylpentane	ND		ug/kg	89.0	--	1
Thiophene	ND		ug/kg	89.0	--	1
1,1-Dimethylcyclopentane	ND		ug/kg	89.0	--	1
3-Methylhexane	ND		ug/kg	89.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	89.0	--	1
1,3-Dimethylcyclopentane (cis)	ND		ug/kg	89.0	--	1
3-Ethylpentane	ND		ug/kg	89.0	--	1
1,3-DMCP (trans)/2-Methyl-1-hexene	ND		ug/kg	178	--	1
1-Heptene/1,2-DMCP (trans)	ND		ug/kg	178	--	1
Isooctane	ND		ug/kg	89.0	--	1
trans-3-Heptene	ND		ug/kg	89.0	--	1
Heptane	ND		ug/kg	89.0	--	1
cis-3-Heptene	ND		ug/kg	89.0	--	1
trans-2-Heptene	ND		ug/kg	89.0	--	1
cis-2-Heptene	ND		ug/kg	89.0	--	1
2,2-Dimethylhexane	ND		ug/kg	89.0	--	1
Methylcyclohexane	ND		ug/kg	89.0	--	1
2,5-Dimethylhexane	ND		ug/kg	89.0	--	1
2,4-Dimethylhexane	ND		ug/kg	89.0	--	1
Ethylcyclopentane	ND		ug/kg	89.0	--	1
2,2,3-Trimethylpentane	ND		ug/kg	89.0	--	1
1,2,3-Trimethylcyclopentane (ctc)	ND		ug/kg	89.0	--	1
2,3,4-Trimethylpentane	ND		ug/kg	89.0	--	1
2,3,3-Trimethylpentane	ND		ug/kg	89.0	--	1
2,3-Dimethylhexane	ND		ug/kg	89.0	--	1
2-Methylheptane	ND		ug/kg	89.0	--	1
4-Methylheptane	ND		ug/kg	89.0	--	1
3-Methylheptane	ND		ug/kg	89.0	--	1
3-Ethylhexane	ND		ug/kg	89.0	--	1
Toluene	559		ug/kg	89.0	--	1
2-Methylthiophene	ND		ug/kg	89.0	--	1
1,4-Dimethylcyclohexane (trans)	ND		ug/kg	89.0	--	1
3-Methylthiophene	ND		ug/kg	89.0	--	1
1-Octene	ND		ug/kg	89.0	--	1
Octane	247		ug/kg	89.0	--	1
1,2-Dimethylcyclohexane (trans)	126		ug/kg	89.0	--	1
1,2-Dibromoethane	ND		ug/kg	89.0	--	1
1,2,3-TMCP (ccc)/2-Octene (trans)	ND		ug/kg	178	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-04 Date Collected: 11/14/12 16:00

Client ID: LIF-12-8' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
cis-2-Octene	ND		ug/kg	89.0	--	1
Isopropylcyclopentane	ND		ug/kg	89.0	--	1
1,2-Dimethylcyclohexane (cis)	221		ug/kg	89.0	--	1
2,5-Dimethylheptane	226		ug/kg	89.0	--	1
3,5-Dimethylheptane	ND		ug/kg	89.0	--	1
3,3-Dimethylheptane	ND		ug/kg	89.0	--	1
1,1,4-Trimethylcyclohexane	238		ug/kg	89.0	--	1
2,3-Dimethylheptane	624		ug/kg	89.0	--	1
3,4-Dimethylheptane	452		ug/kg	89.0	--	1
4-Methyloctane	929		ug/kg	89.0	--	1
2-Methyloctane	1430		ug/kg	89.0	--	1
Ethylbenzene	1250		ug/kg	89.0	--	1
2-Ethylthiophene	ND		ug/kg	89.0	--	1
3-Methyloctane	1940		ug/kg	89.0	--	1
3,3-Diethylpentane	ND		ug/kg	89.0	--	1
p/m-Xylene	8400		ug/kg	178	--	1
1-Nonene	ND		ug/kg	223	--	1
trans-3-Nonene	ND		ug/kg	89.0	--	1
cis-3-Nonene	ND		ug/kg	89.0	--	1
Nonane (C9)	19000	E	ug/kg	89.0	--	1
Styrene	ND		ug/kg	89.0	--	1
o-Xylene	7150		ug/kg	89.0	--	1
2-Nonene	ND		ug/kg	89.0	--	1
Isopropylcyclohexane	2200		ug/kg	89.0	--	1
Isopropylbenzene	4970		ug/kg	89.0	--	1
3,3-Dimethyloctane	808		ug/kg	89.0	--	1
n-Propylbenzene	14400	E	ug/kg	89.0	--	1
2-Methylnonane	5050		ug/kg	89.0	--	1
3-Methylnonane	4610		ug/kg	89.0	--	1
1-Methyl-3-Ethylbenzene	32400	E	ug/kg	89.0	--	1
1-Methyl-4-Ethylbenzene	14600	E	ug/kg	89.0	--	1
1,3,5-Trimethylbenzene	22100	E	ug/kg	89.0	--	1
1-Decene	ND		ug/kg	89.0	--	1
Isobutylcyclohexane	ND		ug/kg	89.0	--	1
1-Methyl-2-Ethylbenzene	16600	E	ug/kg	89.0	--	1
Decane (C10)	27200	E	ug/kg	89.0	--	1
tert-Butylbenzene	793		ug/kg	89.0	--	1
1,2,4-Trimethylbenzene	59900	E	ug/kg	89.0	--	1
Isobutylbenzene	2780		ug/kg	89.0	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-04 Date Collected: 11/14/12 16:00

Client ID: LIF-12-8' Date Received: 11/16/12

Sample Location: Not Specified Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
sec-Butylbenzene	6440		ug/kg	89.0	--	1
1-Methyl-3-Isopropylbenzene	7580		ug/kg	89.0	--	1
1-Methyl-4-Isopropylbenzene	4490		ug/kg	89.0	--	1
1,2,3-Trimethylbenzene	28100	E	ug/kg	89.0	--	1
1-Methyl-2-Isopropylbenzene	1240		ug/kg	89.0	--	1
Indane	2860		ug/kg	89.0	--	1
1,3-Diethylbenzene	5850		ug/kg	89.0	--	1
1-Methyl-3-N-Propylbenzene	12600	E	ug/kg	89.0	--	1
Indene	ND		ug/kg	89.0	--	1
1-Methyl-4-N-Propylbenzene	5740		ug/kg	89.0	--	1
n-Butylbenzene	6870		ug/kg	89.0	--	1
1,2-Dimethyl-4-Ethylbenzene	9410	E	ug/kg	89.0	--	1
1,2-Diethylbenzene	2040		ug/kg	89.0	--	1
1-Methyl-2-N-Propylbenzene	7140		ug/kg	89.0	--	1
1,4-Dimethyl-2-Ethylbenzene	6800		ug/kg	89.0	--	1
Undecane	8490		ug/kg	89.0	--	1
1,3-Dimethyl-4-Ethylbenzene	7220		ug/kg	89.0	--	1
1,3-Dimethyl-5-Ethylbenzene	8060		ug/kg	89.0	--	1
1,3-Dimethyl-2-Ethylbenzene	2320		ug/kg	89.0	--	1
1,2-Dimethyl-3-Ethylbenzene	3470		ug/kg	89.0	--	1
1,2,4,5-Tetramethylbenzene	2750		ug/kg	89.0	--	1
1,2,3,5-Tetramethylbenzene	5740		ug/kg	89.0	--	1
N-Pentylbenzene	714		ug/kg	89.0	--	1
1,2,3,4-Tetramethylbenzene	3840		ug/kg	89.0	--	1
1,3-Dimethyl-5-tert-Butylbenzene	ND		ug/kg	89.0	--	1
Dodecane (C12)	746		ug/kg	89.0	--	1
1,3,5-Triethylbenzene	ND		ug/kg	89.0	--	1
Naphthalene	7110		ug/kg	89.0	--	1
Benzothiophene	ND		ug/kg	89.0	--	1
1,2,4-Triethylbenzene	ND		ug/kg	89.0	--	1
Hexylbenzene	ND		ug/kg	89.0	--	1
MMT	ND		ug/kg	223	--	1
Tridecane	ND		ug/kg	223	--	1
2-Methylnaphthalene	1110		ug/kg	223	--	1
1-Methylnaphthalene	620		ug/kg	223	--	1
Tetradecane (C14)	ND		ug/kg	223	--	1
Pentadecane	ND		ug/kg	223	--	1

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-04	Date Collected:	11/14/12 16:00
Client ID:	LIF-12-8'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Dibromofluoromethane	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	112		70-130

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-04	D	Date Collected:	11/14/12 16:00
Client ID:	LIF-12-8'		Date Received:	11/16/12
Sample Location:	Not Specified		Field Prep:	Not Specified
Matrix:	Soil			
Analytical Method:	1,8260B			
Analytical Date:	12/13/12 21:06			
Analyst:	MR			
Percent Solids:	83%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab						
Nonane (C9)	16500		ug/kg	890	--	10
n-Propylbenzene	12000		ug/kg	890	--	10
1-Methyl-3-Ethylbenzene	27000		ug/kg	890	--	10
1-Methyl-4-Ethylbenzene	12300		ug/kg	890	--	10
1,3,5-Trimethylbenzene	18500		ug/kg	890	--	10
1-Methyl-2-Ethylbenzene	14000		ug/kg	890	--	10
Decane (C10)	25300		ug/kg	890	--	10
1,2,4-Trimethylbenzene	52200		ug/kg	890	--	10
1,2,3-Trimethylbenzene	23700		ug/kg	890	--	10
1-Methyl-3-N-Propylbenzene	10500		ug/kg	890	--	10
1,2-Dimethyl-4-Ethylbenzene	7780		ug/kg	890	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Dibromofluoromethane	102		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/13/12 16:15
Analyst: MR

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab for sample(s): 01-04 Batch: WG579365-4					
3-Methyl-1-butene	ND		ug/kg	100	--
Isopentane	ND		ug/kg	100	--
1-Pentene	ND		ug/kg	100	--
2-Methyl-1-Butene	ND		ug/kg	100	--
Pentane	ND		ug/kg	100	--
trans-2-Pentene	ND		ug/kg	100	--
Isoprene	ND		ug/kg	100	--
cis-2-Pentene	ND		ug/kg	100	--
Tertiary Butanol	ND		ug/kg	1000	--
2,2-Dimethylbutane	ND		ug/kg	100	--
4-Methyl-1-pentene	ND		ug/kg	100	--
Cyclopentane	ND		ug/kg	100	--
2,3-Dimethylbutane	ND		ug/kg	100	--
2-Methylpentane	ND		ug/kg	100	--
Methyl tert butyl ether	ND		ug/kg	100	--
3-Methylpentane	ND		ug/kg	100	--
1-Hexene	ND		ug/kg	100	--
n-Hexane	ND		ug/kg	100	--
Isopropyl Ether	ND		ug/kg	100	--
trans-2-Hexene	ND		ug/kg	100	--
2-Methyl-2-pentene	ND		ug/kg	100	--
cis-2-Hexene	ND		ug/kg	100	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	--
2,2-Dimethylpentane	ND		ug/kg	100	--
Methylcyclopentane	ND		ug/kg	100	--
2,4-Dimethylpentane	ND		ug/kg	100	--
2,2,3-Trimethylbutane	ND		ug/kg	100	--
1,2-Dichloroethane	ND		ug/kg	100	--
3,3-Dimethylpentane	ND		ug/kg	100	--
Cyclohexane	ND		ug/kg	100	--

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/13/12 16:15
Analyst: MR

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab for sample(s): 01-04 Batch: WG579365-4					
2-Methylhexane	ND		ug/kg	100	--
Benzene	ND		ug/kg	100	--
2,3-Dimethylpentane	ND		ug/kg	100	--
Thiophene	ND		ug/kg	100	--
1,1-Dimethylcyclopentane	ND		ug/kg	100	--
3-Methylhexane	ND		ug/kg	100	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	--
1,3-Dimethylcyclopentane (cis)	ND		ug/kg	100	--
3-Ethylpentane	ND		ug/kg	100	--
1,3-DMCP (trans)/2-Methyl-1-hexene	ND		ug/kg	200	--
1-Heptene/1,2-DMCP (trans)	ND		ug/kg	200	--
Isooctane	ND		ug/kg	100	--
trans-3-Heptene	ND		ug/kg	100	--
Heptane	ND		ug/kg	100	--
cis-3-Heptene	ND		ug/kg	100	--
trans-2-Heptene	ND		ug/kg	100	--
cis-2-Heptene	ND		ug/kg	100	--
2,2-Dimethylhexane	ND		ug/kg	100	--
Methylcyclohexane	ND		ug/kg	100	--
2,5-Dimethylhexane	ND		ug/kg	100	--
2,4-Dimethylhexane	ND		ug/kg	100	--
Ethylcyclopentane	ND		ug/kg	100	--
2,2,3-Trimethylpentane	ND		ug/kg	100	--
1,2,3-Trimethylcyclopentane (ctc)	ND		ug/kg	100	--
2,3,4-Trimethylpentane	ND		ug/kg	100	--
2,3,3-Trimethylpentane	ND		ug/kg	100	--
2,3-Dimethylhexane	ND		ug/kg	100	--
2-Methylheptane	ND		ug/kg	100	--
4-Methylheptane	ND		ug/kg	100	--
3-Methylheptane	ND		ug/kg	100	--

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/13/12 16:15
Analyst: MR

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab for sample(s): 01-04 Batch: WG579365-4					
3-Ethylhexane	ND		ug/kg	100	--
Toluene	ND		ug/kg	100	--
2-Methylthiophene	ND		ug/kg	100	--
1,4-Dimethylcyclohexane (trans)	ND		ug/kg	100	--
3-Methylthiophene	ND		ug/kg	100	--
1-Octene	ND		ug/kg	100	--
Octane	ND		ug/kg	100	--
1,2-Dimethylcyclohexane (trans)	ND		ug/kg	100	--
1,2-Dibromoethane	ND		ug/kg	100	--
1,2,3-TMCP (ccc)/2-Octene (trans)	ND		ug/kg	200	--
cis-2-Octene	ND		ug/kg	100	--
Isopropylcyclopentane	ND		ug/kg	100	--
1,2-Dimethylcyclohexane (cis)	ND		ug/kg	100	--
2,5-Dimethylheptane	ND		ug/kg	100	--
3,5-Dimethylheptane	ND		ug/kg	100	--
3,3-Dimethylheptane	ND		ug/kg	100	--
1,1,4-Trimethylcyclohexane	ND		ug/kg	100	--
2,3-Dimethylheptane	ND		ug/kg	100	--
3,4-Dimethylheptane	ND		ug/kg	100	--
4-Methyloctane	ND		ug/kg	100	--
2-Methyloctane	ND		ug/kg	100	--
Ethylbenzene	ND		ug/kg	100	--
2-Ethylthiophene	ND		ug/kg	100	--
3-Methyloctane	ND		ug/kg	100	--
3,3-Diethylpentane	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	200	--
1-Nonene	ND		ug/kg	250	--
trans-3-Nonene	ND		ug/kg	100	--
cis-3-Nonene	ND		ug/kg	100	--
Nonane (C9)	ND		ug/kg	100	--

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/13/12 16:15
Analyst: MR

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab for sample(s): 01-04 Batch: WG579365-4					
Styrene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	100	--
2-Nonene	ND		ug/kg	100	--
Isopropylcyclohexane	ND		ug/kg	100	--
Isopropylbenzene	ND		ug/kg	100	--
3,3-Dimethyloctane	ND		ug/kg	100	--
n-Propylbenzene	ND		ug/kg	100	--
2-Methylnonane	ND		ug/kg	100	--
3-Methylnonane	ND		ug/kg	100	--
1-Methyl-3-Ethylbenzene	ND		ug/kg	100	--
1-Methyl-4-Ethylbenzene	ND		ug/kg	100	--
1,3,5-Trimethylbenzene	ND		ug/kg	100	--
1-Decene	ND		ug/kg	100	--
Isobutylcyclohexane	ND		ug/kg	100	--
1-Methyl-2-Ethylbenzene	ND		ug/kg	100	--
Decane (C10)	ND		ug/kg	100	--
tert-Butylbenzene	ND		ug/kg	100	--
1,2,4-Trimethylbenzene	ND		ug/kg	100	--
Isobutylbenzene	ND		ug/kg	100	--
sec-Butylbenzene	ND		ug/kg	100	--
1-Methyl-3-Isopropylbenzene	ND		ug/kg	100	--
1-Methyl-4-Isopropylbenzene	ND		ug/kg	100	--
1,2,3-Trimethylbenzene	ND		ug/kg	100	--
1-Methyl-2-Isopropylbenzene	ND		ug/kg	100	--
Indane	ND		ug/kg	100	--
1,3-Diethylbenzene	ND		ug/kg	100	--
1-Methyl-3-N-Propylbenzene	ND		ug/kg	100	--
Indene	ND		ug/kg	100	--
1-Methyl-4-N-Propylbenzene	ND		ug/kg	100	--
n-Butylbenzene	ND		ug/kg	100	--

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/13/12 16:15
Analyst: MR

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab for sample(s): 01-04 Batch: WG579365-4					
1,2-Dimethyl-4-Ethylbenzene	ND		ug/kg	100	--
1,2-Diethylbenzene	ND		ug/kg	100	--
1-Methyl-2-N-Propylbenzene	ND		ug/kg	100	--
1,4-Dimethyl-2-Ethylbenzene	ND		ug/kg	100	--
Undecane	ND		ug/kg	100	--
1,3-Dimethyl-4-Ethylbenzene	ND		ug/kg	100	--
1,3-Dimethyl-5-Ethylbenzene	ND		ug/kg	100	--
1,3-Dimethyl-2-Ethylbenzene	ND		ug/kg	100	--
1,2-Dimethyl-3-Ethylbenzene	ND		ug/kg	100	--
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	--
1,2,3,5-Tetramethylbenzene	ND		ug/kg	100	--
N-Pentylbenzene	ND		ug/kg	100	--
1,2,3,4-Tetramethylbenzene	ND		ug/kg	100	--
1,3-Dimethyl-5-tert-Butylbenzene	ND		ug/kg	100	--
Dodecane (C12)	ND		ug/kg	100	--
1,3,5-Triethylbenzene	ND		ug/kg	100	--
Naphthalene	ND		ug/kg	100	--
Benzothiophene	ND		ug/kg	100	--
1,2,4-Triethylbenzene	ND		ug/kg	100	--
Hexylbenzene	ND		ug/kg	100	--
MMT	ND		ug/kg	250	--
Tridecane	ND		ug/kg	250	--
2-Methylnaphthalene	ND		ug/kg	250	--
1-Methylnaphthalene	ND		ug/kg	250	--
Tetradecane (C14)	ND		ug/kg	250	--
Pentadecane	ND		ug/kg	250	--

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/13/12 16:15
Analyst: MR

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab for sample(s): 01-04 Batch: WG579365-4					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Dibromofluoromethane	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: JEFFERSON, IOWA
Project Number: 103-87305

Lab Number: L1222419
Report Date: 12/28/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab Associated sample(s): 01-04 Batch: WG579365-5 WG579365-6								
1-Pentene	103		102		50-130	1		30
Pentane	105		104		50-130	1		30
Tertiary Butanol	101		97		50-130	4		30
Cyclopentane	100		101		50-130	1		30
2-Methylpentane	97		96		50-130	1		30
Methyl tert butyl ether	106		104		50-130	2		30
3-Methylpentane	100		100		50-130	0		30
1-Hexene	95		95		50-130	0		30
n-Hexane	95		95		50-130	0		30
Isopropyl Ether	99		98		50-130	1		30
Ethyl-Tert-Butyl-Ether	97		97		50-130	0		30
Methylcyclopentane	97		95		50-130	2		30
2,4-Dimethylpentane	96		97		50-130	1		30
Cyclohexane	96		96		50-130	0		30
2-Methylhexane	98		98		50-130	0		30
Benzene	103		104		50-130	1		30
2,3-Dimethylpentane	96		98		50-130	2		30
3-Methylhexane	89		89		50-130	0		30
Tertiary-Amyl Methyl Ether	95		96		50-130	1		30
Isooctane	93		93		50-130	0		30
Heptane	96		97		50-130	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: JEFFERSON, IOWA
Project Number: 103-87305

Lab Number: L1222419
Report Date: 12/28/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab Associated sample(s): 01-04 Batch: WG579365-5 WG579365-6								
Methylcyclohexane	103		104		50-130	1		30
2-Methylheptane	91		89		50-130	2		30
3-Methylheptane	93		96		50-130	3		30
Toluene	103		102		50-130	1		30
Octane	96		96		50-130	0		30
Ethylbenzene	97		98		50-130	1		30
p/m-Xylene	101		101		50-130	0		30
Nonane (C9)	84		85		50-130	1		30
o-Xylene	100		100		50-130	0		30
Isopropylbenzene	96		96		50-130	0		30
n-Propylbenzene	98		99		50-130	1		30
1-Methyl-3-Ethylbenzene	95		95		50-130	0		30
1-Methyl-4-Ethylbenzene	96		96		50-130	0		30
1,3,5-Trimethylbenzene	98		98		50-130	0		30
1-Decene	104		107		50-130	3		30
1-Methyl-2-Ethylbenzene	97		96		50-130	1		30
Decane (C10)	100		100		50-130	0		30
1,2,4-Trimethylbenzene	95		95		50-130	0		30
sec-Butylbenzene	93		94		50-130	1		30
1-Methyl-4-N-Propylbenzene	93		95		50-130	2		30
n-Butylbenzene	98		100		50-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: JEFFERSON, IOWA

Project Number: 103-87305

Lab Number: L1222419

Report Date: 12/28/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PIANO Volatile Organics by EPA 5035 High - Mansfield Lab Associated sample(s): 01-04 Batch: WG579365-5 WG579365-6								
1,2-Diethylbenzene	86		89		50-130	3		30
Undecane	91		93		50-130	2		30
N-Pentylbenzene	95		95		50-130	0		30
Dodecane (C12)	105		106		50-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Dibromofluoromethane	102		104		70-130
Toluene-d8	103		102		70-130
4-Bromofluorobenzene	101		101		70-130

PETROLEUM HYDROCARBONS

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-01	Date Collected:	11/14/12 17:25
Client ID:	LIF-1-4.5'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	ALPHA OP-013
Analytical Method:	1,8015D(M)	Extraction Date:	12/12/12 17:48
Analytical Date:	12/15/12 03:43	Cleanup Method1:	EPA 3611B
Analyst:	DP	Cleanup Date1:	12/13/12
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab						
Total Petroleum Hydrocarbons (C9-C44)	22300		mg/kg	102	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	71		50-130
d50-Tetracosane	111		50-130

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-02	Date Collected:	11/14/12 17:07
Client ID:	LIF-3-10.5'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	ALPHA OP-013
Analytical Method:	1,8015D(M)	Extraction Date:	12/12/12 17:48
Analytical Date:	12/15/12 05:08	Cleanup Method1:	EPA 3611B
Analyst:	DP	Cleanup Date1:	12/13/12
Percent Solids:	87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab						
Total Petroleum Hydrocarbons (C9-C44)	456		mg/kg	6.24	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	86		50-130
d50-Tetracosane	86		50-130

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-03	Date Collected:	11/14/12 16:22
Client ID:	LIF-8-7.5'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	ALPHA OP-013
Analytical Method:	1,8015D(M)	Extraction Date:	12/12/12 17:48
Analytical Date:	12/15/12 06:34	Cleanup Method1:	EPA 3611B
Analyst:	DP	Cleanup Date1:	12/13/12
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab						
Total Petroleum Hydrocarbons (C9-C44)	18700		mg/kg	98.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	101		50-130
d50-Tetracosane	110		50-130

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419

Project Number: 103-87305 **Report Date:** 12/28/12

SAMPLE RESULTS

Lab ID:	L1222419-04	Date Collected:	11/14/12 16:00
Client ID:	LIF-12-8'	Date Received:	11/16/12
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	ALPHA OP-013
Analytical Method:	1,8015D(M)	Extraction Date:	12/12/12 17:48
Analytical Date:	12/15/12 07:59	Cleanup Method1:	EPA 3611B
Analyst:	DP	Cleanup Date1:	12/13/12
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab						
Total Petroleum Hydrocarbons (C9-C44)	30700		mg/kg	156	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	93		50-130
d50-Tetracosane	124		50-130

Project Name: JEFFERSON, IOWA
Project Number: 103-87305

Lab Number: L1222419
Report Date: 12/28/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 12/14/12 22:00
Analyst: DP

Extraction Method: ALPHA OP-013
Extraction Date: 12/12/12 17:48
Cleanup Method1: EPA 3611B
Cleanup Date1: 12/13/12

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab for sample(s): 01-04 Batch: WG579082-1					
Total Petroleum Hydrocarbons (C9-C44)	ND		mg/kg	2.20	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	87		50-130
d50-Tetracosane	86		50-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: JEFFERSON, IOWA
Project Number: 103-87305
Lab Number: L1222419
Report Date: 12/28/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab Associated sample(s): 01-04 Batch: WG579082-2 WG579082-3								
Nonane (C9)	76		75		50-130	1		30
Decane (C10)	79		80		50-130	1		30
Dodecane (C12)	80		81		50-130	1		30
Tetradecane (C14)	82		84		50-130	2		30
Hexadecane (C16)	87		89		50-130	2		30
Octadecane (C18)	93		95		50-130	2		30
Nonadecane (C19)	87		88		50-130	1		30
Eicosane (C20)	90		91		50-130	1		30
Docosane (C22)	90		91		50-130	1		30
Tetracosane (C24)	92		93		50-130	1		30
Hexacosane (C26)	91		92		50-130	1		30
Octacosane (C28)	94		93		50-130	1		30
Triacontane (C30)	87		86		50-130	1		30
Hexatriacontane (C36)	85		87		50-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	88		89		50-130
d50-Tetracosane	88		88		50-130

INORGANICS
&
MISCELLANEOUS

Project Name: JEFFERSON, IOWA
Project Number: 103-87305

Lab Number: L1222419
Report Date: 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-01
Client ID: LIF-1-4.5'
Sample Location: Not Specified
Matrix: Soil

Date Collected: 11/14/12 17:25
Date Received: 11/16/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	86.1		%	0.100	--	1	-	12/12/12 11:30	30,2540G	KB

Project Name: JEFFERSON, IOWA
Project Number: 103-87305

Lab Number: L1222419
Report Date: 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-02
Client ID: LIF-3-10.5'
Sample Location: Not Specified
Matrix: Soil

Date Collected: 11/14/12 17:07
Date Received: 11/16/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	87.1		%	0.100	--	1	-	12/12/12 11:30	30,2540G	KB

Project Name: JEFFERSON, IOWA
Project Number: 103-87305

Lab Number: L1222419
Report Date: 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-03
Client ID: LIF-8-7.5'
Sample Location: Not Specified
Matrix: Soil

Date Collected: 11/14/12 16:22
Date Received: 11/16/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	83.6		%	0.100	--	1	-	12/12/12 11:30	30,2540G	KB

Project Name: JEFFERSON, IOWA
Project Number: 103-87305

Lab Number: L1222419
Report Date: 12/28/12

SAMPLE RESULTS

Lab ID: L1222419-04
Client ID: LIF-12-8'
Sample Location: Not Specified
Matrix: Soil

Date Collected: 11/14/12 16:00
Date Received: 11/16/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	83.1		%	0.100	--	1	-	12/12/12 11:30	30,2540G	KB

Lab Duplicate Analysis
Batch Quality Control

Project Name: JEFFERSON, IOWA
Project Number: 103-87305

Lab Number: L1222419
Report Date: 12/28/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG578976-1 QC Sample: L1222419-01 Client ID: LIF-1-4.5'						
Solids, Total	86.1	86.0	%	0		10

Project Name: JEFFERSON, IOWA
Project Number: 103-87305

Lab Number: L1222419
Report Date: 12/28/12

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 11/16/2012 18:00

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1222419-01A	Vial MeOH preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-01B	Vial water preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-01C	Vial water preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-01D	Amber 120ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PHI(14)
L1222419-02A	Vial MeOH preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-02B	Vial water preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-02C	Vial water preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-02D	Amber 120ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PHI(14)
L1222419-03A	Vial MeOH preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-03B	Vial water preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-03C	Vial water preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-03D	Amber 120ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PHI(14)
L1222419-04A	Vial MeOH preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-04B	Vial water preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-04C	Vial water preserved	A	N/A	2.9	Y	Absent	A2-PIANO8260H(14)
L1222419-04D	Amber 120ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PHI(14)

*Values in parentheses indicate holding time in days

Project Name:	JEFFERSON, IOWA	**Lab Number:**	L1222419
Project Number:	103-87305	**Report Date:**	12/28/12

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report

Project Name:	JEFFERSON, IOWA	**Lab Number:**	L1222419
Project Number:	103-87305	**Report Date:**	12/28/12

Data Qualifiers

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: JEFFERSON, IOWA **Lab Number:** L1222419
Project Number: 103-87305 **Report Date:** 12/28/12

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1222419

Client Information

Client: Golder Associates
Address: 670 N. Commercial St. Suite 103
Phone: 603 668-0880
Fax: 603 668-1199
Email: jpeace@golder.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Jefferson, Iowa
Project Location:
Project #: 103-87305
Project Manager: James Peace
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☑ EMAIL
☑ ADEx ☐ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

Other Project Specific Requirements/Comments/Detection Limits:

PLEASE NOTE
MS/MSD (at unit cost) will be omitted unless you check here: ☐

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PIANO VOC Low Level	PIANO VOC High Level	TPH-PHC										Sample Specific Comments	TOTAL # BOTTLES
L1222419-01	LIF-1-4.5'	11/14/12	17:25	Soil	JSP	2	1	1										PIANO Low Level	4
02	LIF-3-10.5'	11/14/12	17:07	Soil	JSP	2	1	1										Preserved w/ 5mL DI	4
03	LIF-8-7.5'	11/14/12	16:22	Soil	JSP	2	1	1										WATER	4
04	LIF-12-8'	11/14/12	16:00	Soil	JSP	2	1	1										All Samples Petroleum-	4
																		Saturated	
Container Type						V	V	A											
Preservative						O	F	A											

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

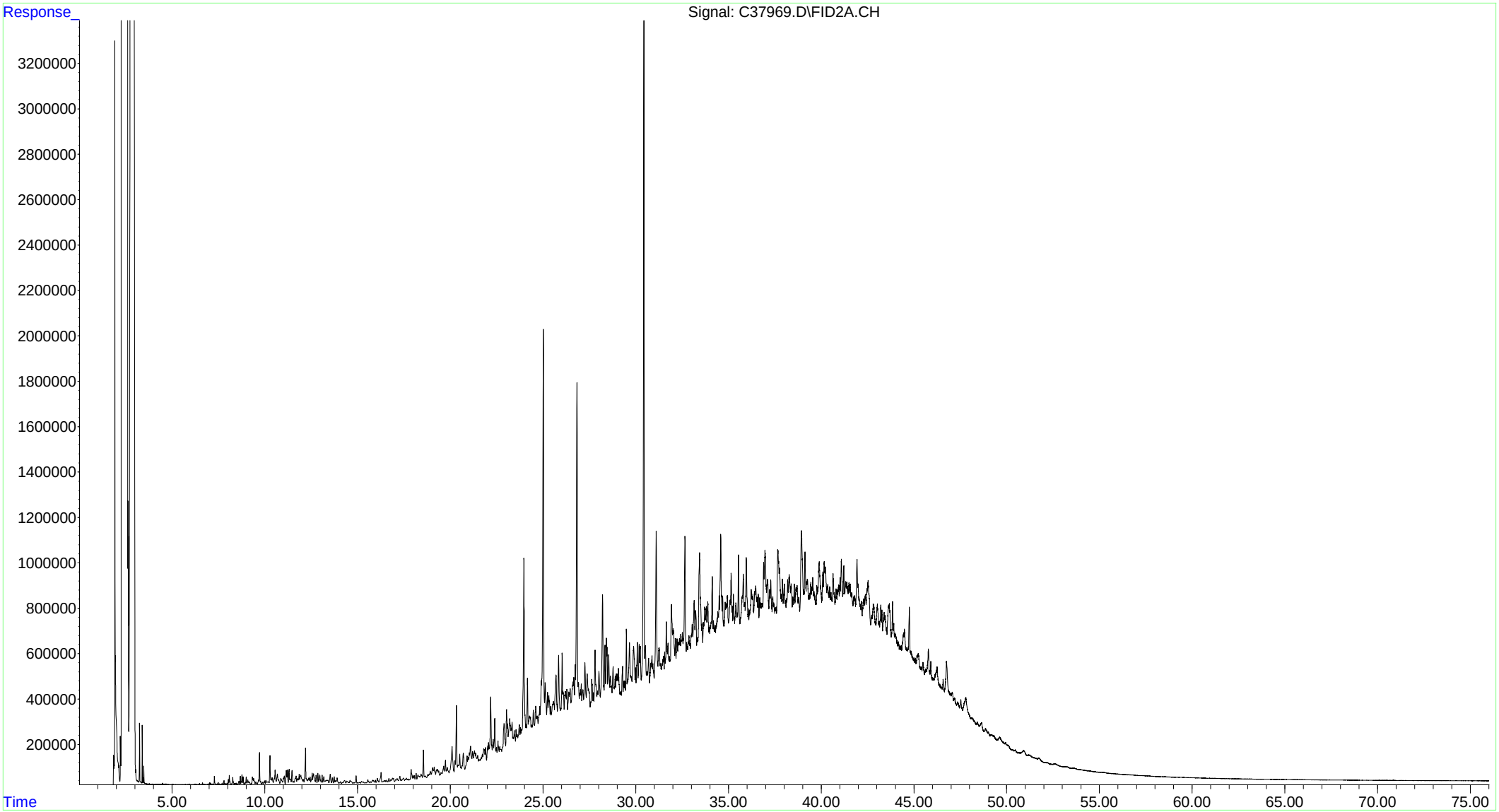
Relinquished By:	Date/Time	Received By:	Date/Time
James S Peace	11/15/12 16:05	FedEx	
FedEx	11/16/12 0955		11/16/12 0955

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 101-09 (rev. 27-SEP-10)

GC-FID Chromatogram

```
File       :O:\Forensics\Data\PAH3\2012\DEC12\DEC14.SEC\C37969.D
Operator   : PAH3:DP
Acquired   : 15 Dec 2012   3:43 am using AcqMethod FRNC3A.M
Instrument :   PAH 3
Sample     : L1222419-01,42
Misc Info  : WG581525,WG579082
ALS Vial   : 61
```



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File       :O:\Forensics\Data\PAH3\2012\DEC12\DEC14.SEC\C37971.D
Operator   : PAH3:DP
Acquired   : 15 Dec 2012   5:08 am using AcqMethod FRNC3A.M
Instrument :   PAH 3
Sample     : L1222419-02,42
Misc Info  : WG581525,WG579082
ALS Vial   : 62
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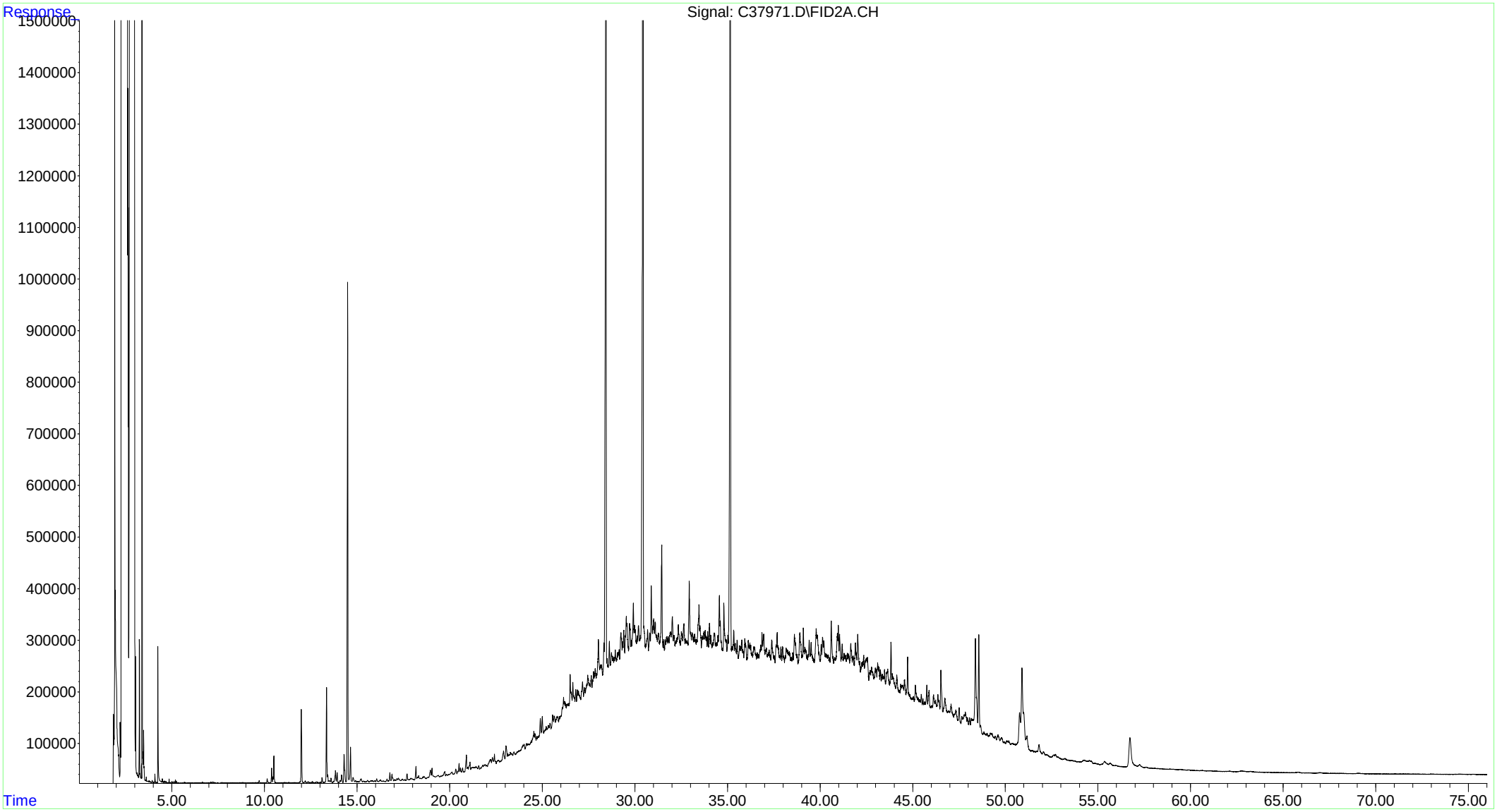

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File       :O:\Forensics\Data\PAH3\2012\DEC12\DEC14.SEC\C37973.D
Operator   : PAH3:DP
Acquired   : 15 Dec 2012   6:34 am using AcqMethod FRNC3A.M
Instrument :   PAH 3
Sample     : L1222419-03,42
Misc Info  : WG581525,WG579082
ALS Vial   : 63
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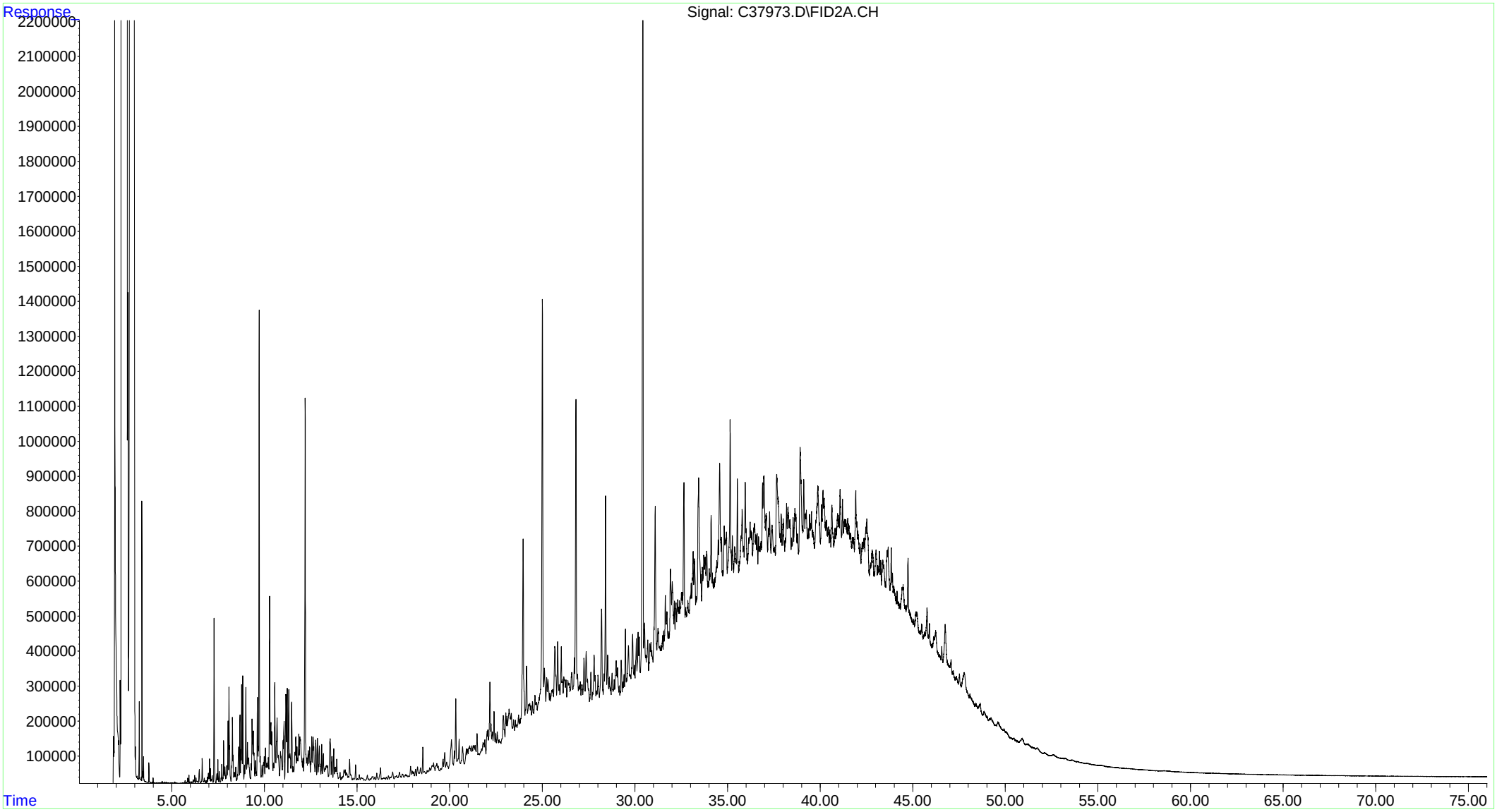

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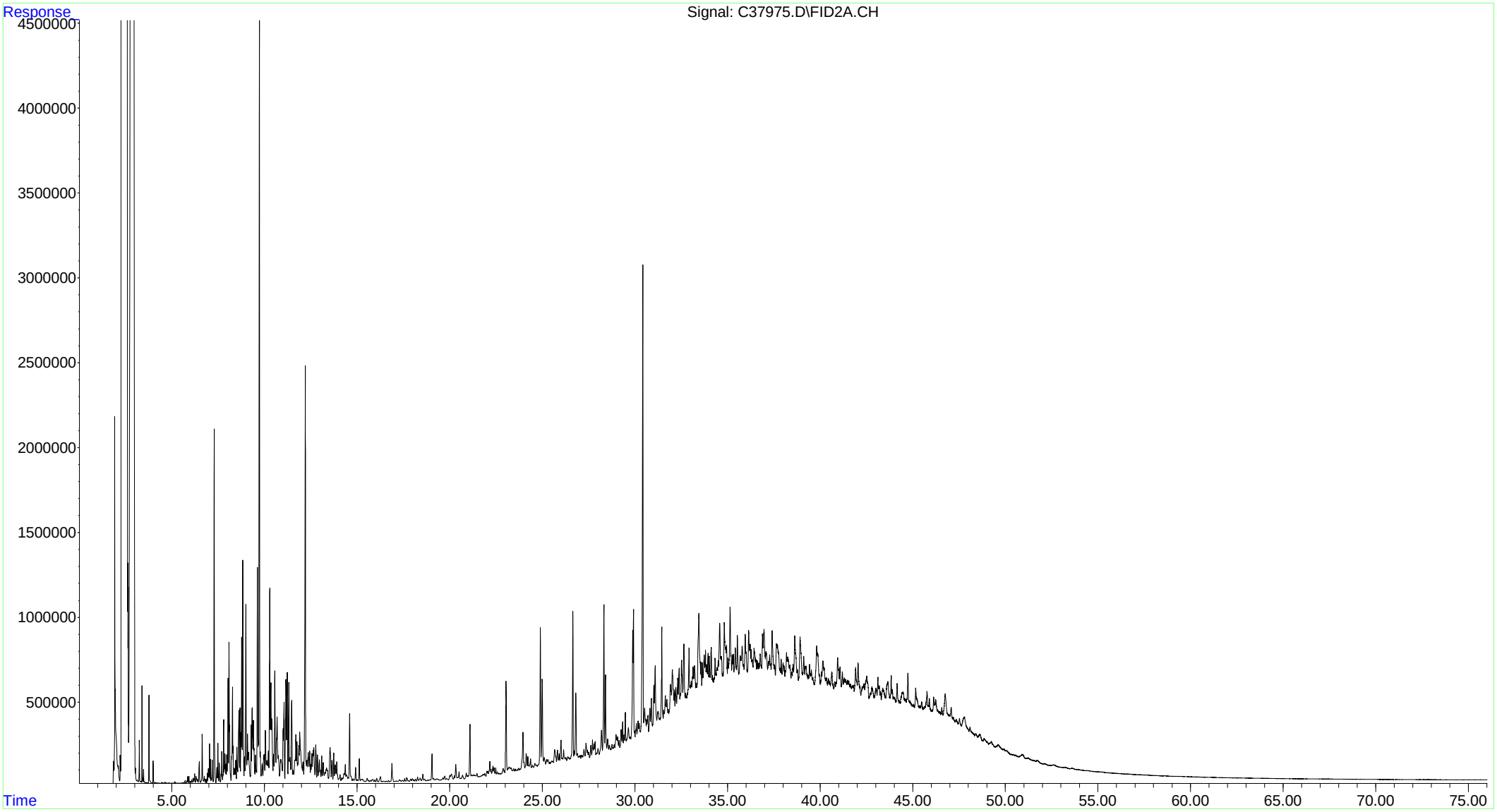
File       :O:\Forensics\Data\PAH3\2012\DEC12\DEC14.SEC\C37975.D
Operator   : PAH3:DP
Acquired   : 15 Dec 2012   7:59 am using AcqMethod FRNC3A.M
Instrument :   PAH 3
Sample     : L1222419-04,42
Misc Info  : WG581525,WG579082
ALS Vial   : 64
```



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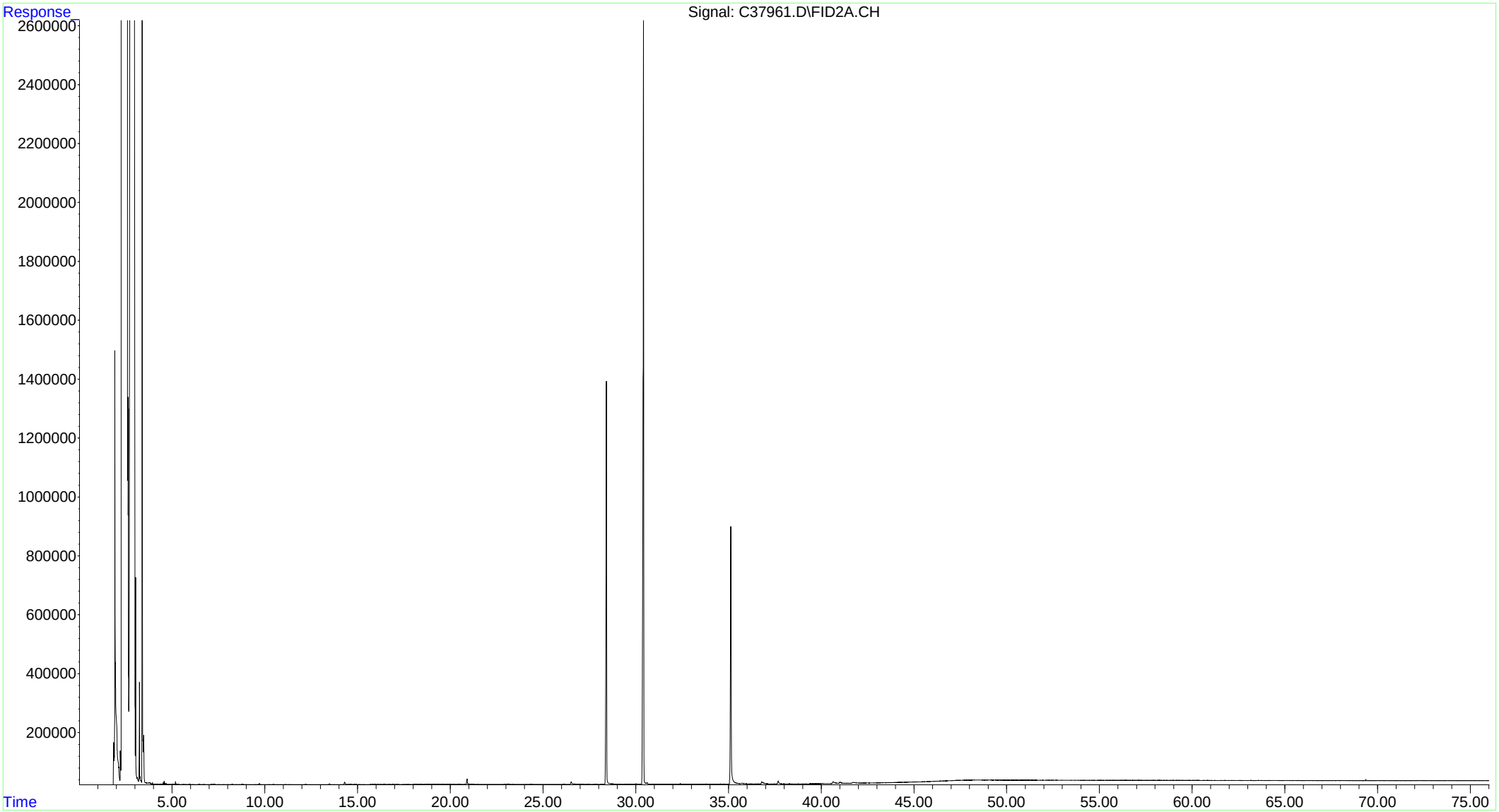
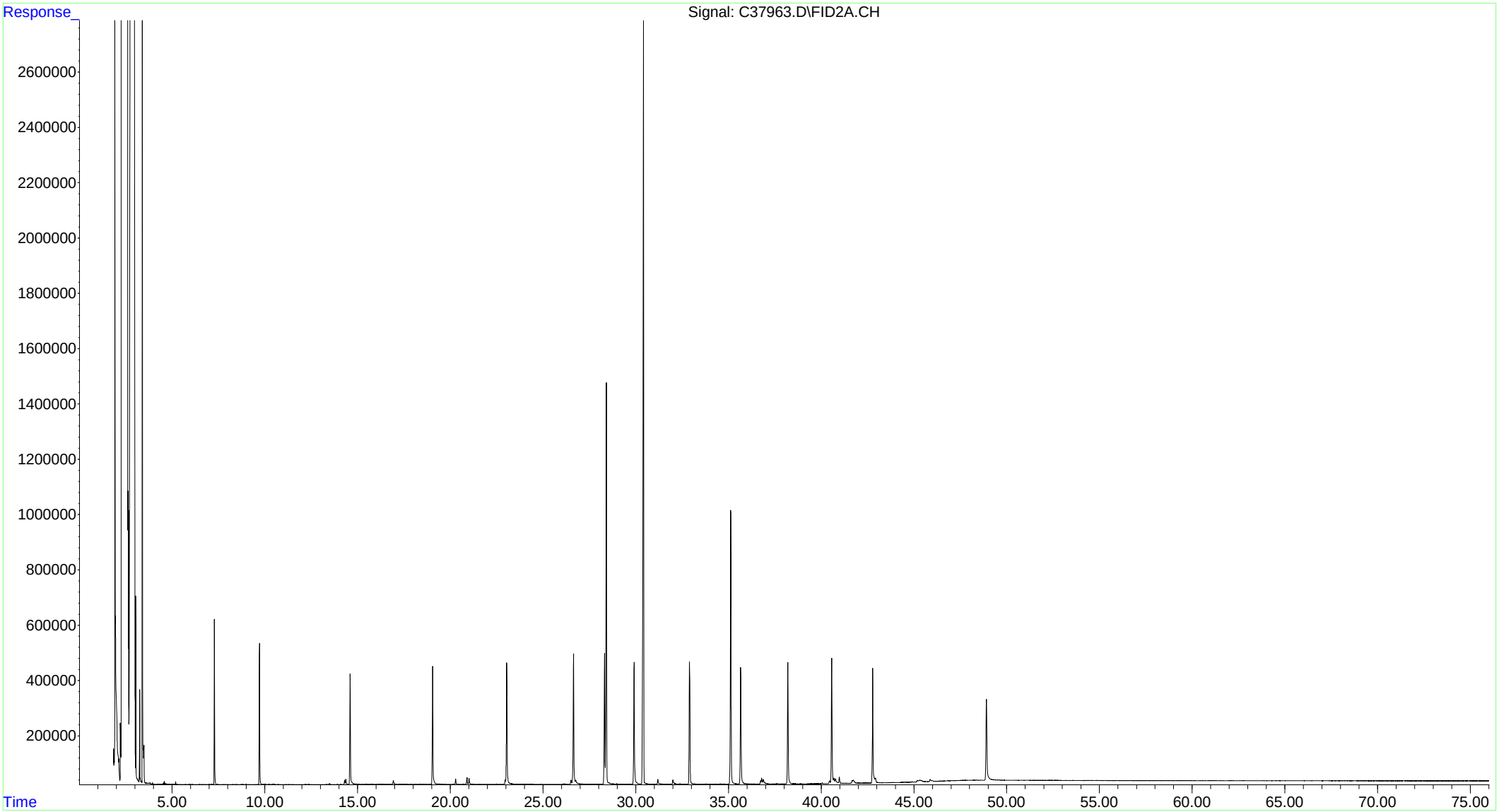
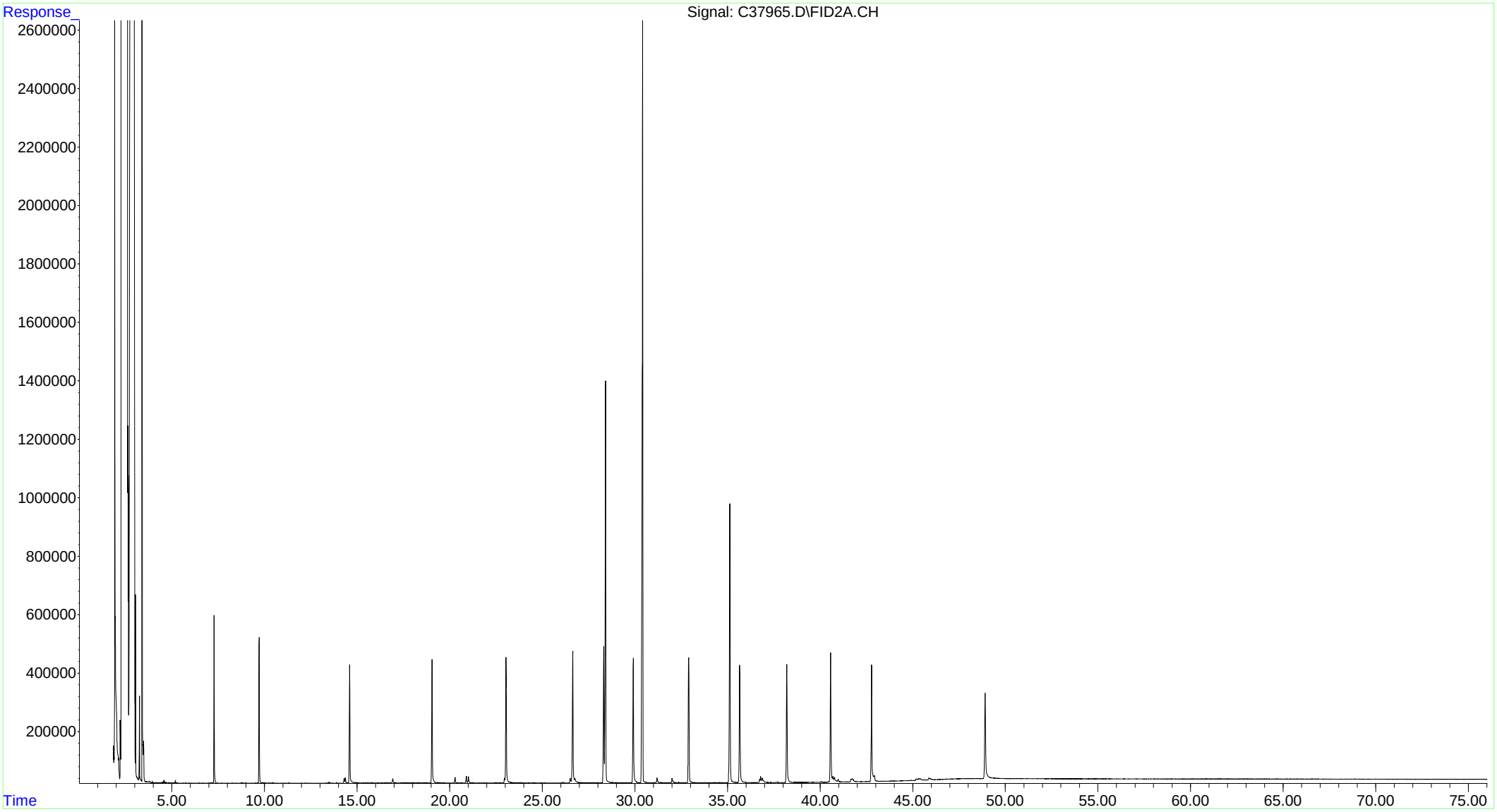
File       :O:\Forensics\Data\PAH3\2012\DEC12\DEC14.SEC\C37961.D
Operator   : PAH3:DP
Acquired   : 14 Dec 2012  10:00 pm using AcqMethod FRNC3A.M
Instrument :   PAH 3
Sample     : WG579082-1,42
Misc Info  : WG581525,WG579082
ALS Vial   : 57
```



```
File       :O:\Forensics\Data\PAH3\2012\DEC12\DEC14.SEC\C37963.D
Operator   : PAH3:DP
Acquired   : 14 Dec 2012  11:26 pm using AcqMethod FRNC3A.M
Instrument :   PAH 3
Sample     : WG579082-2,42
Misc Info  : WG581525,WG579082
ALS Vial   : 58
```



```
File       :O:\Forensics\Data\PAH3\2012\DEC12\DEC14.SEC\C37965.D
Operator   : PAH3:DP
Acquired   : 15 Dec 2012  12:52 am using AcqMethod FRNC3A.M
Instrument :   PAH 3
Sample     : WG579082-3,42
Misc Info  : WG581525,WG579082
ALS Vial   : 59
```



Petroleum Reference Standards

Data Path : O:\Forensics\Data\PAH3\2012\DEC12\DEC14.SEC\
Data File : C37977.D
Signal(s) : FID2A.CH
Acq On : 15 Dec 2012 9:25 am
Operator : PAH3:DP
Sample : WG581525-2
Misc : Alkane Reference Standard (C8 - C40)
ALS Vial : 65 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 27 10:47:36 2012
Quant Method : O:\Forensics\Data\PAH3\2012\DEC12\DEC14.SEC\HC3092012R.M
Quant Title : FID Forensics
QLast Update : Thu Dec 13 09:19:35 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

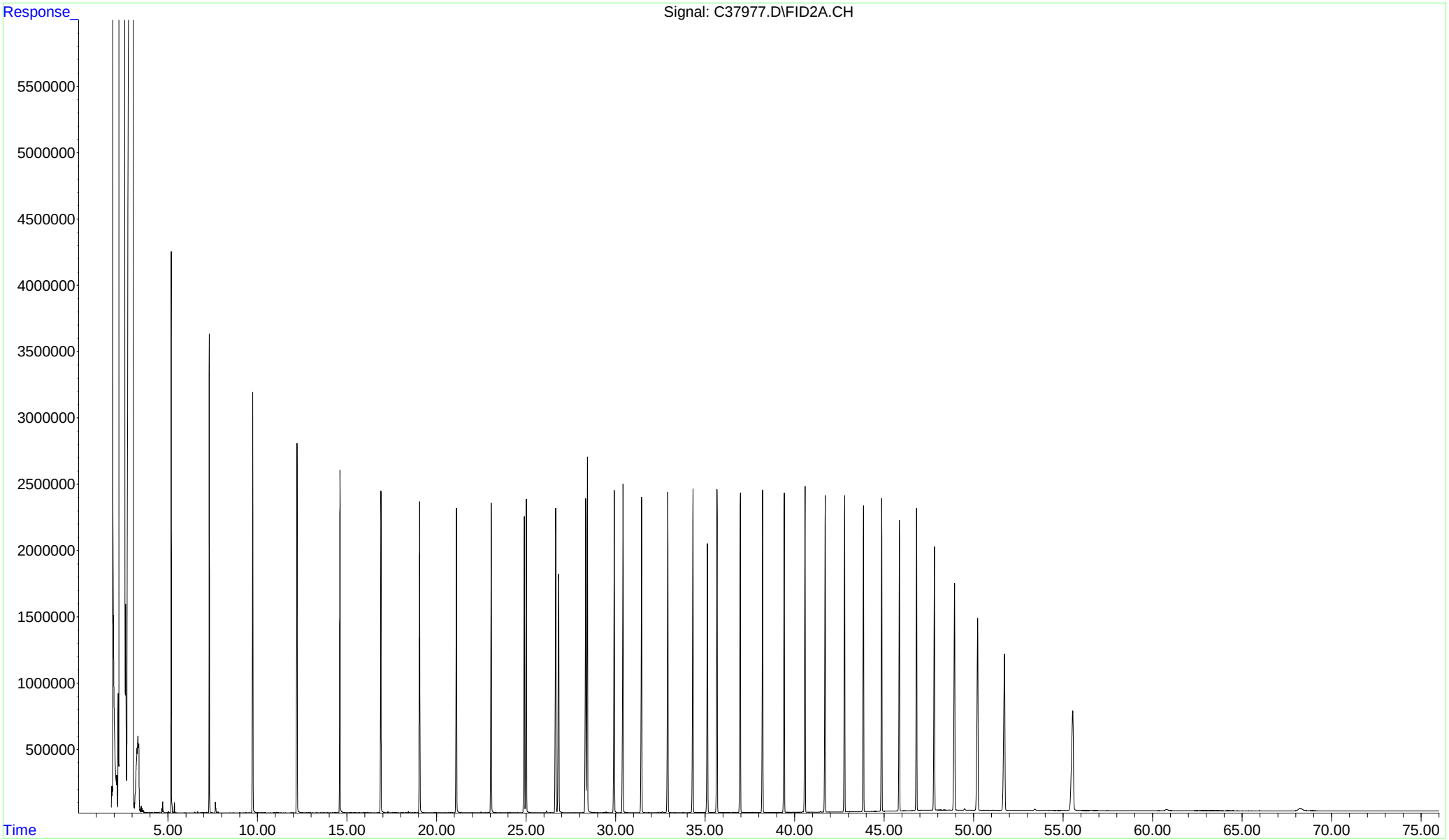
Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
	Internal Standards			
1) I	5-alpha-androstane	30.419	62351973	50.000 ug/mL M4
	System Monitoring Compounds			
19) s	ortho-terphenyl	28.429	67356488	50.617 ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 101.23%
24) s	d50-Tetracosane	35.132	56107077	51.727 ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery = 103.45%
	Target Compounds			
2) t	n-Octane (C8)	5.181	51230116	51.891 ug/mL M4
3) t	n-Nonane (C9)	7.305	53166293	51.670 ug/mL M4
4) t	n-Decane (C10)	9.730	55200582	51.283 ug/mL M4
5) t	n-Undecane (C11)	12.206	55840820	51.389 ug/mL M4
6) t	n-Dodecane (C12)	14.609	57231488	51.728 ug/mL M4
7) t	n-Tridecane (C13)	16.896	57477529	51.714 ug/mL M4
9) t	n-Tetradecane (C14)	19.061	57991171	51.702 ug/mL M4
11) t	n-Pentadecane (C15)	21.114	58002946	51.706 ug/mL M4
12) t	n-Hexadecane (C16)	23.057	58624804	51.625 ug/mL M4
14) t	n-Heptadecane (C17)	24.904	57663179	51.071 ug/mL M4
15) t	Pristane	25.016	59932432	51.977 ug/mL M4
16) t	n-Octadecane (C18)	26.660	59486096	51.528 ug/mL M4
17) t	Phytane	26.821	58913947	51.552 ug/mL M4
18) t	n-Nonadecane (C19)	28.333	59582873	51.642 ug/mL M4
20) t	n-Eicosane (C20)	29.928	59955111	51.503 ug/mL M4
21) t	n-Heneicosane (C21)	31.457	59986105	51.293 ug/mL M4
22) t	n-Docosane (C22)	32.920	60337334	51.343 ug/mL M4
23) t	n-Tricosane (C23)	34.322	60400210	50.530 ug/mL M4
25) t	n-Tetracosane (C24)	35.672	60174377	51.192 ug/mL M4
26) t	n-Pentacosane (C25)	36.971	61390877	51.105 ug/mL M4
27) t	n-Hexacosane (C26)	38.218	60980355	51.099 ug/mL M4
28) t	n-Heptacosane (C27)	39.424	59683233	50.966 ug/mL M4
29) t	n-Octacosane (C28)	40.586	60391987	50.895 ug/mL M4
30) t	n-Nonacosane (C29)	41.712	60484106	50.868 ug/mL M4
31) t	n-Triacontane (C30)	42.798	59579307	50.661 ug/mL M4
32) t	n-Hentriacontane (C31)	43.847	60155113	50.480 ug/mL M4
33) t	n-Dotriacontane (C32)	44.869	59851630	50.264 ug/mL M4
34) t	n-Tritriacontane (C33)	45.859	57148272	50.192 ug/mL M4
35) t	n-tetratriacontane (C34)	46.818	58875421	50.033 ug/mL M4
36) t	n-Pentatriacontane (C35)	47.813	59739118	49.898 ug/mL M4
37) t	n-Hexatriacontane (C36)	48.941	60712623	49.751 ug/mL M4
38) t	n-Heptatriacontane (C37)	50.230	59315366	49.618 ug/mL M4
39) t	n-Octatriacontane (C38)	51.731	58741508	49.208 ug/mL M4
41) t	n-Tetracontane (C40)	55.535	55300100	48.812 ug/mL M4
	SemiQuant Compounds - Not Calibrated on this Instrument			

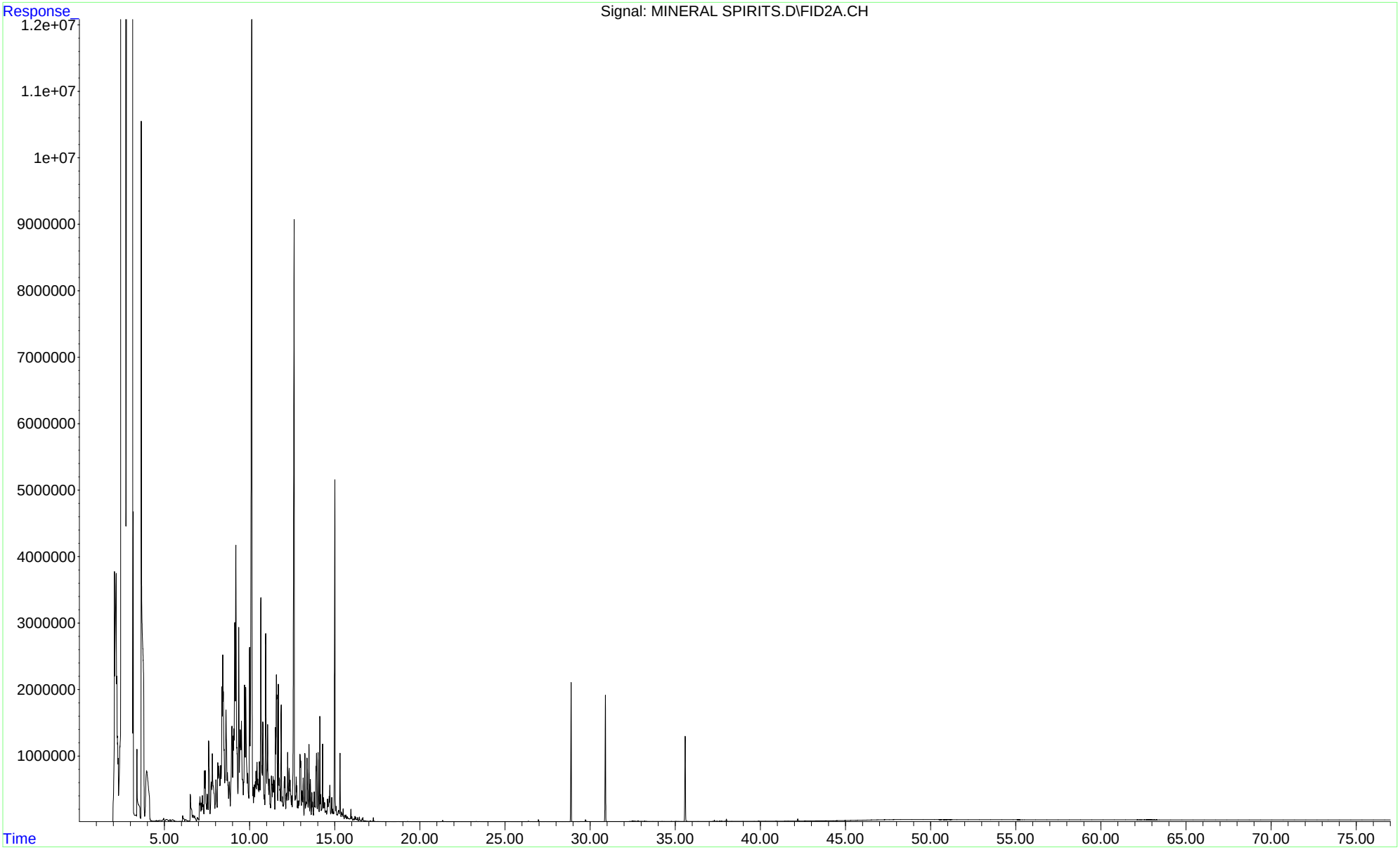
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

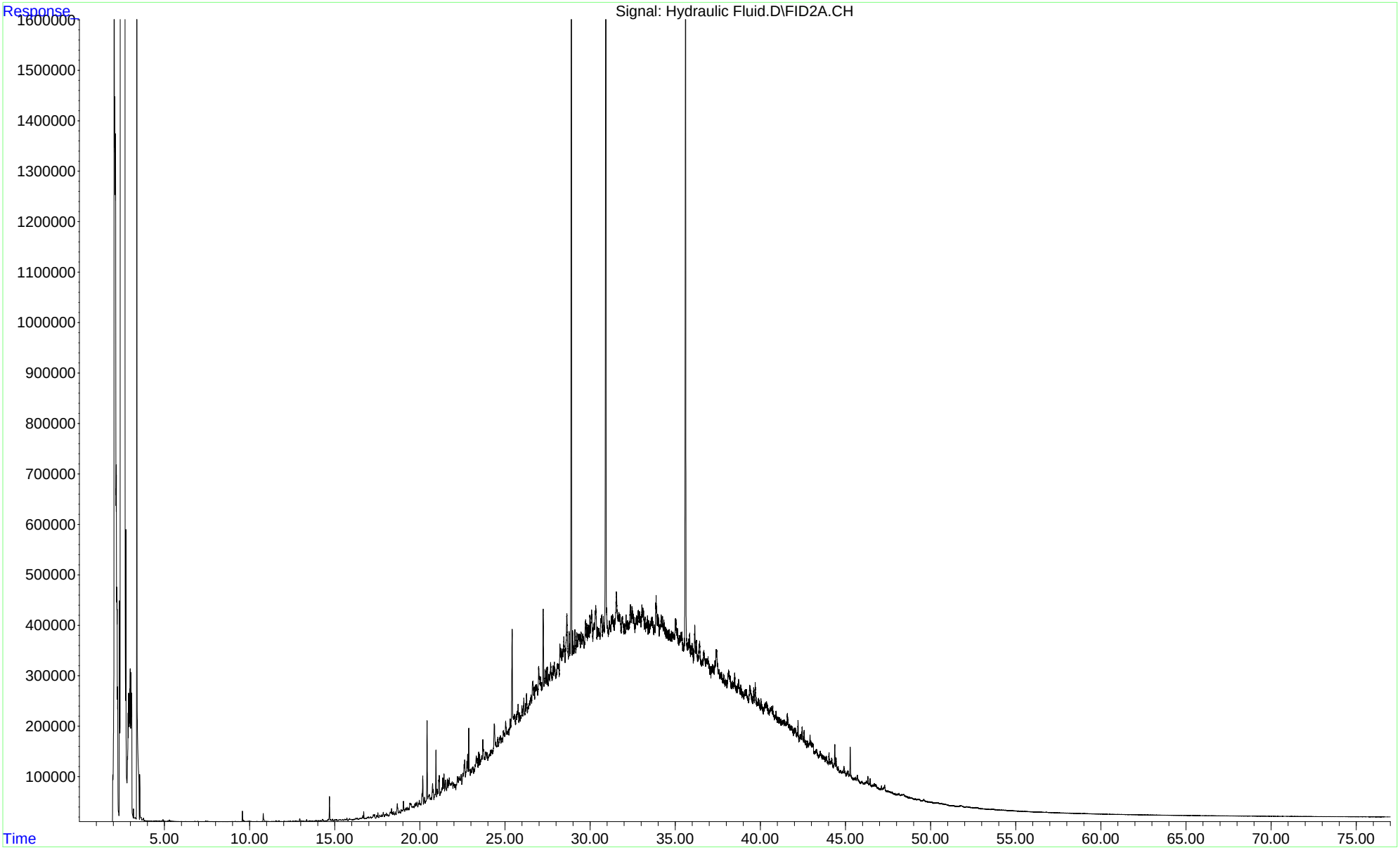
Data Path : O:\Forensics\Data\PAH3\2012\DEC12\DEC14.SEC\
Data File : C37977.D
Operator : PAH3:DP
Acquired : 15 Dec 2012 9:25 am using AcqMethod FRNC3A.M
Instrument: PAH 3
Sample : WG581525-2
Misc Info : Alkane Reference Standard (C8 - C40)
ALS Vial : 65



```
File       :O:\FORENSICS\LIBRARY\HYDROCARBON REFERENCE STANDARDS\MINERAL
...          SPIRITS.D
Operator  : PAH2:AC
Instrument :   PAH 2
Acquired  : 02 Dec 2011  12:40 pm using AcqMethod FRNC2AF.M
Sample    : MINERAL SPIRITS
Misc Info : 1X
```



```
File       :O:\FORENSICS\LIBRARY\Hydrocarbon Reference Standards\Hydraul
...         ic Fluid.D
Operator  : PAH2:AC
Instrument :   PAH 2
Acquired  : 21 Nov 2011   4:03 am using AcqMethod FRNC2AF.M
Sample    : HYDRAULIC FLUID
Misc Info : F042710T
```



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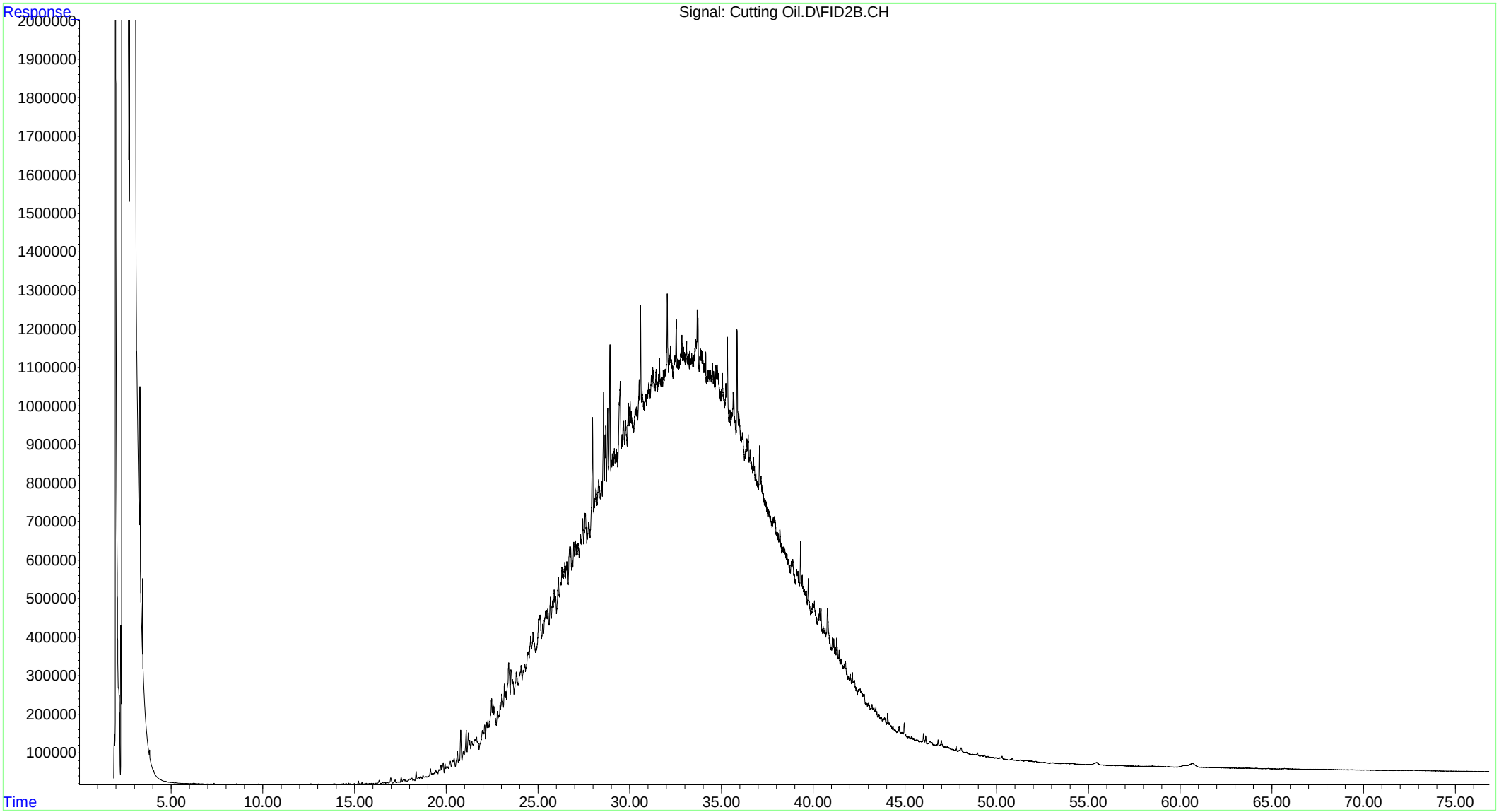
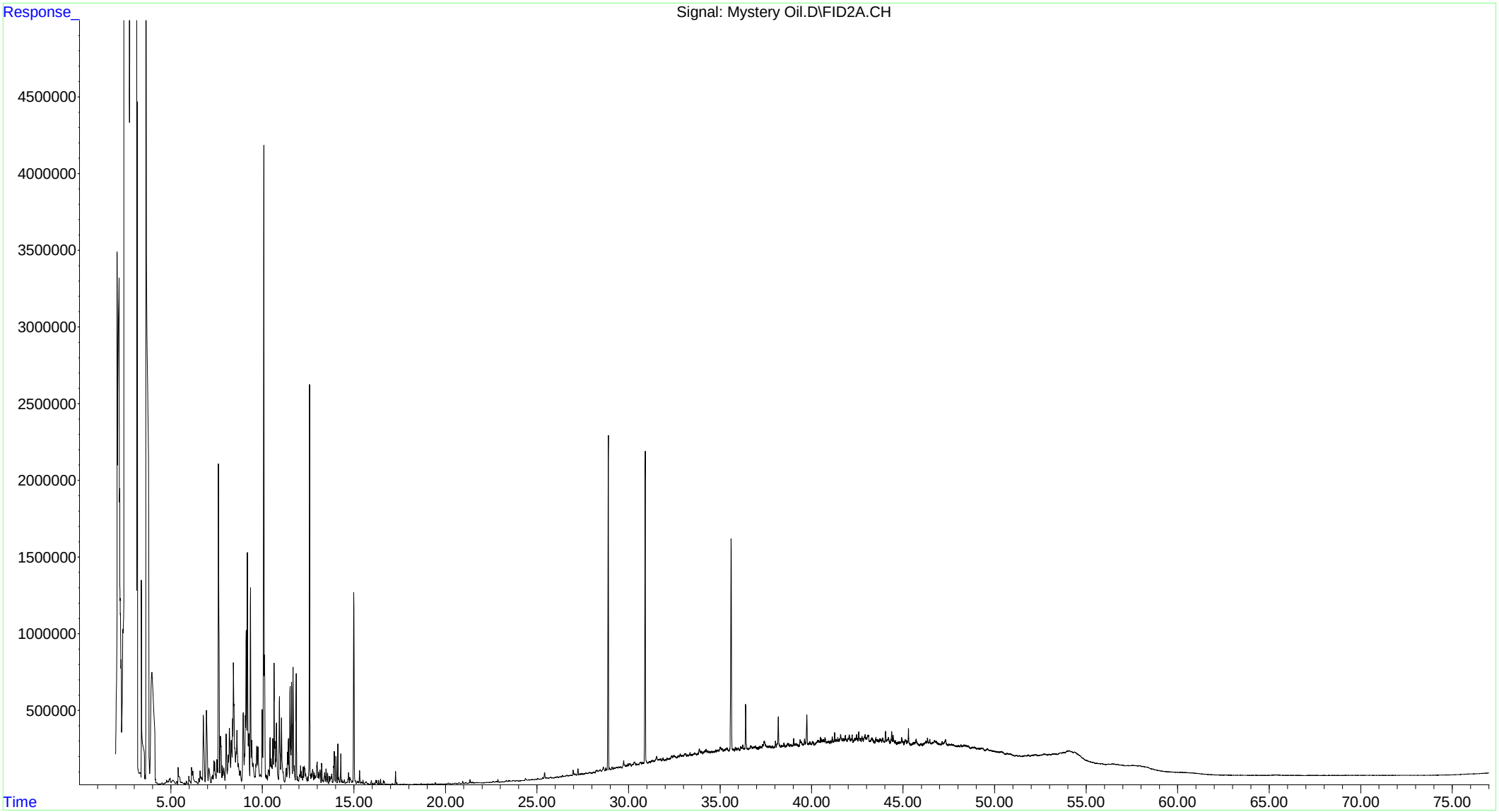
File       :O:\Forensics\LIBRARY\Hydrocarbon Reference Standards\Cutting
...          Oil.D
Operator  : JT
Instrument :   FID 9
Acquired  : 18 Sep 2012   7:30 pm using AcqMethod FID9A.M
Sample    : CUTTING OIL
Misc Info :
```



```
File       :O:\Forensics\LIBRARY\Hydrocarbon Reference Standards\Mystery
...          Oil.D
Operator  : PAH2:AC
Instrument :   PAH 2
Acquired  : 02 Dec 2011   3:17 am using AcqMethod FRNC2AF.M
Sample    : MYSTERY OIL
Misc Info : 1X
```



APPENDIX F

GEOTECHNICAL DATA

ELECTROLUX/JEFFERSON PLANT/IA
SUMMARY OF SOIL DATA

Sample Identification		Sample Type	Sample Depth	Soil Classi-fication	As R'cd Moisture %	Atterberg Limits				Grain Size Distribution			Compaction		Gs	Unit Weight		Permeability (cm/sec)	Additional Tests Conducted (See Notes)
Borehole Number	Sample ID					L.L.	P.L.	P.I.	L.I.	% Finer No. 4 Sieve	% Finer No. 200 Sieve	% Finer .005 mm	Maximum Dry Density (lb/cuft)	Optimum Moisture %		Moisture %	Dry (lb/cuft)		
GA-13-SB-01	1	Bag	5.0-10.0'	CL	17.8	27	15	12	0.22	96.7	53.8	24.0	-	-	-	-	-	-	-
GA-13-SB-01	2	Bag	11.0-15.0'	CL	14.7	26	14	12	0.04	97.2	54.1	25.0	-	-	-	-	-	-	-
GA-13-SB-01	3	Bag	25.0-30.0'	CL	14.6	27	13	14	0.12	98.2	54.0	24.0	-	-	-	-	-	-	-
GA-13-SB-01	4	Bag	32.0-35.0'	CL	11.6	26	16	10	-0.41	96.6	66.7	28.0	-	-	-	-	-	-	-
GA-13-SB-01	5	Bag	35.0-40.0'	SM	10.0	15	13	2	-1.28	99.7	36.6	15.5	-	-	-	-	-	-	-
GA-13-SB-01	6	Bag	40.0-43.0'	CL	9.5	26	15	11	-0.54	97.1	67.2	40.0	-	-	-	-	-	-	-
GA-13-SB-01	7	Bag	50.0-55.0'	CL	9.6	22	14	8	-0.54	97.6	69.9	28.0	-	-	-	-	-	-	-
GA-13-SB-01	8	Bag	60.0-65.0'	ML	30.1	43	28	15	0.15	98.9	81.2	32.0	-	-	-	-	-	-	-

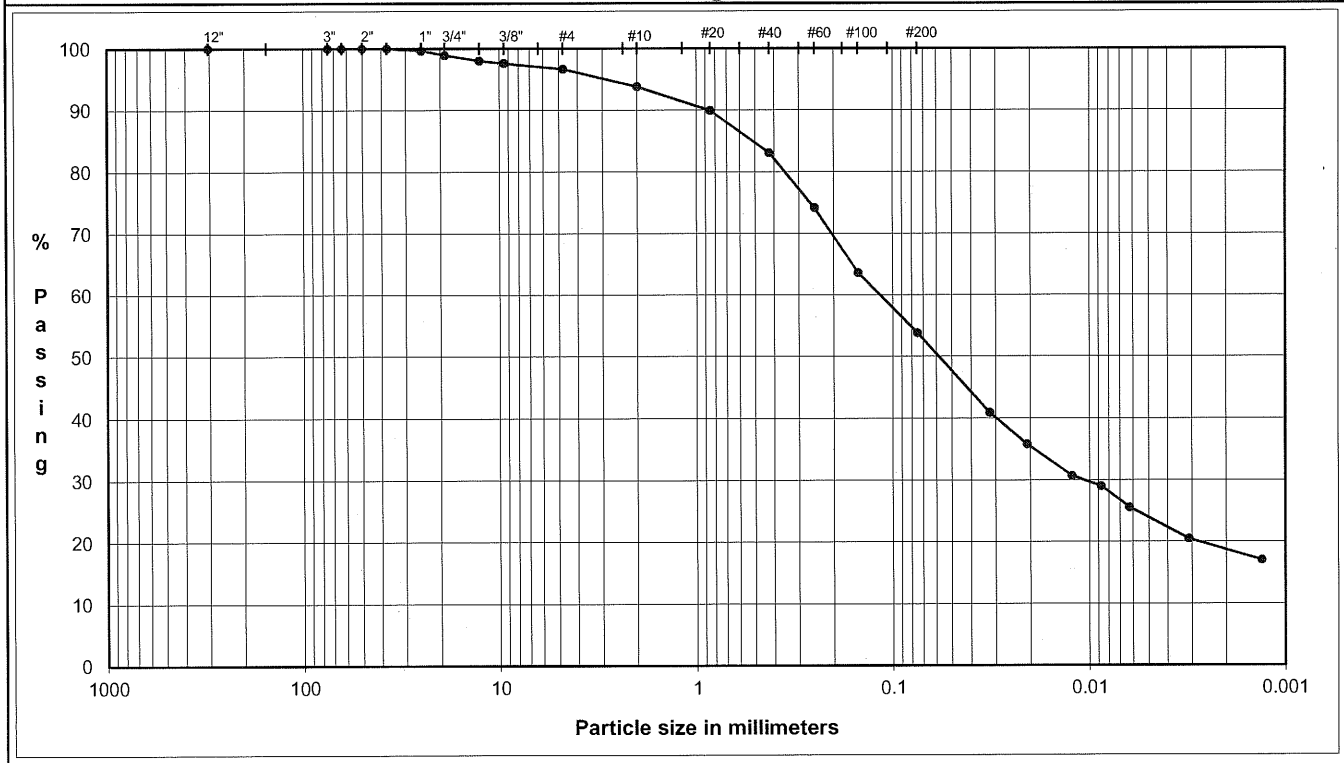
ABBREVIATIONS: LIQUID LIMIT (LL)
PLASTIC LIMIT (PL)
PLASTICITY INDEX (PI)
LIQUIDITY INDEX (LI)
SPECIFIC GRAVITY (Gs)
MOISTURE (Mc)

NOTES: T = TRIAXIAL TEST
U = UNCONFINED COMPRESSION TEST
C = CONSOLIDATION TEST
DS = DIRECT SHEAR TEST
O = ORGANIC CONTENT
P = pH

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **GA-13-SB-01** **1** **Depth:** **5.0-10.0'**
TYPE: **Bag**



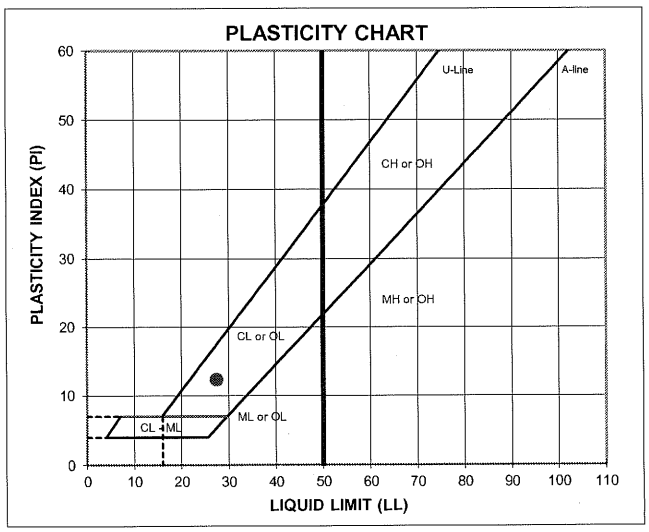
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**99.7**		
0.75"	19.0	**98.9**	Coarse Gravel	**1.08**
0.50"	12.7	**98.0**		
0.375"	9.5	**97.6**		
#4	4.8	**96.7**	Fine Gravel	**2.26**
#10	2.00	**93.8**	Coarse Sand	**2.87**
#20	0.85	**89.9**		
#40	0.43	**83.1**	Medium Sand	**10.70**
#60	0.25	**74.2**		
#100	0.15	**63.6**		
#200	0.075	**53.8**	Fine Sand	**29.29**

Hydrometer Analysis

(mm)	%Finer		
0.032	**41.0**		
0.021	**35.8**		
0.012	**30.7**	Fines	
0.0087	**29.0**	Silt or Clay	**53.81**
0.0063	**25.6**		
0.0031	**20.5**		
0.0013	**17.1**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
17.8	**27**	**15**	**12**	**0.22**

LL (oven-dried) / < 0.75 = ORGANIC (OL/OH)

DESCRIPTION: SILTY CLAY and SAND, fine to coarse, trace fine to coarse gravel; grayish brown.

USCS: CL

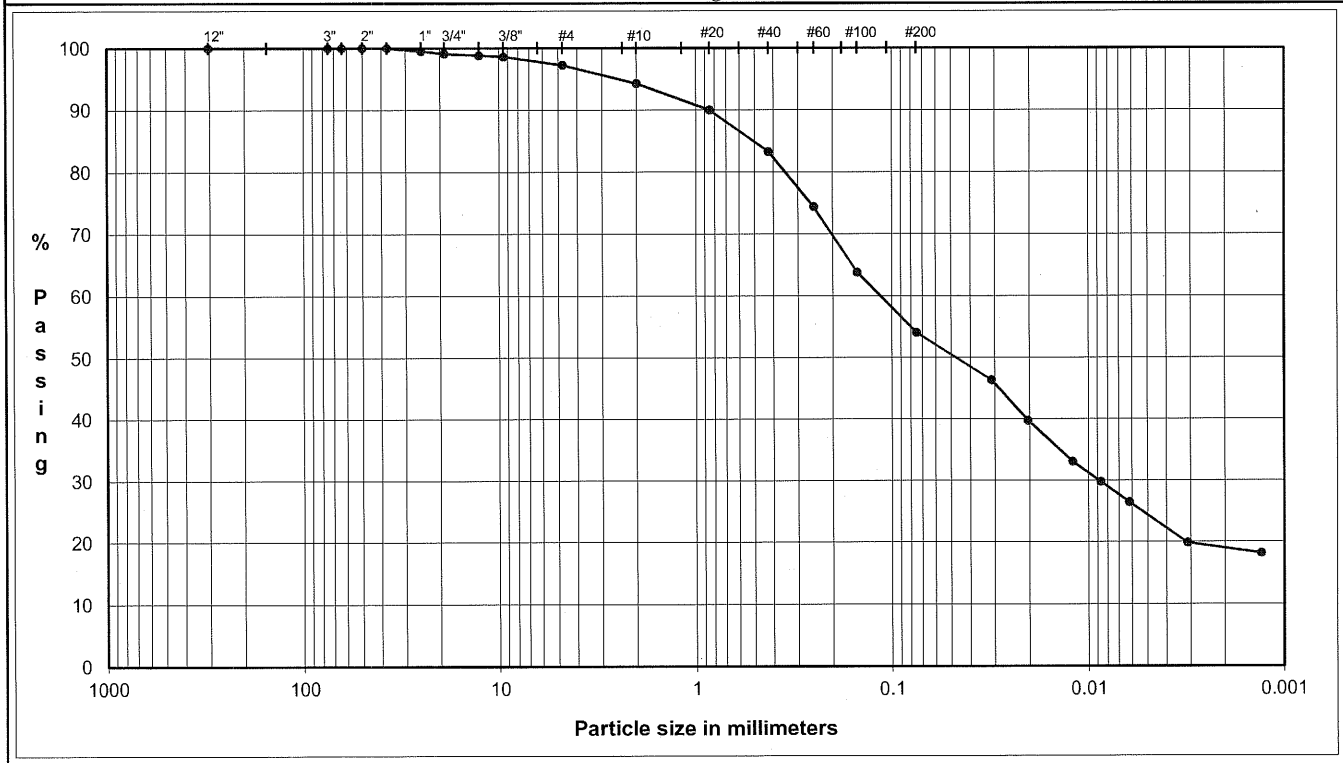
TECH	AM/TJ
DATE	3/5/13
CHECK	
REVIEW	
APPROVE	

MARCH 2013 103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **GA-13-SB-01** **2** **Depth:** **11.0-15.0'**
TYPE: **Bag**



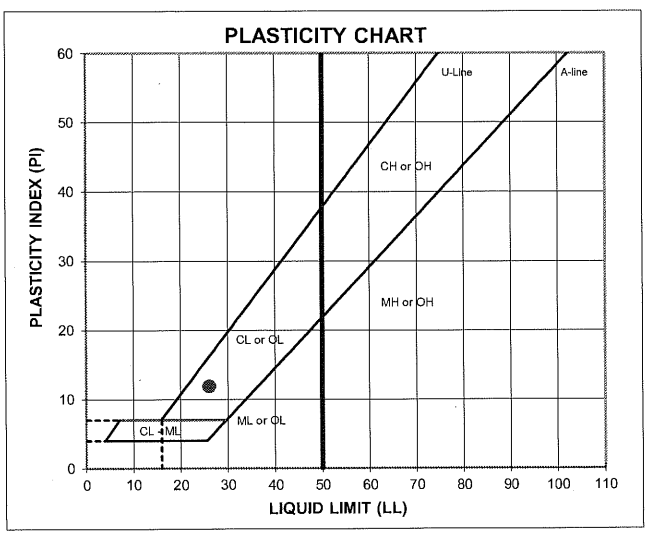
	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
COBBLES	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**99.5**		
0.75"	19.0	**99.1**	Coarse Gravel	**0.89**
0.50"	12.7	**98.8**		
0.375"	9.5	**98.6**		
#4	4.8	**97.2**	Fine Gravel	**1.88**
#10	2.00	**94.3**	Coarse Sand	**2.95**
#20	0.85	**90.0**		
#40	0.43	**83.3**	Medium Sand	**10.98**
#60	0.25	**74.4**		
#100	0.15	**63.8**		
#200	0.075	**54.1**	Fine Sand	**29.22**

Hydrometer Analysis

(mm)	%Finer		
0.031	**46.4**		
0.020	**39.7**		
0.012	**33.1**	Fines	
0.0087	**29.8**	Silt or Clay	**54.08**
0.0062	**26.5**		
0.0031	**19.9**		
0.0013	**18.2**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
14.7	**26**	**14**	**12**	**0.04**

LL (oven-dried)	
< 0.75 = ORGANIC (OL/OH)	

DESCRIPTION: SILTY CLAY and SAND, fine to coarse, trace fine to coarse gravel; dark gray.

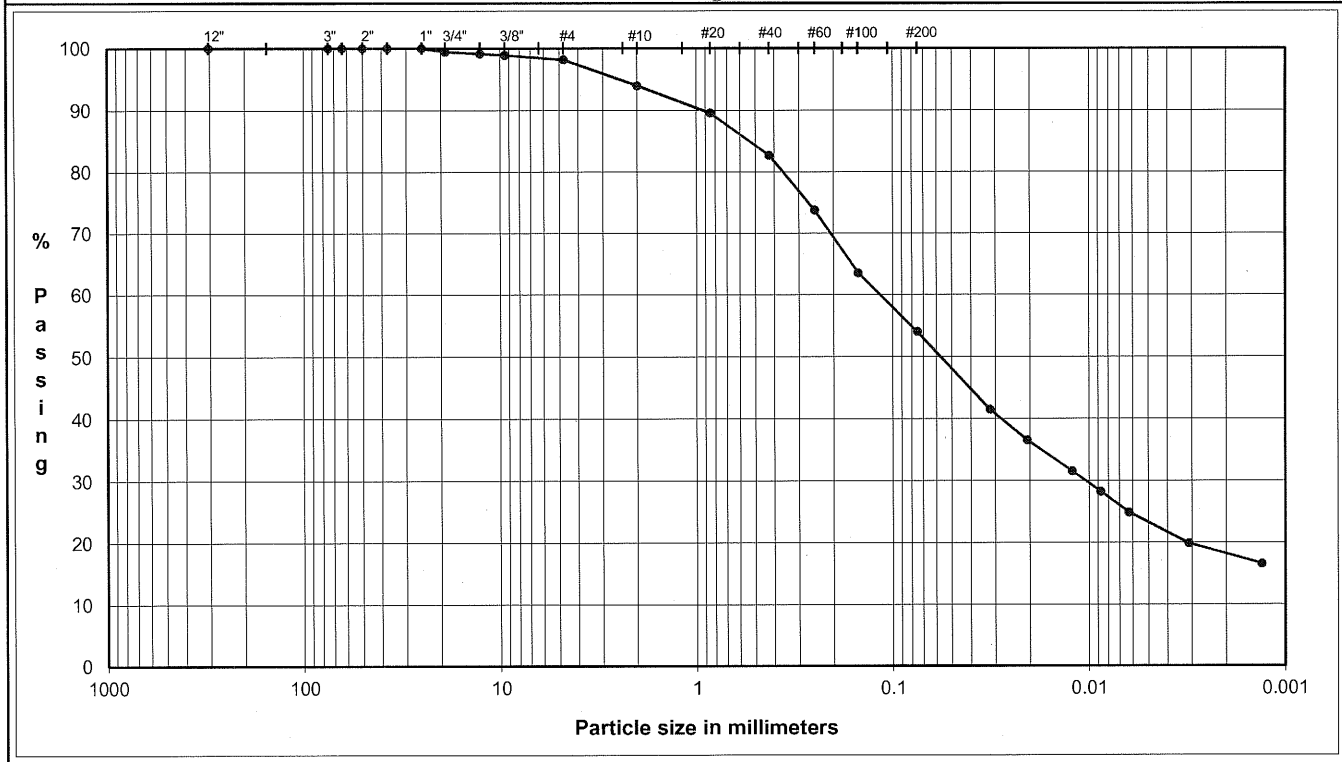
USCS: CL

TECH	TW/AM/TJ
DATE	3/5/13
CHECK	gam
REVIEW	RWH
APPROVE	

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **GA-13-SB-01** **3** **Depth: 25.0-30.0'**
TYPE: **Bag**



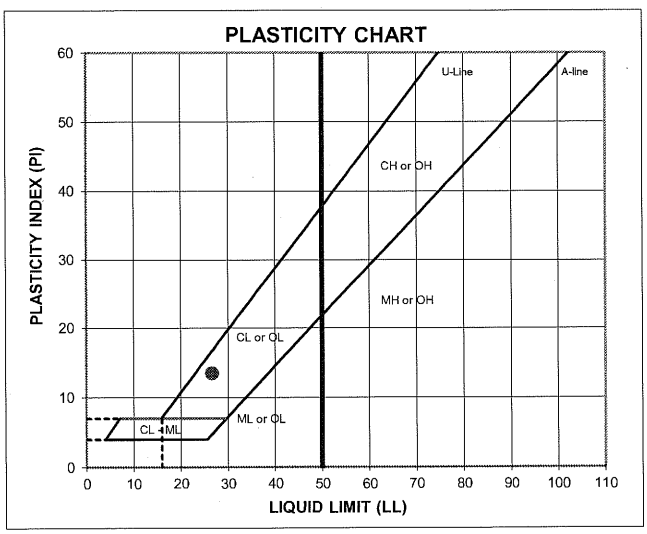
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**100.0**		
0.75"	19.0	**99.4**	Coarse Gravel	**0.58**
0.50"	12.7	**99.1**		
0.375"	9.5	**98.9**		
#4	4.8	**98.2**	Fine Gravel	**1.25**
#10	2.00	**94.0**	Coarse Sand	**4.20**
#20	0.85	**89.6**		
#40	0.43	**82.7**	Medium Sand	**11.23**
#60	0.25	**73.8**		
#100	0.15	**63.5**		
#200	0.075	**54.0**	Fine Sand	**28.70**

Hydrometer Analysis

(mm)	%Finer		
0.032	**41.5**		
0.021	**36.6**		
0.012	**31.6**	Fines	
0.0087	**28.2**	Silt or Clay	**54.04**
0.0063	**24.9**		
0.0031	**19.9**		
0.0013	**16.6**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
14.6	**27**	**13**	**14**	**0.12**

LL (oven-dried)	
< 0.75 = ORGANIC (OL/OH)	

DESCRIPTION: SILTY CLAY and SAND, fine to coarse, trace fine to coarse gravel; gray.

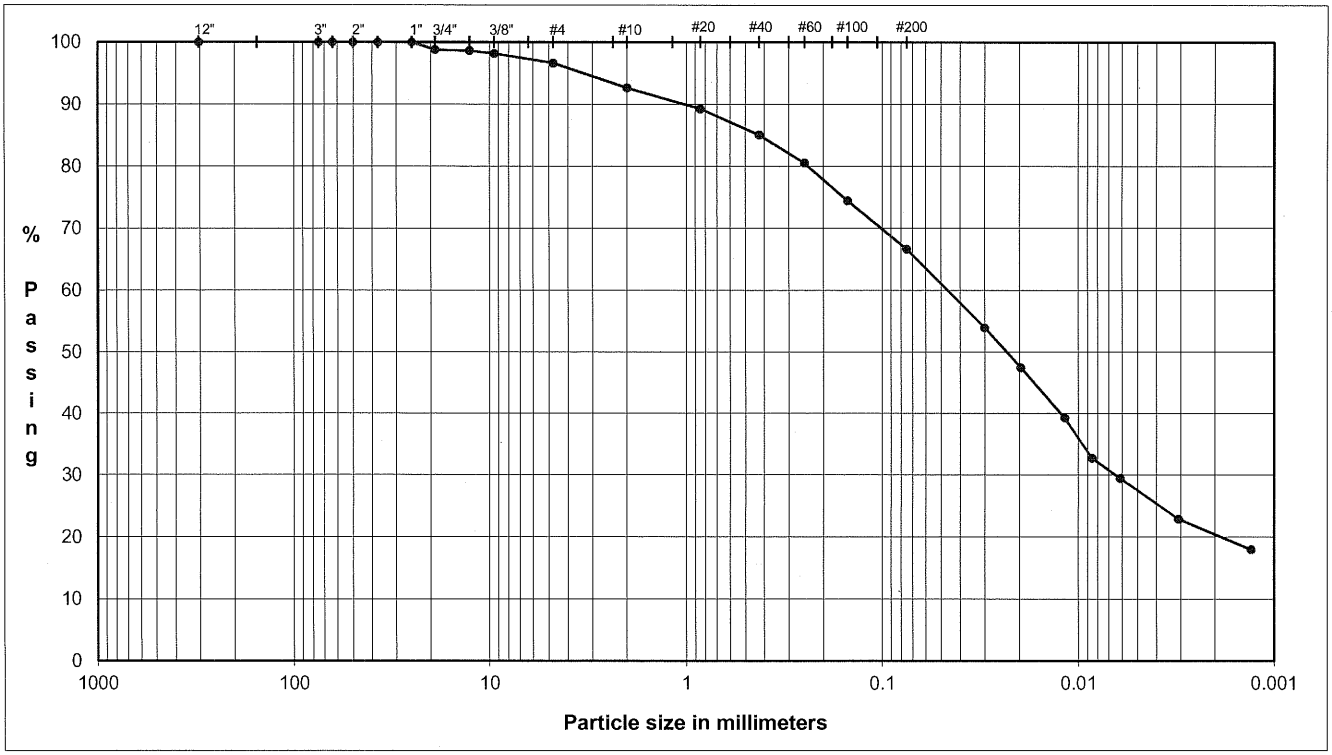
USCS: CL

TECH	AM/TJ
DATE	3/5/13
CHECK	
REVIEW	
APPROVE	

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **GA-13-SB-01** **4** **Depth:** **32.0-35.0'**
TYPE: **Bag**



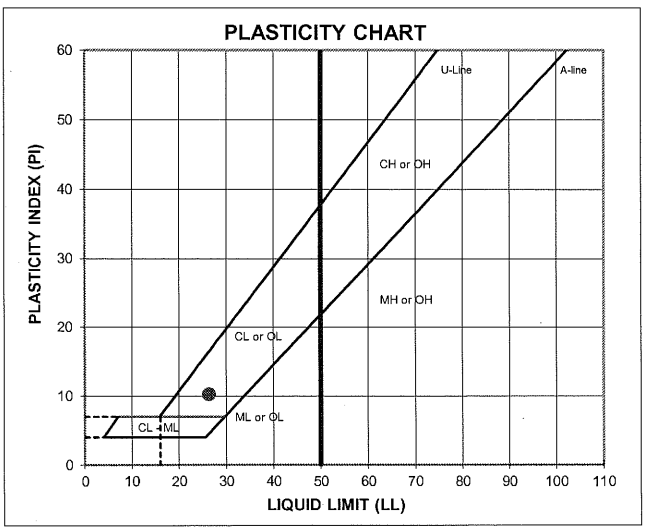
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**100.0**		
0.75"	19.0	**98.8**	Coarse Gravel	**1.20**
0.50"	12.7	**98.6**		
0.375"	9.5	**98.2**		
#4	4.8	**96.6**	Fine Gravel	**2.17**
#10	2.00	**92.6**	Coarse Sand	**3.99**
#20	0.85	**89.2**		
#40	0.43	**85.1**	Medium Sand	**7.59**
#60	0.25	**80.5**		
#100	0.15	**74.4**		
#200	0.075	**66.7**	Fine Sand	**18.40**

Hydrometer Analysis

(mm)	%Finer		
0.030	**54.0**		
0.020	**47.4**		
0.012	**39.3**	Fines	
0.0085	**32.7**	Silt or Clay	**66.65**
0.0061	**29.4**		
0.0031	**22.9**		
0.0013	**18.0**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
11.6	**26**	**16**	**10**	**-0.41**

LL (oven-dried)	
< 0.75 = ORGANIC (OL/OH)	

DESCRIPTION: sandy SITLY CLAY, fine to coarse, trace fine to coarse gravel; olive yellow.

USCS: CL

TECH	AM/TJ
DATE	3/5/13
CHECK	aam
REVIEW	MWY
APPROVE	

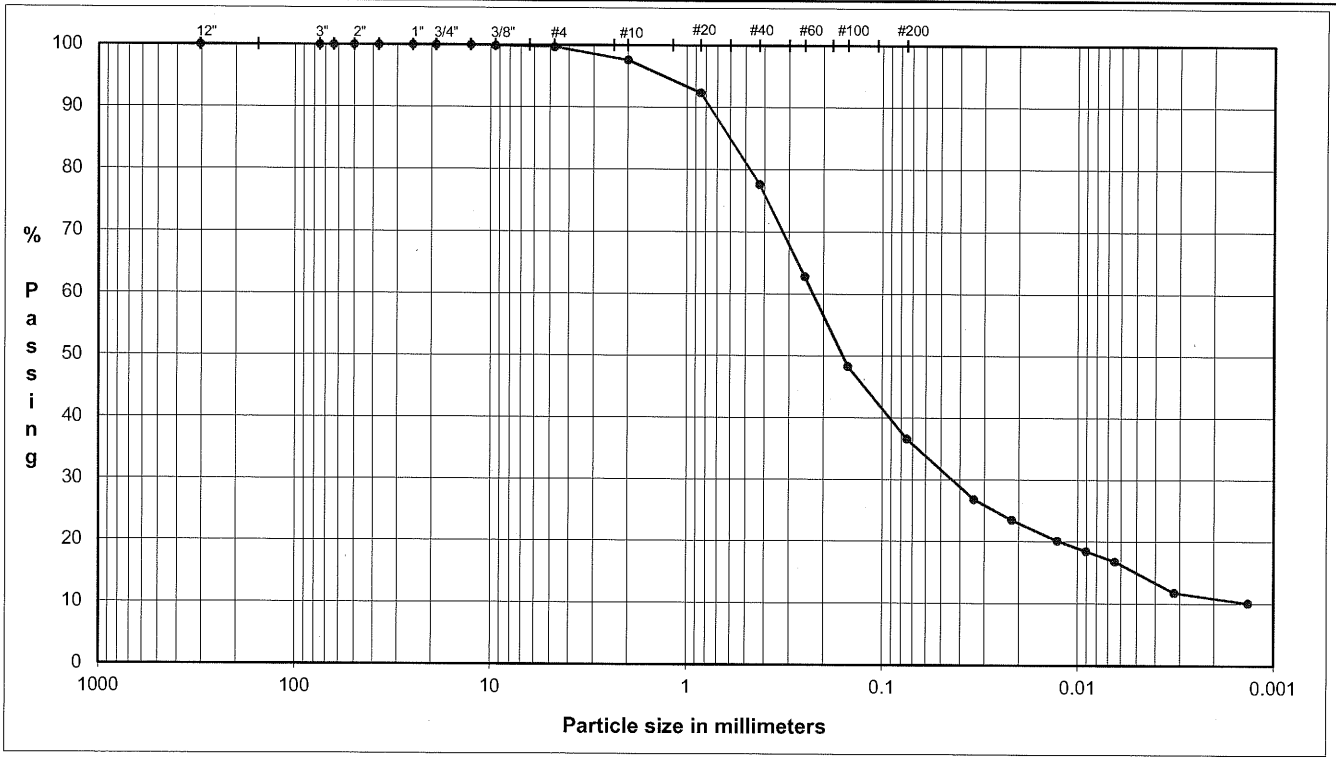
MARCH 2013

103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **GA-13-SB-01** **5** Depth: **35.0-40.0'**
TYPE: **Bag**



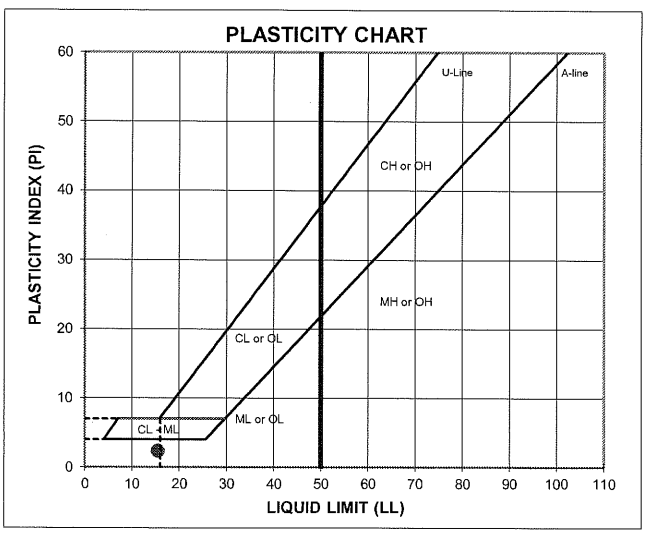
	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
COBBLES	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**100.0**		
0.75"	19.0	**100.0**	Coarse Gravel	**0.00**
0.50"	12.7	**100.0**		
0.375"	9.5	**99.9**		
#4	4.8	**99.7**	Fine Gravel	**0.30**
#10	2.00	**97.6**	Coarse Sand	**2.12**
#20	0.85	**92.3**		
#40	0.43	**77.6**	Medium Sand	**19.96**
#60	0.25	**62.9**		
#100	0.15	**48.3**		
#200	0.075	**36.6**	Fine Sand	**40.98**

Hydrometer Analysis

(mm)	%Finer		
0.034	**26.9**		
0.022	**23.5**		
0.013	**20.1**	Fines	
0.0091	**18.5**	Silt or Clay	**36.64**
0.0065	**16.8**		
0.0032	**11.8**		
0.0013	**10.1**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
10.0	**15**	**13**	**2**	**-1.28**

LL (oven-dried)	
< 0.75 = ORGANIC (OL/OH)	

DESCRIPTION: SAND and SILT, fine to coarse, trace fine gravel; light yellowish brown.

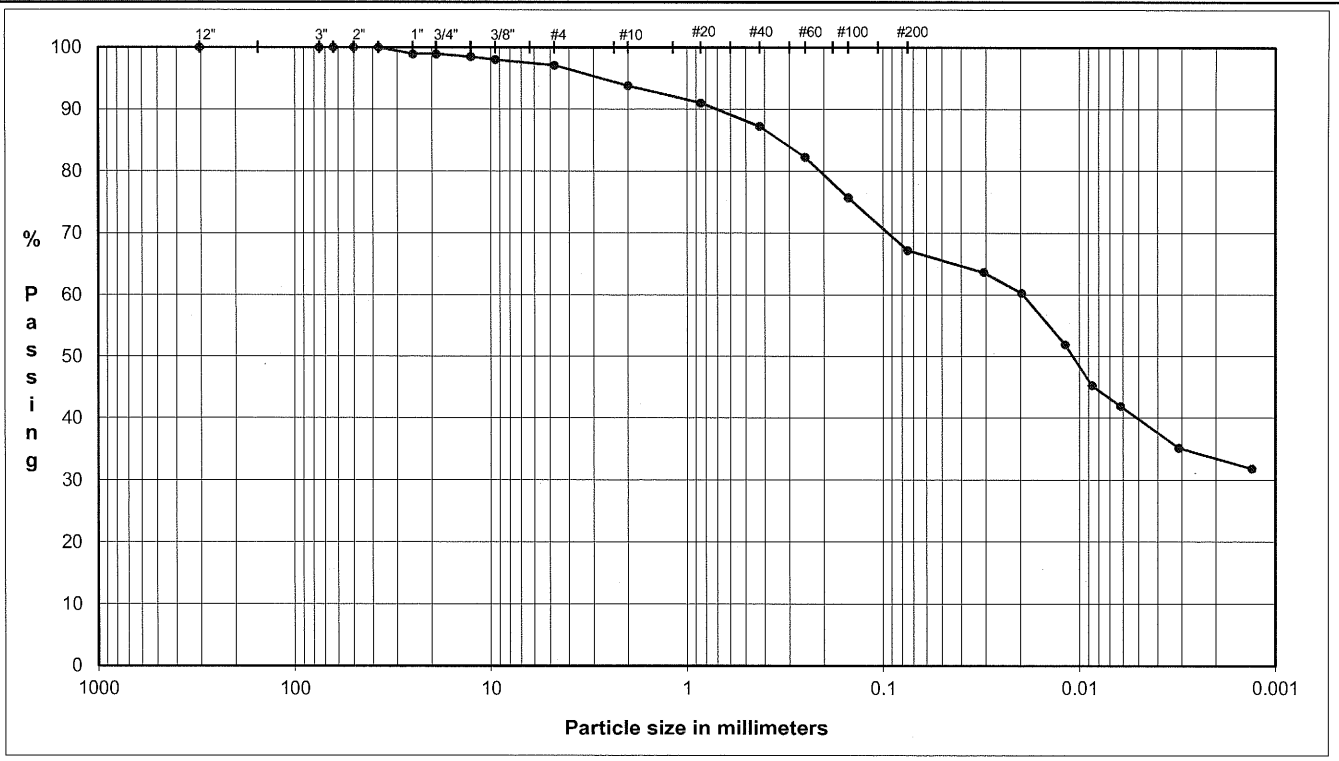
USCS: SM

TECH	AM/TJ
DATE	3/5/13
CHECK	aem
REVIEW	Hm
APPROVE	

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **GA-13-SB-01** **6** Depth: **40.0-43.0'**
TYPE: **Bag**



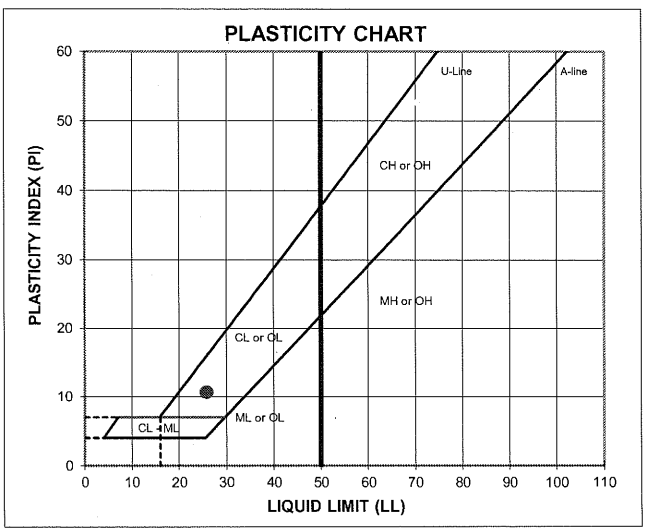
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**98.9**		
0.75"	19.0	**98.9**	Coarse Gravel	**1.08**
0.50"	12.7	**98.5**		
0.375"	9.5	**98.0**		
#4	4.8	**97.1**	Fine Gravel	**1.81**
#10	2.00	**93.8**	Coarse Sand	**3.32**
#20	0.85	**91.0**		
#40	0.43	**87.2**	Medium Sand	**6.55**
#60	0.25	**82.3**		
#100	0.15	**75.7**		
#200	0.075	**67.2**	Fine Sand	**20.01**

Hydrometer Analysis

(mm)	%Finer		
0.031	**63.7**		
0.020	**60.3**		
0.012	**51.9**	Fines	
0.0086	**45.2**	Silt or Clay	**67.23**
0.0062	**41.9**		
0.0031	**35.2**		
0.0013	**31.8**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
9.5	**26**	**15**	**11**	**-0.54**

LL (oven-dried) < 0.75 = ORGANIC (OL/OH)

DESCRIPTION: sandy SILTY CLAY, fine to coarse, trace fine to coarse gravel; light olive brown.

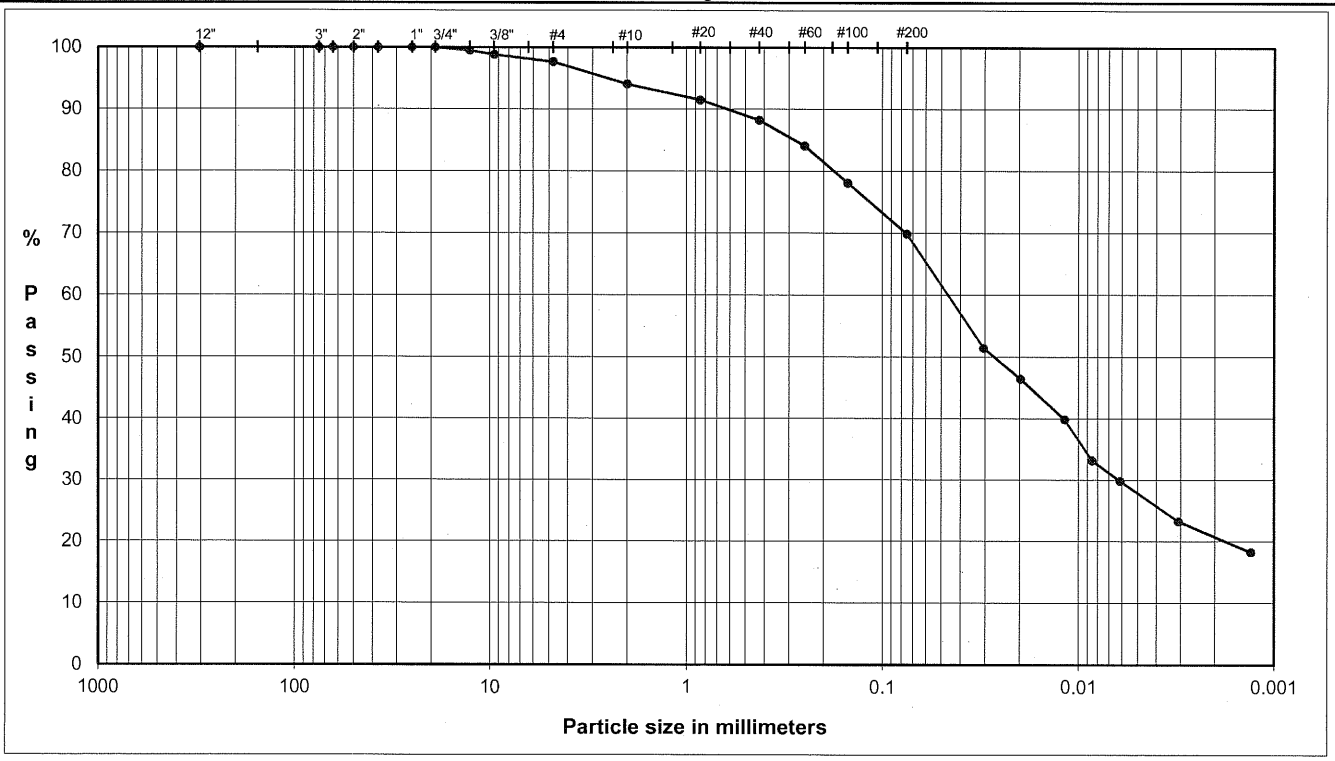
USCS: CL

TECH	AM/TJ
DATE	3/5/13
CHECK	aam
REVIEW	lwm
APPROVE	

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **GA-13-SB-01** **7** Depth: **50.0-55.0'**
TYPE: **Bag**



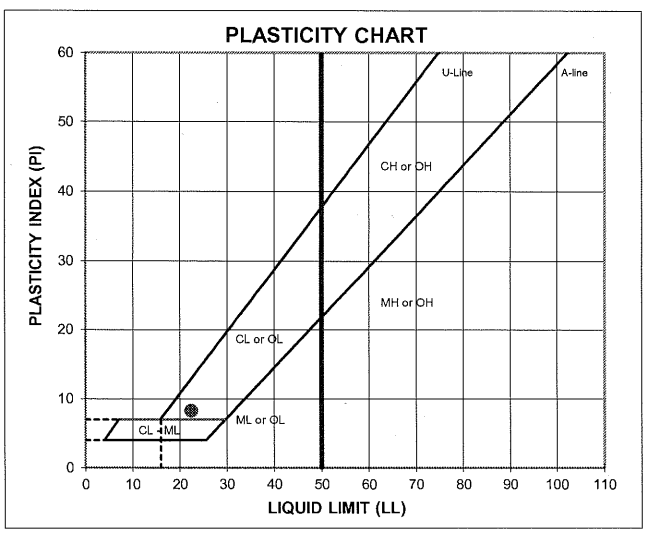
	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
COBBLES	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**100.0**		
0.75"	19.0	**100.0**	Coarse Gravel	**0.00**
0.50"	12.7	**99.5**		
0.375"	9.5	**98.8**		
#4	4.8	**97.6**	Fine Gravel	**2.37**
#10	2.00	**94.1**	Coarse Sand	**3.57**
#20	0.85	**91.5**		
#40	0.43	**88.2**	Medium Sand	**5.84**
#60	0.25	**84.1**		
#100	0.15	**78.1**		
#200	0.075	**69.9**	Fine Sand	**18.33**

Hydrometer Analysis

(mm)	%Finer		
0.030	**51.5**		
0.020	**46.5**		
0.012	**39.8**	Fines	
0.0085	**33.2**	Silt or Clay	**69.89**
0.0061	**29.9**		
0.0031	**23.2**		
0.0013	**18.3**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
9.6	**22**	**14**	**8**	**-0.54**

LL (oven-dried)	
< 0.75 = ORGANIC (OL/OH)	

DESCRIPTION: sandy SILTY CLAY, fine to coarse, trace fine gravel; dark gray.

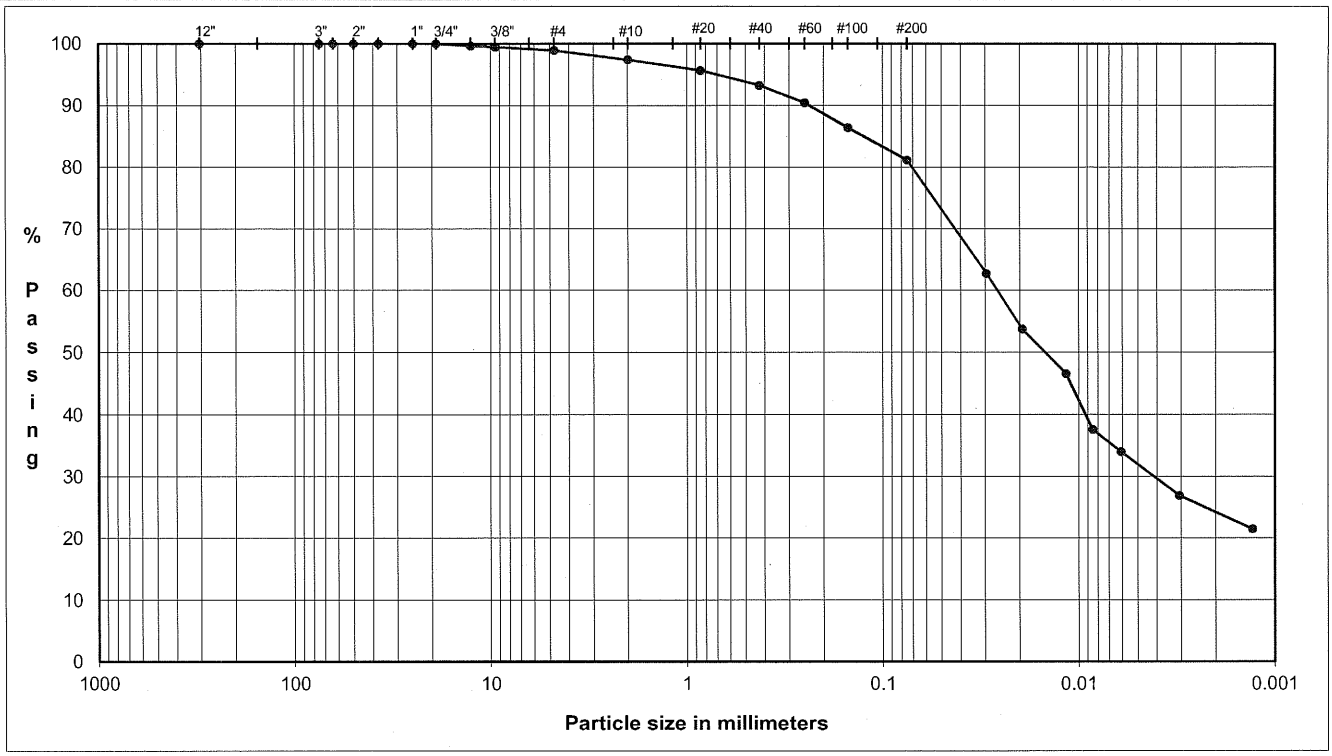
USCS: CL

TECH	TW/AM/TJ
DATE	3/5/13
CHECK	aam
REVIEW	MWM
APPROVE	

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **GA-13-SB-01** **8** **Depth: 60.0-65.0'**
TYPE: **Bag**



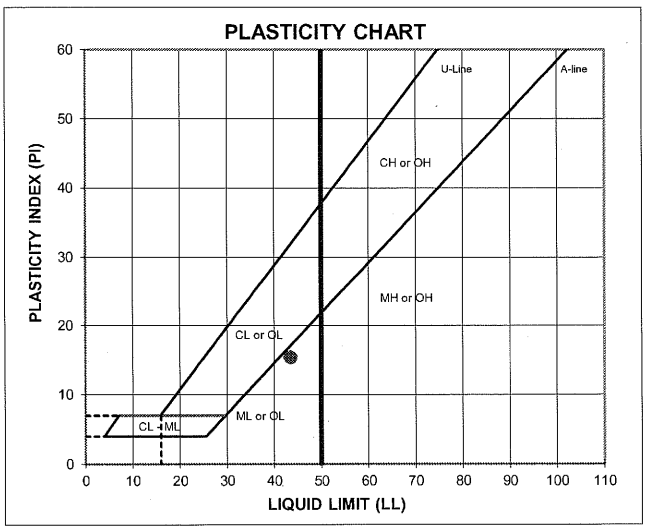
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**100.0**		
0.75"	19.0	**100.0**	Coarse Gravel	**0.00**
0.50"	12.7	**99.6**		
0.375"	9.5	**99.5**		
#4	4.8	**98.9**	Fine Gravel	**1.11**
#10	2.00	**97.4**	Coarse Sand	**1.49**
#20	0.85	**95.6**		
#40	0.43	**93.2**	Medium Sand	**4.16**
#60	0.25	**90.4**		
#100	0.15	**86.4**		
#200	0.075	**81.2**	Fine Sand	**12.08**

Hydrometer Analysis

(mm)	%Finer		
0.030	**62.7**		
0.019	**53.7**		
0.012	**46.6**	Fines	
0.0085	**37.6**	Silt or Clay	**81.17**
0.0061	**34.0**		
0.0031	**26.9**		
0.0013	**21.5**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
30.1	**43**	**28**	**15**	**0.15**

LL (oven-dried) / < 0.75 = ORGANIC (OL/OH)

DESCRIPTION: sandy CLAYEY SILT, fine to coarse, trace fine gravel; black.

USCS: ML

TECH	TW/AM/TJ
DATE	3/5/13
CHECK	aem
REVIEW	PWH
APPROVE	

ELECTROLUX/JEFFERSON PLANT/IA
SUMMARY OF SOIL DATA

Sample Identification	Sample Type	Sample Depth	Soil Classi-fication	As R'cd Moisture %	Atterberg Limits				Grain Size Distribution			Compaction		Gs	Unit Weight		Permeability (cm/sec)	Additional Tests Conducted (See Notes)
					L.L.	P.L.	P.I.	L.I.	% Finer No. 4 Sieve	% Finer No. 200 Sieve	% Finer .005 mm	Maximum Dry Density (lb/cuft)	Optimum Moisture %		Moisture %	Dry (lb/cuft)		
MW-62	Bag	3.5-4.0'	CL	16.4	24	16	8	0.00	97.8	53.9	22.0	-	-	-	-	-	-	-
MW-62	Bag	20.4-21.0'	CL	15.2	25	15	10	0.00	96.6	53.8	24.0	-	-	-	-	-	-	-
MW-62	Bag	31.0-32.0'	SC-SM	10.9	19	15	4	-1.16	96.2	45.7	14.0	-	-	-	-	-	-	-
MW-62	Bag	37.0-38.0'	SM	14.3	NP	NP	NP	NP	98.1	48.1	7.1	-	-	-	-	-	-	-
MW-62	Bag	43.5-44.5'	CL-ML	11.5	20	15	5	-0.66	97.7	65.1	20.5	-	-	-	-	-	-	-
MW-62	Bag	55.4-56.0'	MH	61.1	86	67	19	-0.32	100.0	88.1	27.0	-	-	-	-	-	-	-
MW-62	Bag	59.0-60.0'	CL	15.6	33	18	15	-0.20	100.0	74.0	33.0	-	-	-	-	-	-	-
MW-62	Bag	69.0-70.0'	CL	17.1	31	18	13	-0.05	98.7	77.7	31.0	-	-	-	-	-	-	-
MW-63	Bag	14.0-14.5'	CL	14.9	25	15	10	-0.01	98.3	54.0	22.5	-	-	-	-	-	-	-
MW-63	Bag	30.0-31.0'	SC-SM	11.8	19	15	4	-0.90	95.3	44.2	13.5	-	-	-	-	-	-	-
MW-63	Bag	34.0-35.0'	SC-SM	8.4	19	15	4	-1.72	93.3	40.5	12.0	-	-	-	-	-	-	-
MW-63	Bag	43.5-44.5'	CL	11.2	26	16	10	-0.47	98.0	66.9	28.0	-	-	-	-	-	-	-
MW-63	Bag	47.9-48.5'	CL	20.8	28	20	8	0.15	100.0	81.0	33.0	-	-	-	-	-	-	-
MW-63	Bag	59.7-60.2'	CL	14.1	34	17	17	-0.19	98.8	70.3	34.5	-	-	-	-	-	-	-
MW-65	Bag	54.5-55.0'	CL	11.2	26	17	9	-0.74	94.2	62.6	25.0	-	-	-	-	-	-	-

ABBREVIATIONS: LIQUID LIMIT (LL)
PLASTIC LIMIT (PL)
PLASTICITY INDEX (PI)
LIQUIDITY INDEX (LI)
SPECIFIC GRAVITY (Gs)
MOISTURE (Mc)

NOTES: T = TRIAXIAL TEST
U = UNCONFINED COMPRESSION TEST
C = CONSOLIDATION TEST
DS = DIRECT SHEAR TEST
O = ORGANIC CONTENT
P = pH

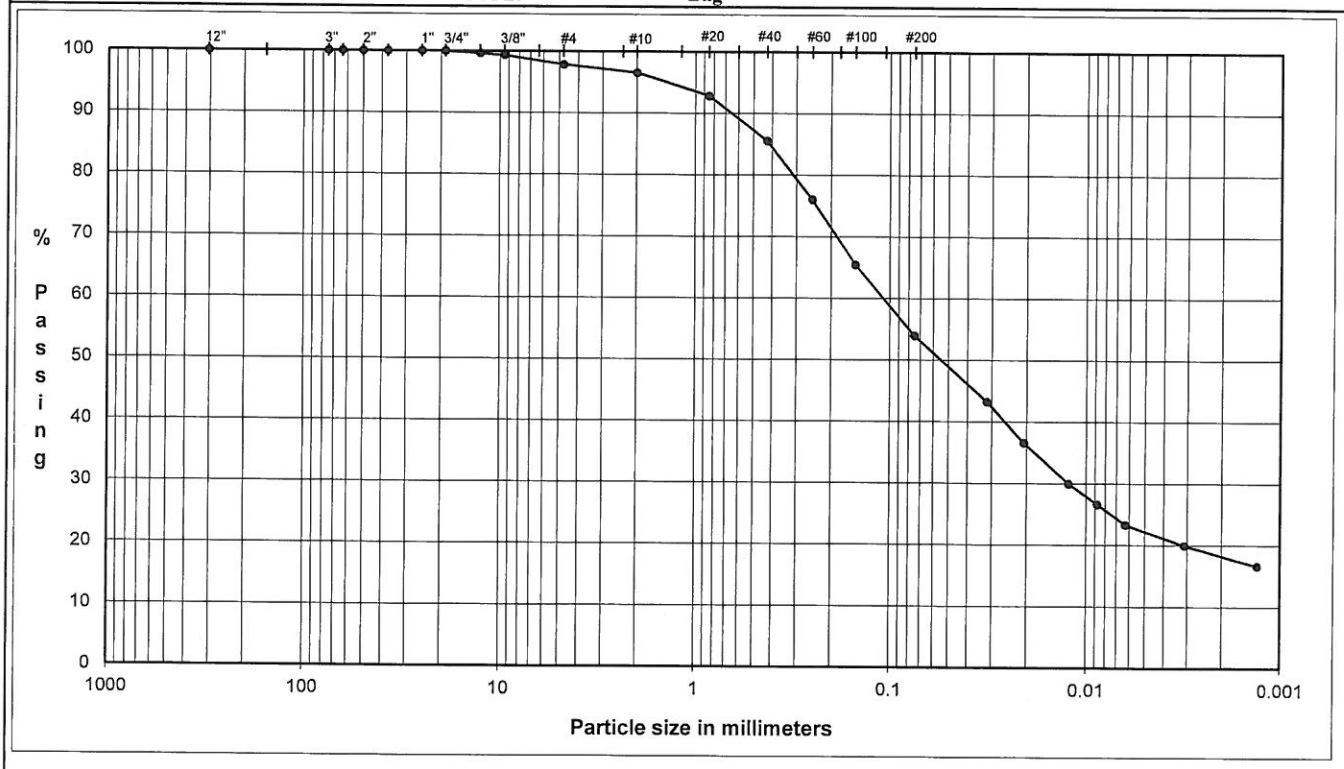
SEPTEMBER 2013

103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-62 Depth: 3.5-4.0'
TYPE: Bag



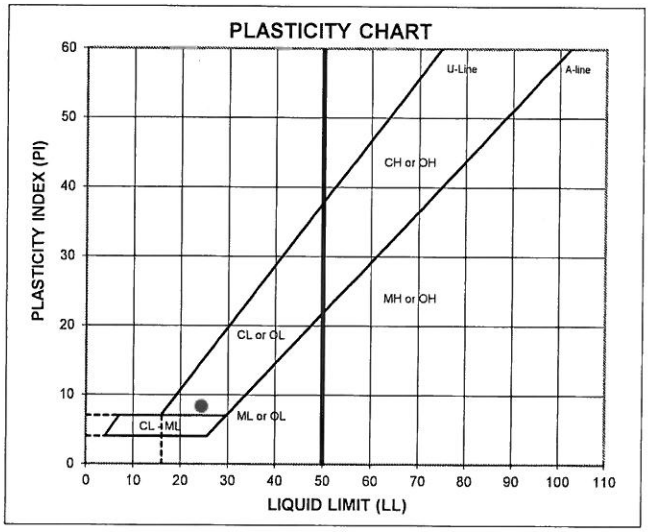
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	100.0	Coarse Gravel	0.00
0.50"	12.7	99.6		
0.375"	9.5	99.3		
#4	4.8	97.8	Fine Gravel	2.17
#10	2.00	96.5	Coarse Sand	1.30
#20	0.85	92.8		
#40	0.43	85.5	Medium Sand	11.00
#60	0.25	76.0		
#100	0.15	65.5		
#200	0.075	53.9	Fine Sand	31.59

Hydrometer Analysis

(mm)	%Finer		
0.032	43.3		
0.021	36.6		
0.012	29.9	Fines	
0.0088	26.6	Silt or Clay	53.95
0.0063	23.3		
0.0031	20.0		
0.0013	16.6		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
16.4	24	16	8	0.00

LL (oven-dried) / < 0.75 = ORGANIC (OL/OH)

DESCRIPTION: SILTY CLAY and fine to coarse SAND, trace fine gravel; olive yellow.

USCS: CL

TECH	TW/AM/TJ
DATE	9/26/13
CHECK	aem
REVIEW	RWM
APPROVE	

Golder Associates Inc.

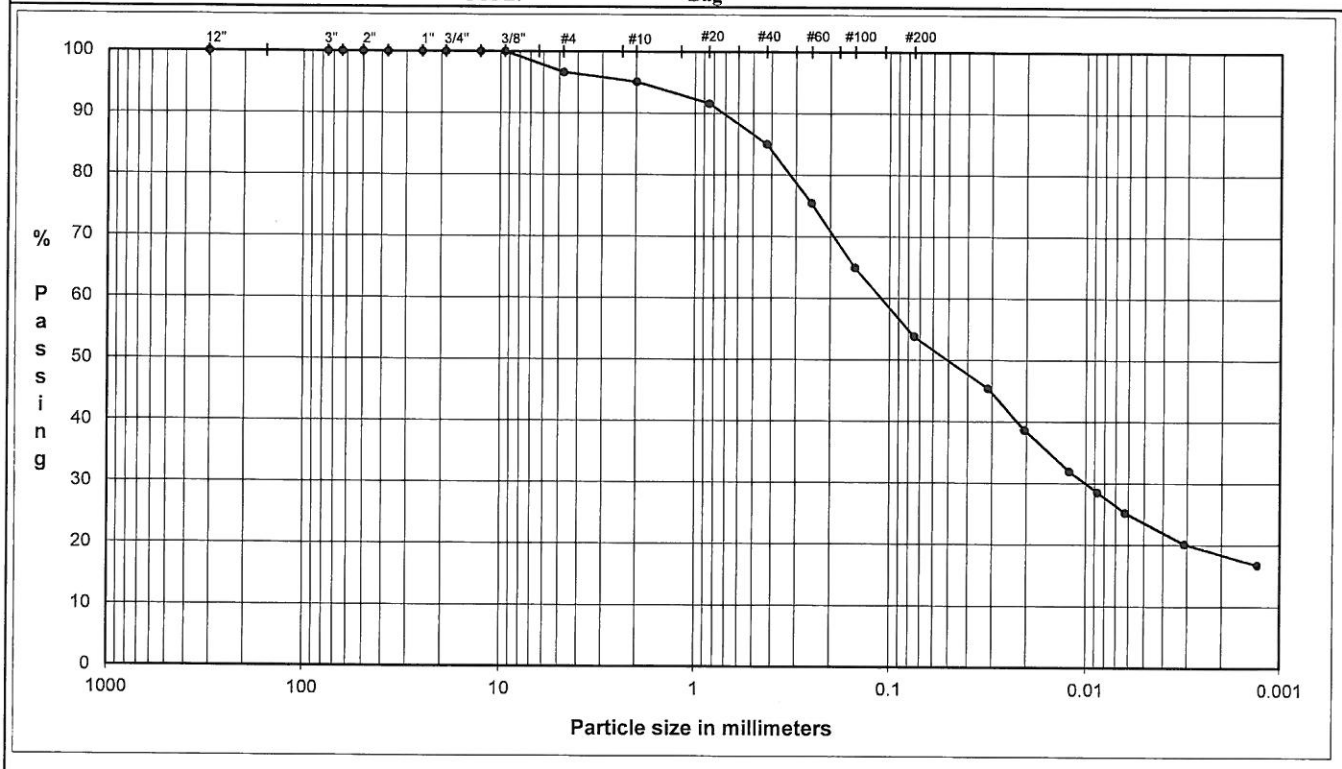
SEPTEMBER 2013

103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **MW-62** **0 Depth: 20.4-21.0'**
TYPE: **Bag**



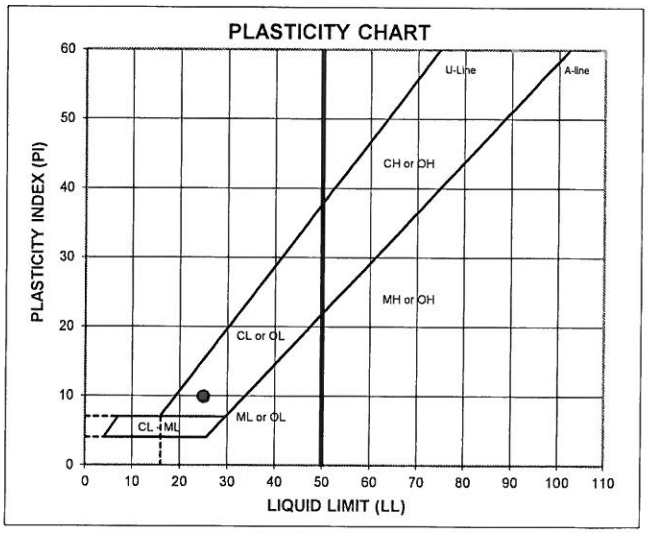
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**100.0**		
0.75"	19.0	**100.0**	Coarse Gravel	**0.00**
0.50"	12.7	**100.0**		
0.375"	9.5	**100.0**		
#4	4.8	**96.6**	Fine Gravel	**3.36**
#10	2.00	**95.1**	Coarse Sand	**1.55**
#20	0.85	**91.6**		
#40	0.43	**85.0**	Medium Sand	**10.09**
#60	0.25	**75.5**		
#100	0.15	**65.0**		
#200	0.075	**53.8**	Fine Sand	**31.18**

Hydrometer Analysis

(mm)	%Finer		
0.032	**45.4**		
0.020	**38.7**		
0.012	**32.0**	Fines	
0.0087	**28.6**	Silt or Clay	**53.83**
0.0063	**25.2**		
0.0031	**20.2**		
0.0013	**16.8**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
15.2	**25**	**15**	**10**	**0.00**

LL (oven-dried)	
< 0.75 = ORGANIC (OL/OH)	

DESCRIPTION: SILTY CLAY and fine to coarse SAND, trace fine gravel; dark gray.

USCS: CL

TECH	TJ/TW
DATE	9/25/13
CHECK	aem
REVIEW	[illegible]
APPROVE	

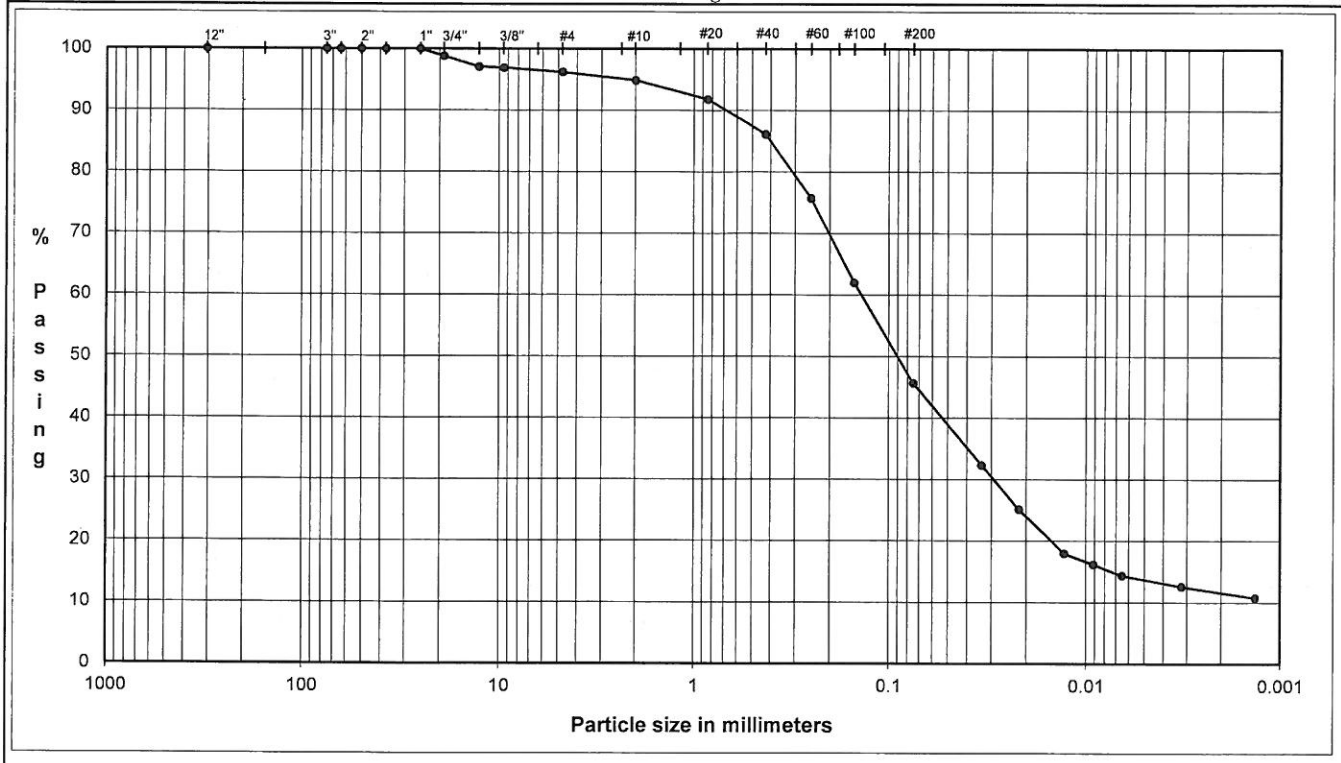
Golder Associates Inc.

SEPTEMBER 2013 103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **MW-62** **Depth: 31.0-32.0'**
TYPE: **Bag**



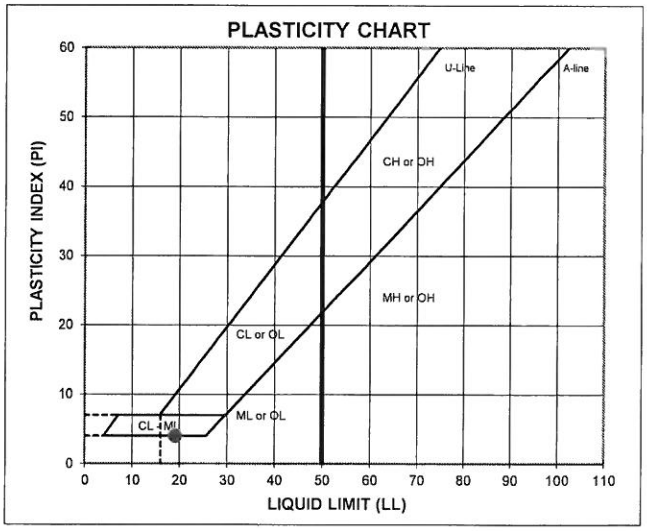
	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
COBBLES	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**100.0**		
0.75"	19.0	**98.8**	Coarse Gravel	**1.22**
0.50"	12.7	**97.0**		
0.375"	9.5	**96.9**		
#4	4.8	**96.2**	Fine Gravel	**2.61**
#10	2.00	**94.9**	Coarse Sand	**1.31**
#20	0.85	**91.8**		
#40	0.43	**86.1**	Medium Sand	**8.77**
#60	0.25	**75.7**		
#100	0.15	**62.0**		
#200	0.075	**45.7**	Fine Sand	**40.40**

Hydrometer Analysis

(mm)	%Finer		
0.034	**32.3**		
0.022	**25.1**		
0.013	**18.0**	Fines	
0.0092	**16.2**	Silt or Clay	**45.70**
0.0065	**14.4**		
0.0032	**12.6**		
0.0013	**10.8**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
10.9	**19**	**15**	**4**	**-1.16**

LL (oven-dried)	
< 0.75 = ORGANIC (OL/OH)	

DESCRIPTION: fine to coarse SAND and SILTY CLAY to CLAYEY SILT, trace fine to coarse gravel; brownish yellow.

USCS: SC-SM

TECH	AM/TJ
DATE	9/25/13
CHECK	aem
REVIEW	
APPROVE	

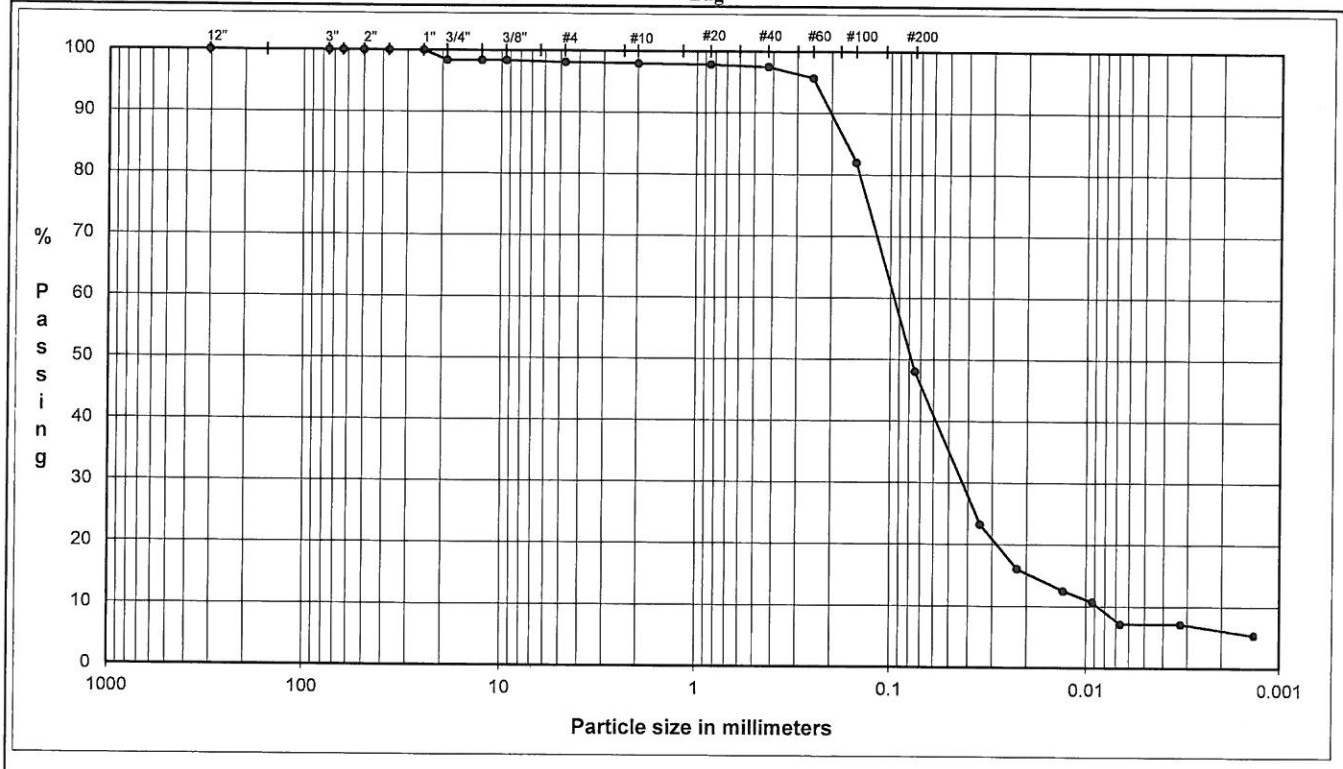
SEPTEMBER 2013

103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-62 Depth: 37.0-38.0
TYPE: Bag



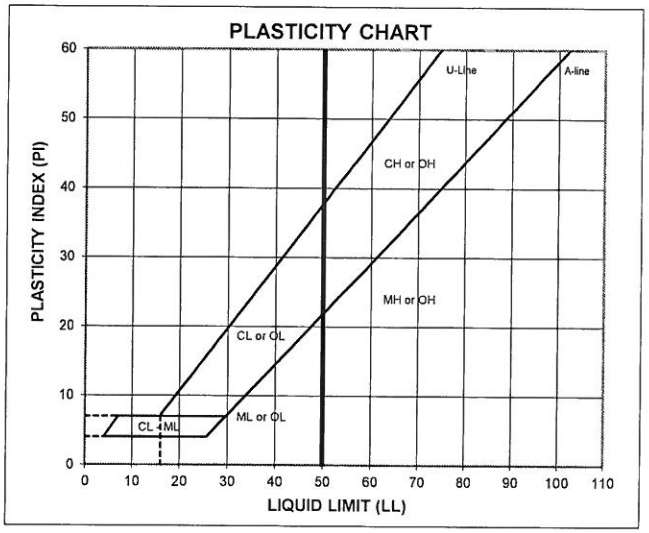
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	98.4	Coarse Gravel	1.62
0.50"	12.7	98.4		
0.375"	9.5	98.4		
#4	4.8	98.1	Fine Gravel	0.25
#10	2.00	98.0	Coarse Sand	0.14
#20	0.85	97.9		
#40	0.43	97.5	Medium Sand	0.48
#60	0.25	95.7		
#100	0.15	82.0		
#200	0.075	48.1	Fine Sand	49.44

Hydrometer Analysis

(mm)	%Finer		
0.035	23.2		
0.022	16.1		
0.013	12.5	Fines	
0.0093	10.7	Silt or Clay	48.06
0.0067	7.1		
0.0033	7.1		
0.0014	5.4		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
14.3	NP	NP	NP	NP

LL (oven-dried)	
< 0.75 = ORGANIC (OL/OH)	

DESCRIPTION: fine to coarse SAND and SILT, trace fine to coarse gravel; brownish yellow.

USCS: SM

TECH	TW/TJ
DATE	9/25/13
CHECK	aem
REVIEW	[illegible]
APPROVE	

Golder Associates Inc.

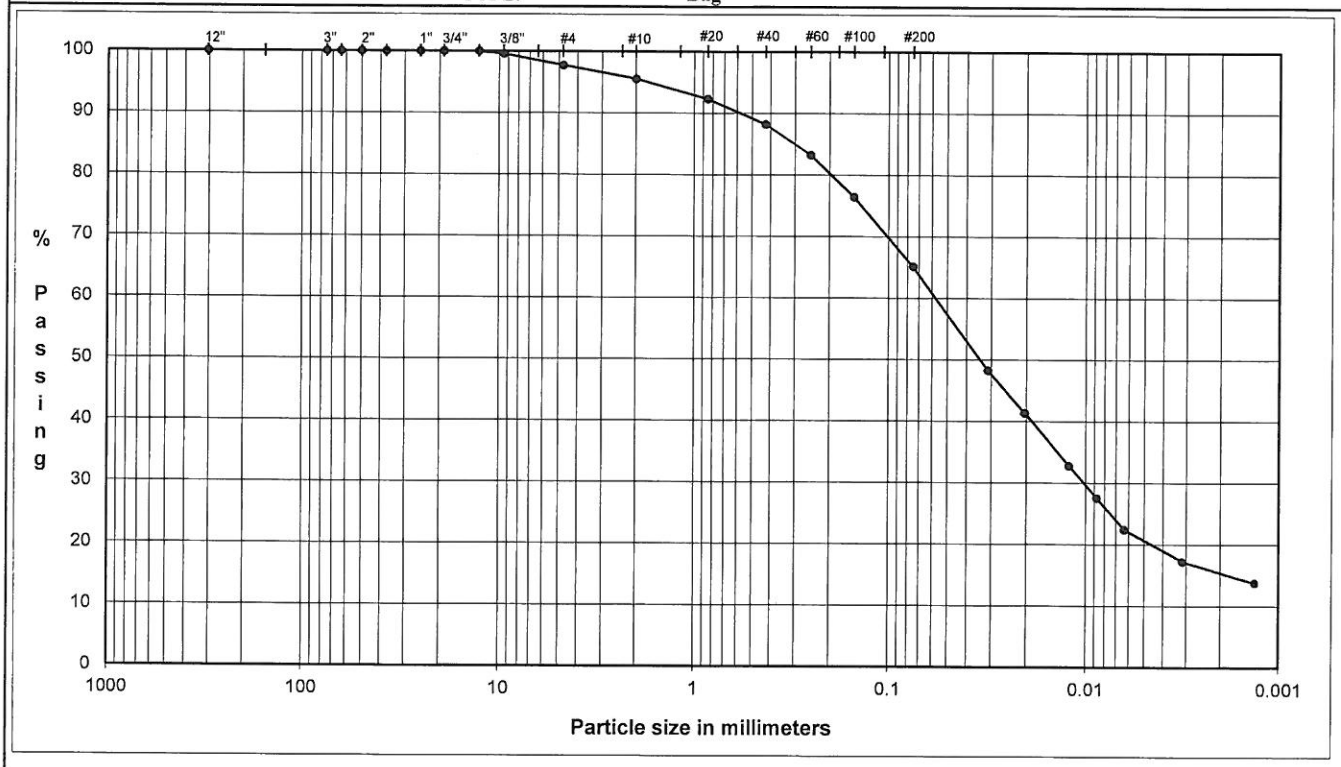
SEPTEMBER 2013

103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **MW-62** **Depth: 43.5-44.5'**
TYPE: **Bag**



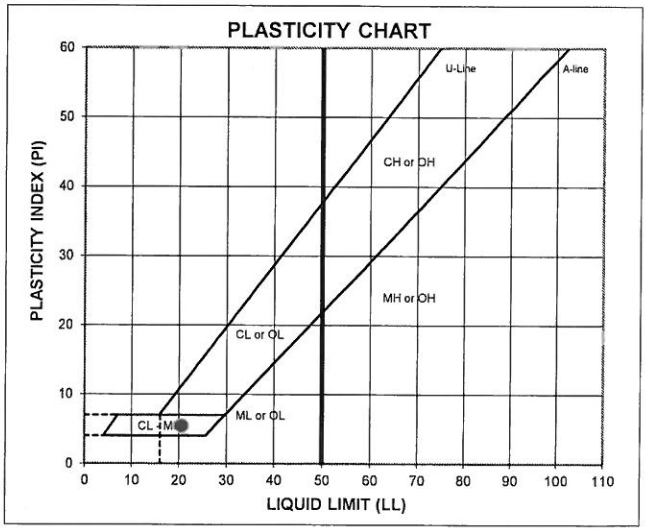
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**100.0**		
0.75"	19.0	**100.0**	Coarse Gravel	**0.00**
0.50"	12.7	**100.0**		
0.375"	9.5	**99.6**		
#4	4.8	**97.7**	Fine Gravel	**2.28**
#10	2.00	**95.5**	Coarse Sand	**2.19**
#20	0.85	**92.3**		
#40	0.43	**88.2**	Medium Sand	**7.36**
#60	0.25	**83.3**		
#100	0.15	**76.4**		
#200	0.075	**65.1**	Fine Sand	**23.04**

Hydrometer Analysis

(mm)	%Finer		
0.031	**48.3**		
0.020	**41.4**		
0.012	**32.8**	Fines	
0.0088	**27.6**	Silt or Clay	**65.13**
0.0063	**22.4**		
0.0032	**17.2**		
0.0013	**13.8**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
11.5	**20**	**15**	**5**	**-0.66**

LL (oven-dried)	
< 0.75 = ORGANIC (OL/OH)	

DESCRIPTION: sandy SILTY CLAY to CLAYEY SILT, fine to coarse, trace fine gravel; yellowish brown.

USCS: CL-ML

TECH	TJ/TW
DATE	9/24/13
CHECK	aem
REVIEW	[illegible]
APPROVE	

Golder Associates Inc.

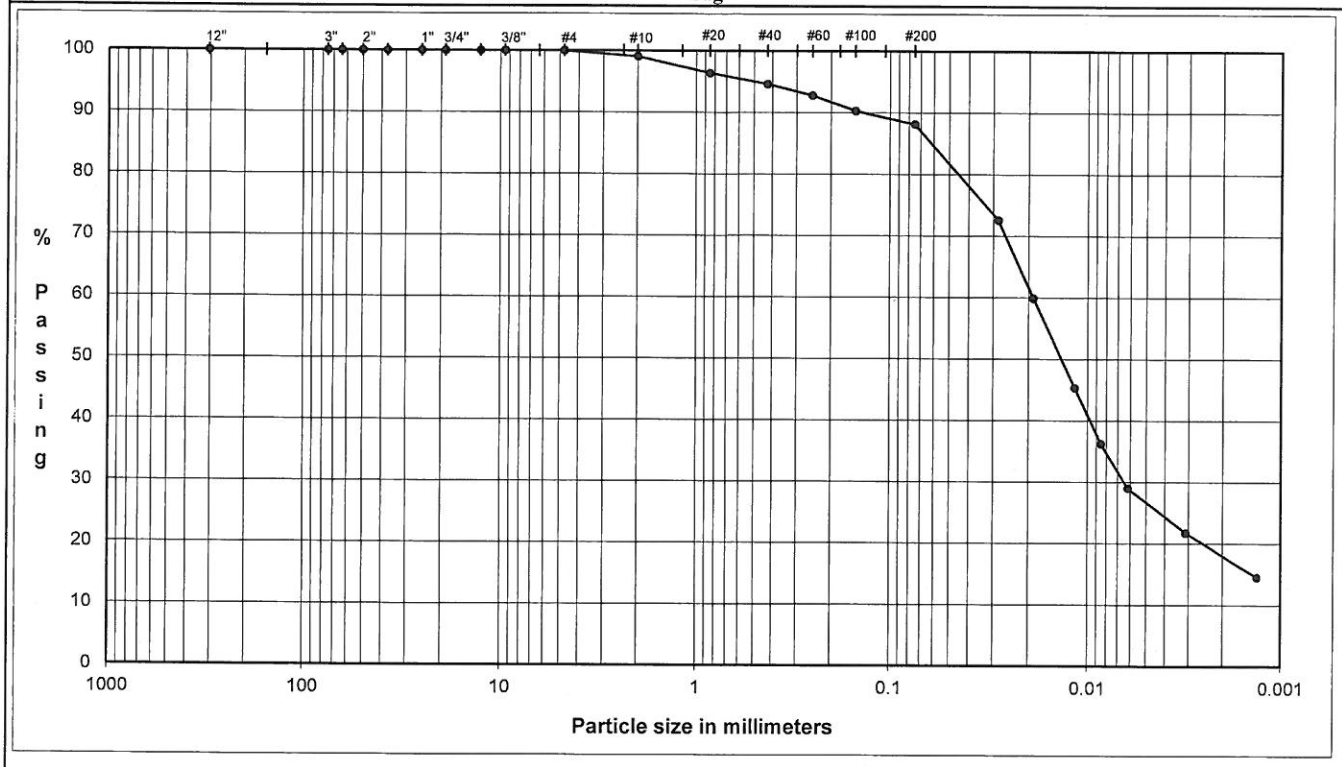
SEPTEMBER 2013

103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-62 Depth: 55.4-56.0'
TYPE: Bag



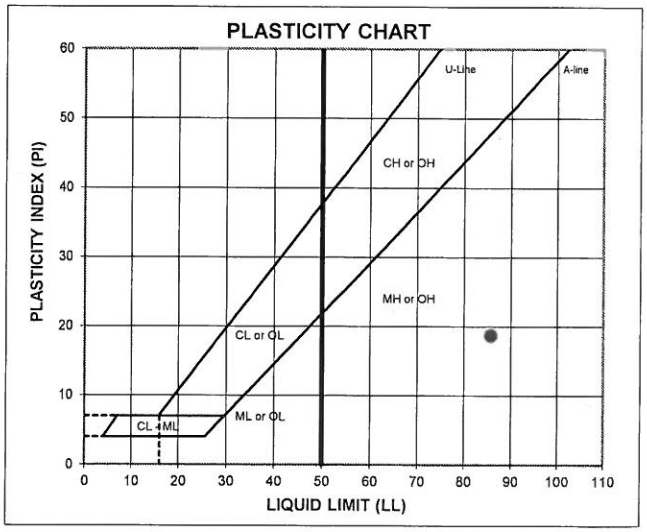
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	100.0	Coarse Gravel	0.00
0.50"	12.7	100.0		
0.375"	9.5	100.0		
#4	4.8	100.0	Fine Gravel	0.00
#10	2.00	99.0	Coarse Sand	0.96
#20	0.85	96.4		
#40	0.43	94.6	Medium Sand	4.45
#60	0.25	92.8		
#100	0.15	90.3		
#200	0.075	88.1	Fine Sand	6.46

Hydrometer Analysis

(mm)	%Finer		
0.028	72.6		
0.019	59.9		
0.012	45.4	Fines	
0.0085	36.3	Silt or Clay	88.13
0.0062	29.0		
0.0031	21.8		
0.0013	14.5		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
61.1	86	67	19	-0.32

LL (oven-dried)
< 0.75 = ORGANIC (OL/OH)

DESCRIPTION: CLAYEY SILT, some fine to coarse sand; black.

USCS: MH

TECH	TW/TJ
DATE	9/24/13
CHECK	aem
REVIEW	CWM
APPROVE	

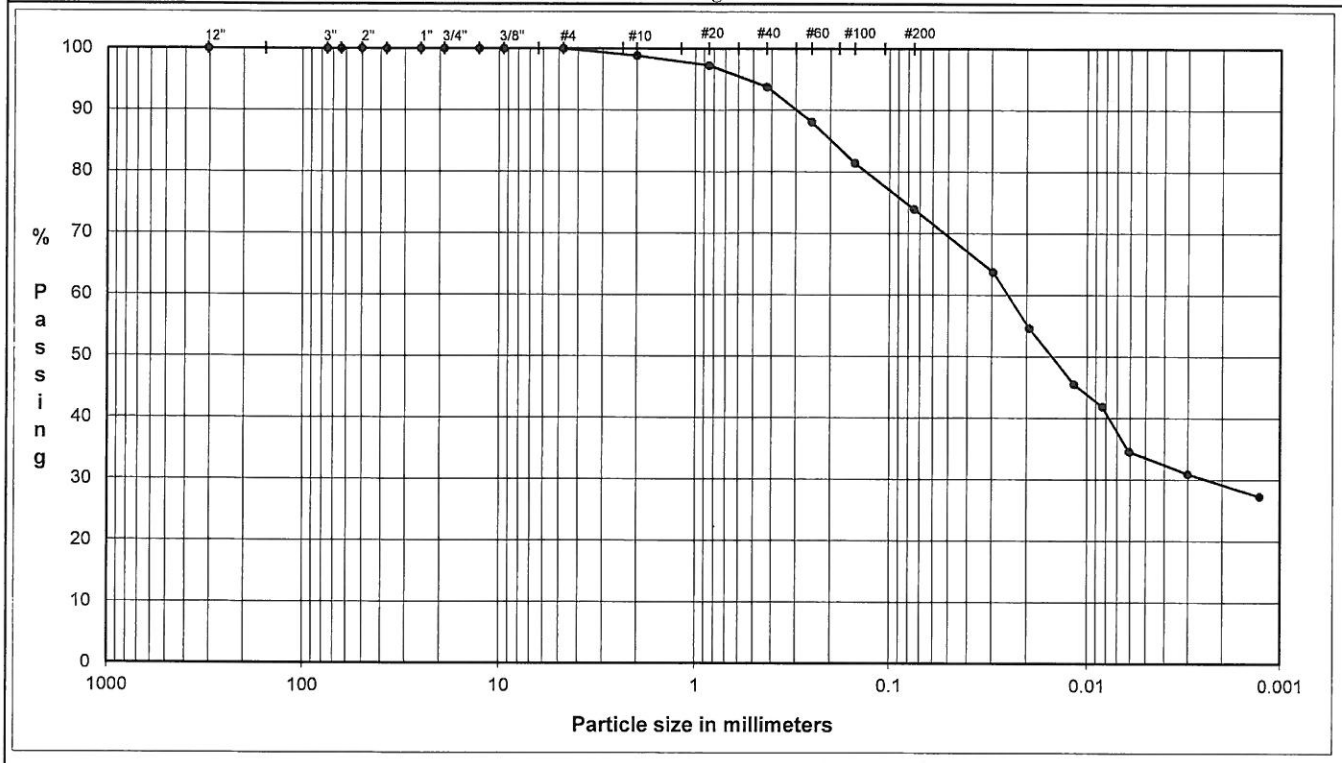
Golder Associates Inc.

SEPTEMBER 2013 103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-62 Depth: 59.0-60.0'
TYPE: Bag



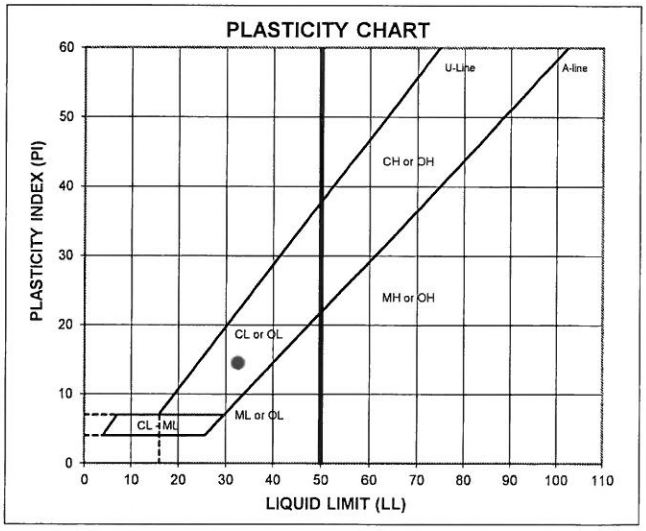
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	100.0	Coarse Gravel	0.00
0.50"	12.7	100.0		
0.375"	9.5	100.0		
#4	4.8	100.0	Fine Gravel	0.00
#10	2.00	98.8	Coarse Sand	1.17
#20	0.85	97.2		
#40	0.43	93.8	Medium Sand	5.06
#60	0.25	88.1		
#100	0.15	81.4		
#200	0.075	74.0	Fine Sand	19.82

Hydrometer Analysis

(mm)	%Finer		
0.030	63.8		
0.019	54.6		
0.012	45.5	Fines	
0.0084	41.9	Silt or Clay	73.95
0.0061	34.6		
0.0030	31.0		
0.0013	27.3		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
15.6	33	18	15	-0.20

LL (oven-dried) / LL (oven-dried) × 0.75 = ORGANIC (OL/OH)

DESCRIPTION: sandy SILTY CLAY, fine to coarse; dark gray.

USCS: CL

TECH	TW/TJ
DATE	9/24/13
CHECK	aem
REVIEW	CWM
APPROVE	

Golder Associates Inc.

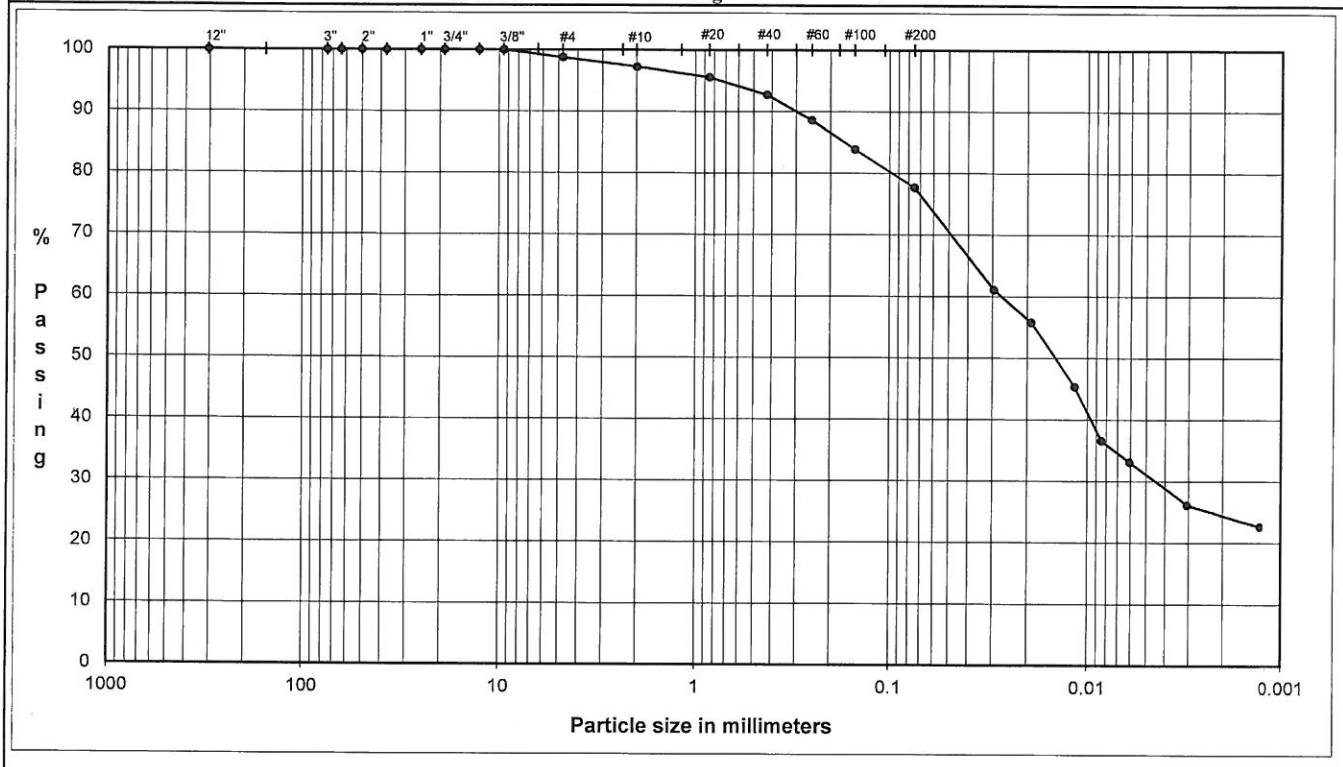
SEPTEMBER 2013

103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-62 Depth: 69.0-70.0'
TYPE: Bag



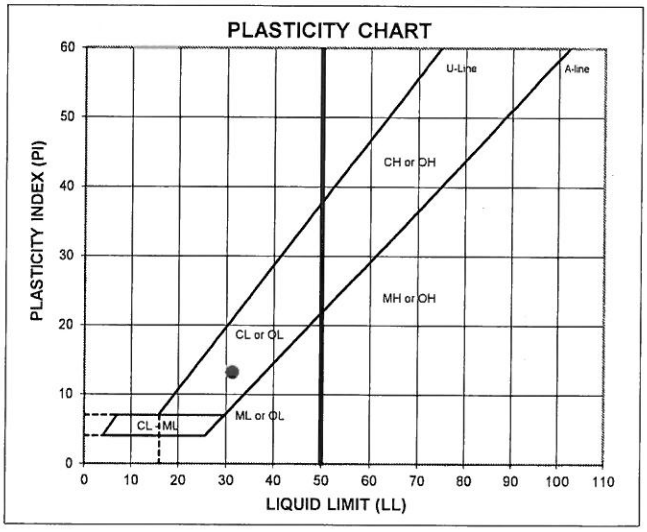
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	100.0	Coarse Gravel	0.00
0.50"	12.7	100.0		
0.375"	9.5	100.0		
#4	4.8	98.7	Fine Gravel	1.27
#10	2.00	97.3	Coarse Sand	1.47
#20	0.85	95.6		
#40	0.43	92.7	Medium Sand	4.57
#60	0.25	88.6		
#100	0.15	83.9		
#200	0.075	77.7	Fine Sand	14.99

Hydrometer Analysis

(mm)	%Finer		
0.030	61.1		
0.019	55.8		
0.012	45.4	Fines	
0.0085	36.6	Silt or Clay	77.70
0.0061	33.2		
0.0031	26.2		
0.0013	22.7		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
17.1	31	18	13	-0.05

LL (oven-dried) / < 0.75 = ORGANIC (OL/OH)

DESCRIPTION: sandy SILTY CLAY, fine to coarse, trace fine gravel; gray.

USCS: CL

TECH	TW/TJ
DATE	9/25/13
CHECK	aem
REVIEW	MN
APPROVE	

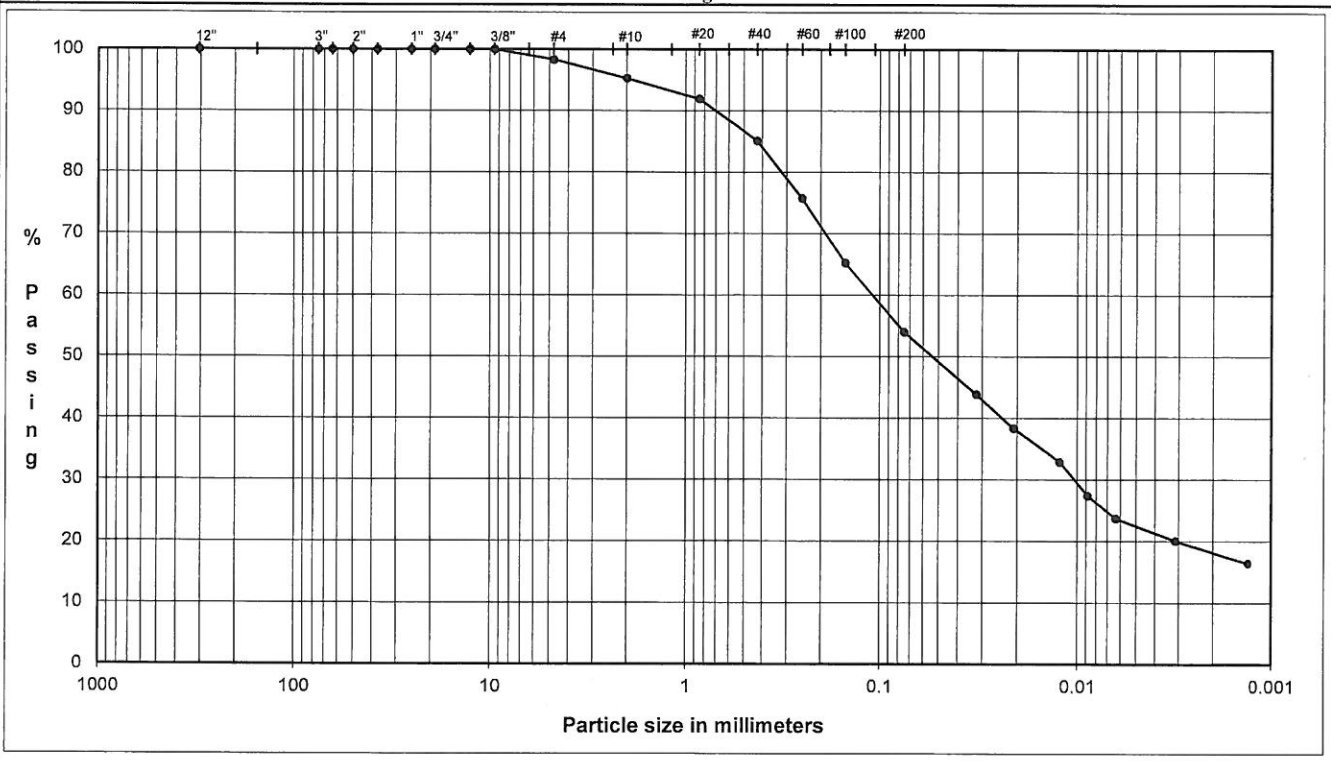
Golder Associates Inc.

SEPTEMBER 2013 103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-63 Depth: 14.0-14.5'
TYPE: Bag



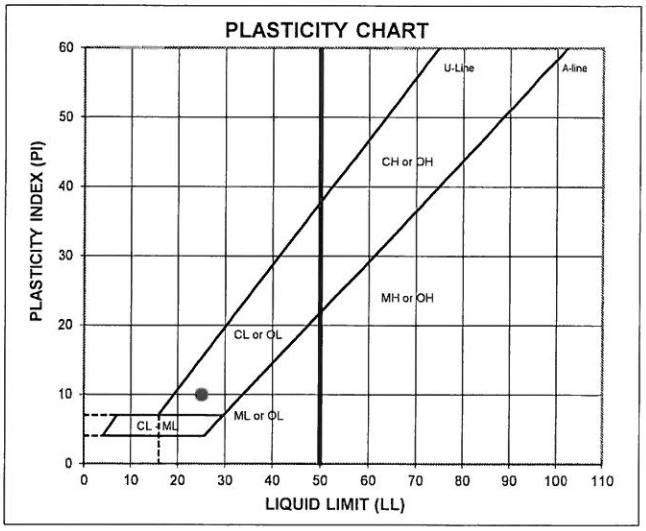
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	100.0	Coarse Gravel	0.00
0.50"	12.7	100.0		
0.375"	9.5	100.0		
#4	4.8	98.3	Fine Gravel	1.71
#10	2.00	95.2	Coarse Sand	3.05
#20	0.85	91.9		
#40	0.43	85.1	Medium Sand	10.17
#60	0.25	75.7		
#100	0.15	65.2		
#200	0.075	54.0	Fine Sand	31.05

Hydrometer Analysis

(mm)	%Finer		
0.032	43.8		
0.021	38.4		
0.012	32.9	Fines	
0.0089	27.4	Silt or Clay	54.01
0.0063	23.7		
0.0031	20.1		
0.0013	16.4		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
14.9	25	15	10	-0.01

LL (oven-dried) < 0.75 = ORGANIC (OL/OH)

DESCRIPTION: SILTY CLAY and fine to coarse SAND, trace fine gravel; gray.

USCS: CL

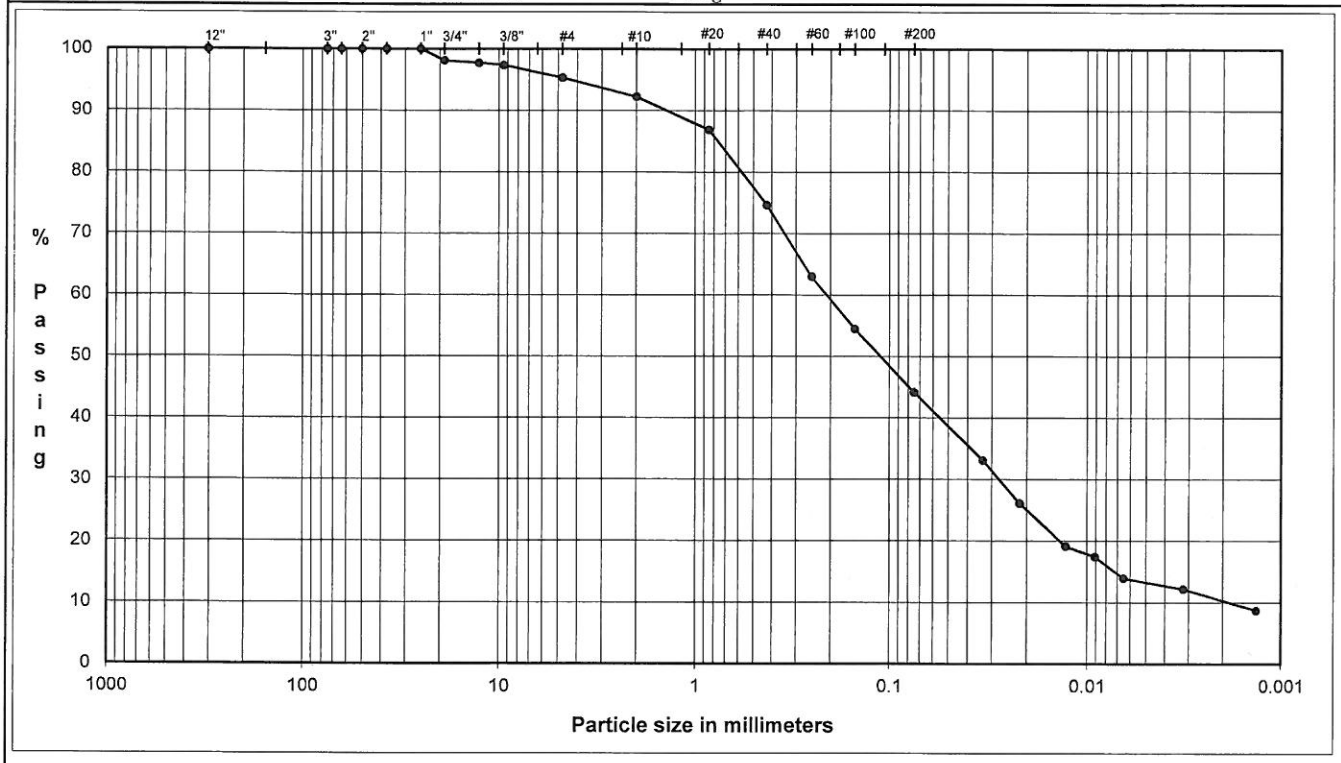
TECH	TJ
DATE	9/25/13
CHECK	aem
REVIEW	[illegible]
APPROVE	

Golder Associates Inc.

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-63 Depth: 30.0-31.0'
TYPE: Bag



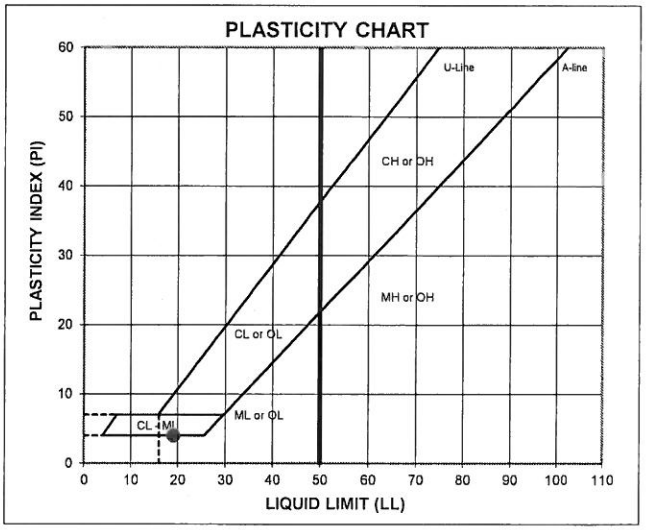
COBBLES	GRAVEL		SAND			FINES
	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	98.1	Coarse Gravel	1.90
0.50"	12.7	97.7		
0.375"	9.5	97.4		
#4	4.8	95.3	Fine Gravel	2.79
#10	2.00	92.2	Coarse Sand	3.06
#20	0.85	86.9		
#40	0.43	74.6	Medium Sand	17.64
#60	0.25	63.0		
#100	0.15	54.5		
#200	0.075	44.2	Fine Sand	30.45

Hydrometer Analysis

(mm)	%Finer		
0.033	33.1		
0.022	26.1		
0.013	19.2	Fines	
0.0091	17.4	Silt or Clay	44.16
0.0065	13.9		
0.0032	12.2		
0.0014	8.7		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
11.8	19	15	4	-0.90

LL (oven-dried) < 0.75 = ORGANIC (OL/OH)

DESCRIPTION: fine to coarse SAND and SILTY CLAY to CLAYEY SILT, trace fine to coarse gravel; yellowish brown.

USCS: SC-SM

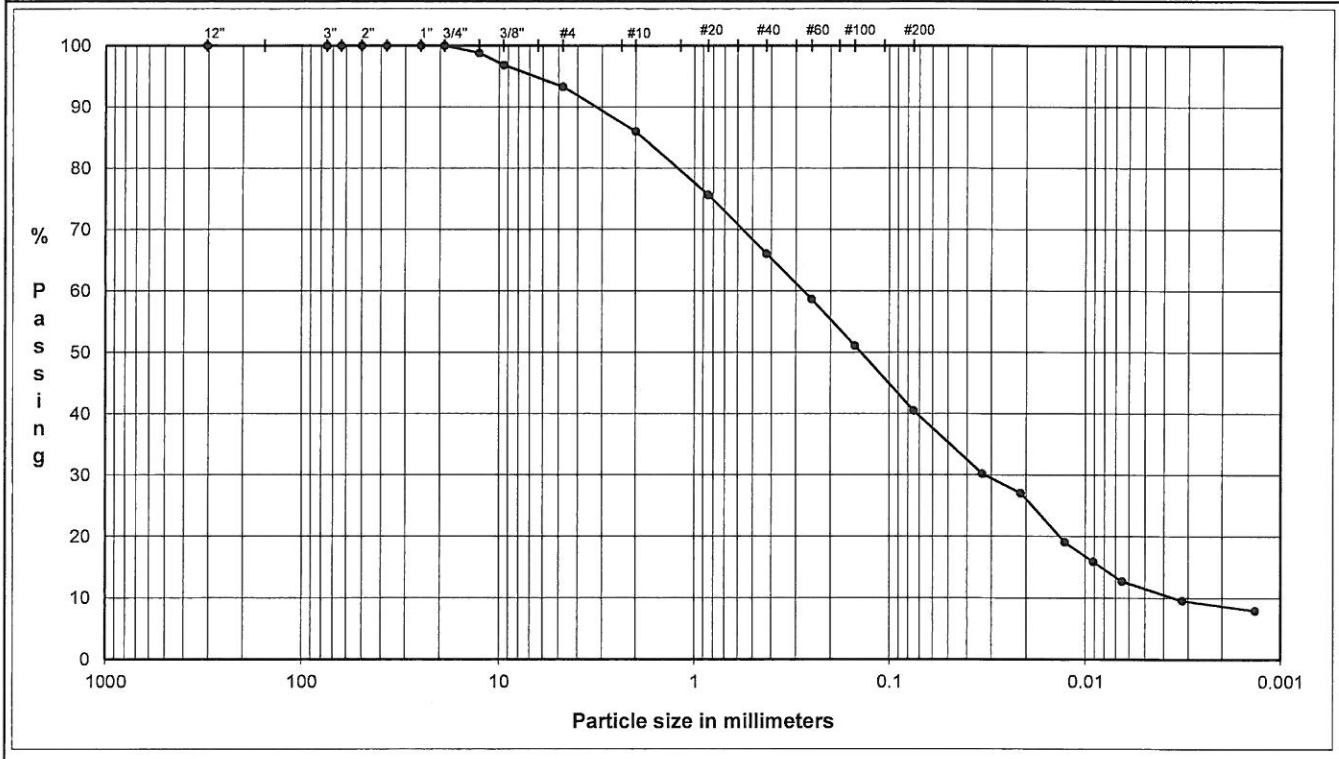
TECH	AM/TJ
DATE	9/25/13
CHECK	aem
REVIEW	
APPROVE	

SEPTEMBER 2013 103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-63 Depth: 34.0-35.0'
TYPE: Bag



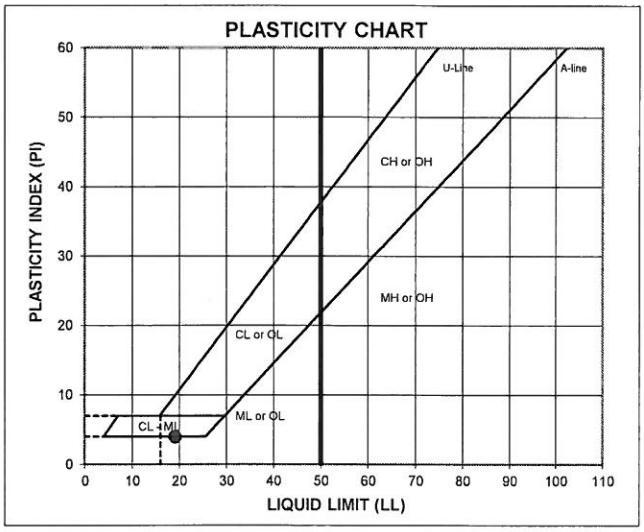
	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
COBBLES	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	100.0	Coarse Gravel	0.00
0.50"	12.7	98.8		
0.375"	9.5	96.9		
#4	4.8	93.3	Fine Gravel	6.74
#10	2.00	86.0	Coarse Sand	7.26
#20	0.85	75.7		
#40	0.43	66.1	Medium Sand	19.92
#60	0.25	58.7		
#100	0.15	51.1		
#200	0.075	40.5	Fine Sand	25.54

Hydrometer Analysis

(mm)	%Finer		
0.033	30.3		
0.021	27.1		
0.013	19.1	Fines	
0.0091	15.9	Silt or Clay	40.54
0.0065	12.7		
0.0032	9.6		
0.0014	8.0		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
8.4	19	15	4	-1.72

LL (oven-dried)	
< 0.75 = ORGANIC (OL/OH)	

DESCRIPTION: fine to coarse SAND and SILTY CLAY to CLAYEY SILT, some fine gravel; yellowish brown.

USCS: SC-SM

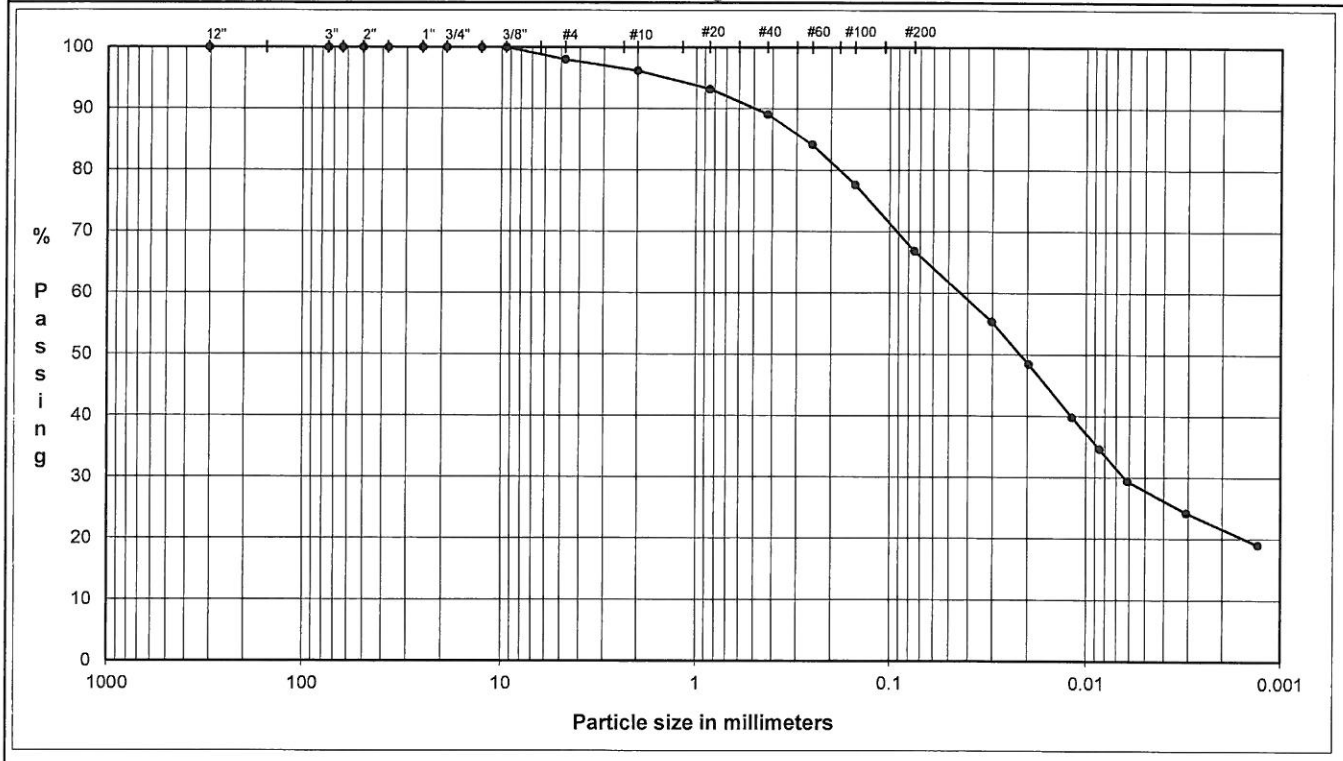
TECH	TW/TJ
DATE	9/24/13
CHECK	
REVIEW	
APPROVE	

SEPETMBER 2013 103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

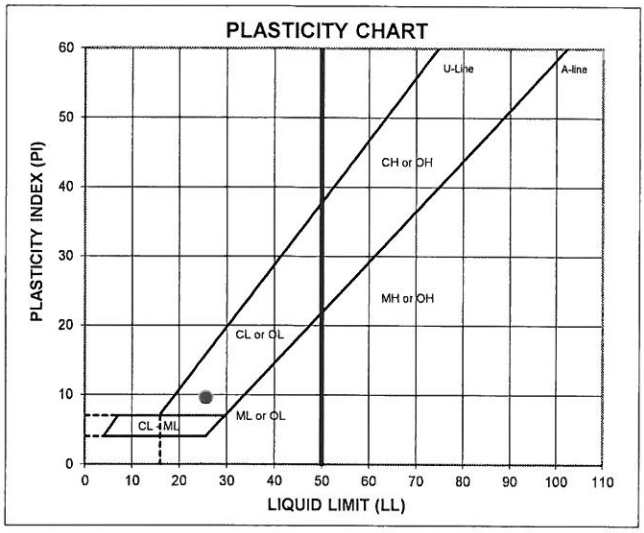
PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-63 Depth: 43.5-44.5'
TYPE: Bag



COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	100.0	Coarse Gravel	0.00
0.50"	12.7	100.0		
0.375"	9.5	100.0		
#4	4.8	98.0	Fine Gravel	1.99
#10	2.00	96.2	Coarse Sand	1.82
#20	0.85	93.2		
#40	0.43	89.1	Medium Sand	7.10
#60	0.25	84.2		
#100	0.15	77.6		
#200	0.075	66.9	Fine Sand	22.22



Hydrometer Analysis

(mm)	%Finer		
0.030	55.4		
0.020	48.5		
0.012	39.8	Fines	
0.0085	34.6	Silt or Clay	66.87
0.0062	29.4		
0.0031	24.2		
0.0013	19.1		

ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
11.2	26	16	10	-0.47

LL (oven-dried) / 0.75 = ORGANIC (OL/OH)

DESCRIPTION: sandy SILTY CLAY, fine to coarse, trace fine gravel; brownish yellow.

USCS: CL

TECH	TW/TJ
DATE	9/24/13
CHECK	aem
REVIEW	[illegible]
APPROVE	

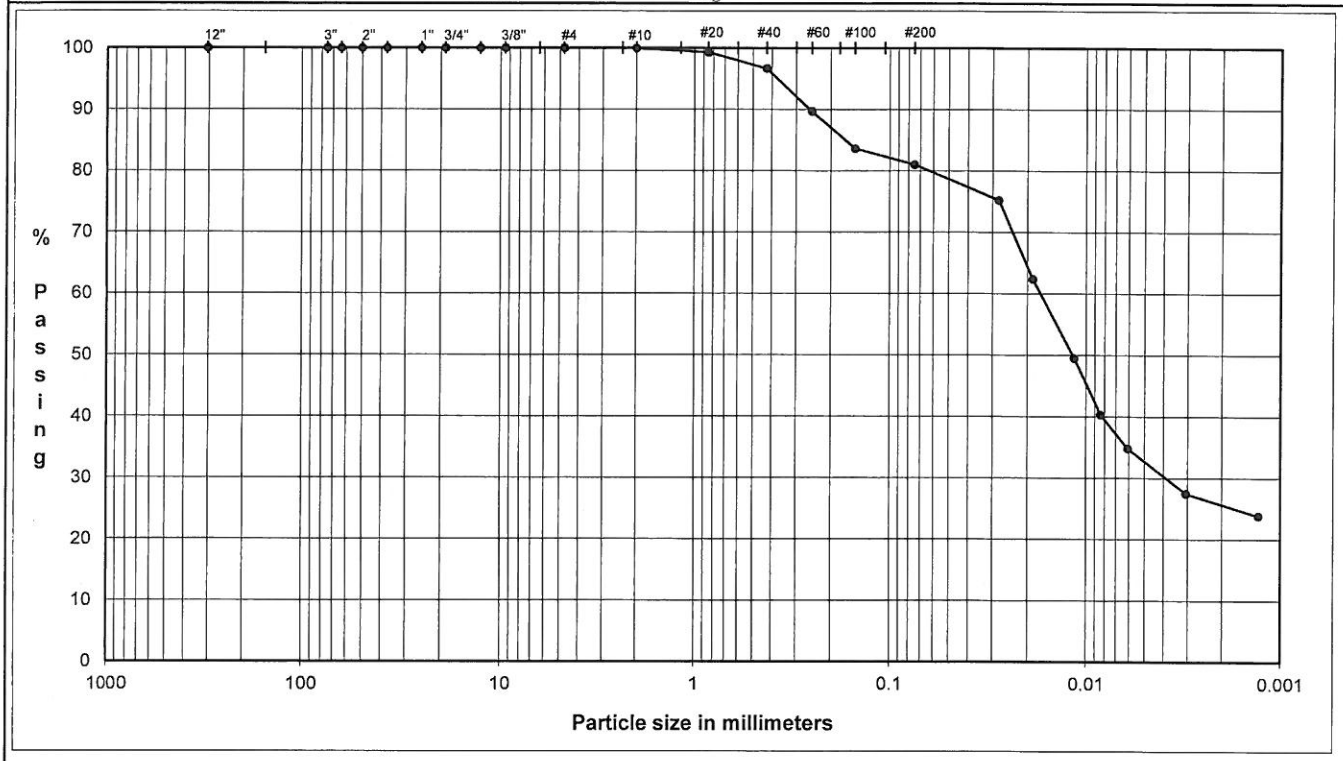
Golder Associates Inc.

SEPETMBER 2013 103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: **ELECTROLUX/JEFFERSON PLANT/IA**
SAMPLE ID: **MW-63** **Depth: 47.9-48.5'**
TYPE: **Bag**



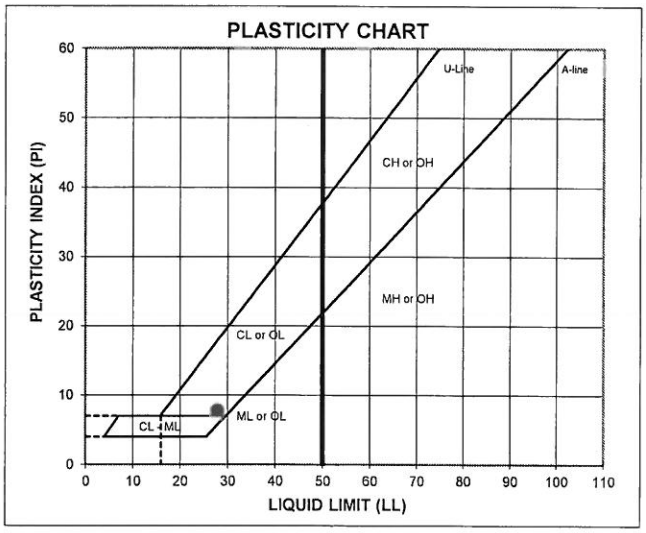
	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
COBBLES	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	**100.0**		
3.0"	75.0	**100.0**	Cobbles	**0.00**
2.5"	63.5	**100.0**		
2.0"	50.0	**100.0**		
1.5"	37.5	**100.0**		
1.0"	25.0	**100.0**		
0.75"	19.0	**100.0**	Coarse Gravel	**0.00**
0.50"	12.7	**100.0**		
0.375"	9.5	**100.0**		
#4	4.8	**100.0**	Fine Gravel	**0.00**
#10	2.00	**99.9**	Coarse Sand	**0.06**
#20	0.85	**99.3**		
#40	0.43	**96.7**	Medium Sand	**3.29**
#60	0.25	**89.7**		
#100	0.15	**83.6**		
#200	0.075	**81.0**	Fine Sand	**15.64**

Hydrometer Analysis

(mm)	%Finer		
0.028	**75.2**		
0.019	**62.4**		
0.012	**49.6**	Fines	
0.0084	**40.4**	Silt or Clay	**81.02**
0.0061	**34.9**		
0.0031	**27.5**		
0.0013	**23.9**		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
20.8	**28**	**20**	**8**	**0.15**

LL (oven-dried) / LL (oven-dried) ÷ 0.75 = ORGANIC (OL/OH)

DESCRIPTION: sandy SILTY CLAY, fine to coarse; dark brown.

USCS: CL

TECH	TW/TJ
DATE	9/24/13
CHECK	aem
REVIEW	
APPROVE	

Golder Associates Inc.

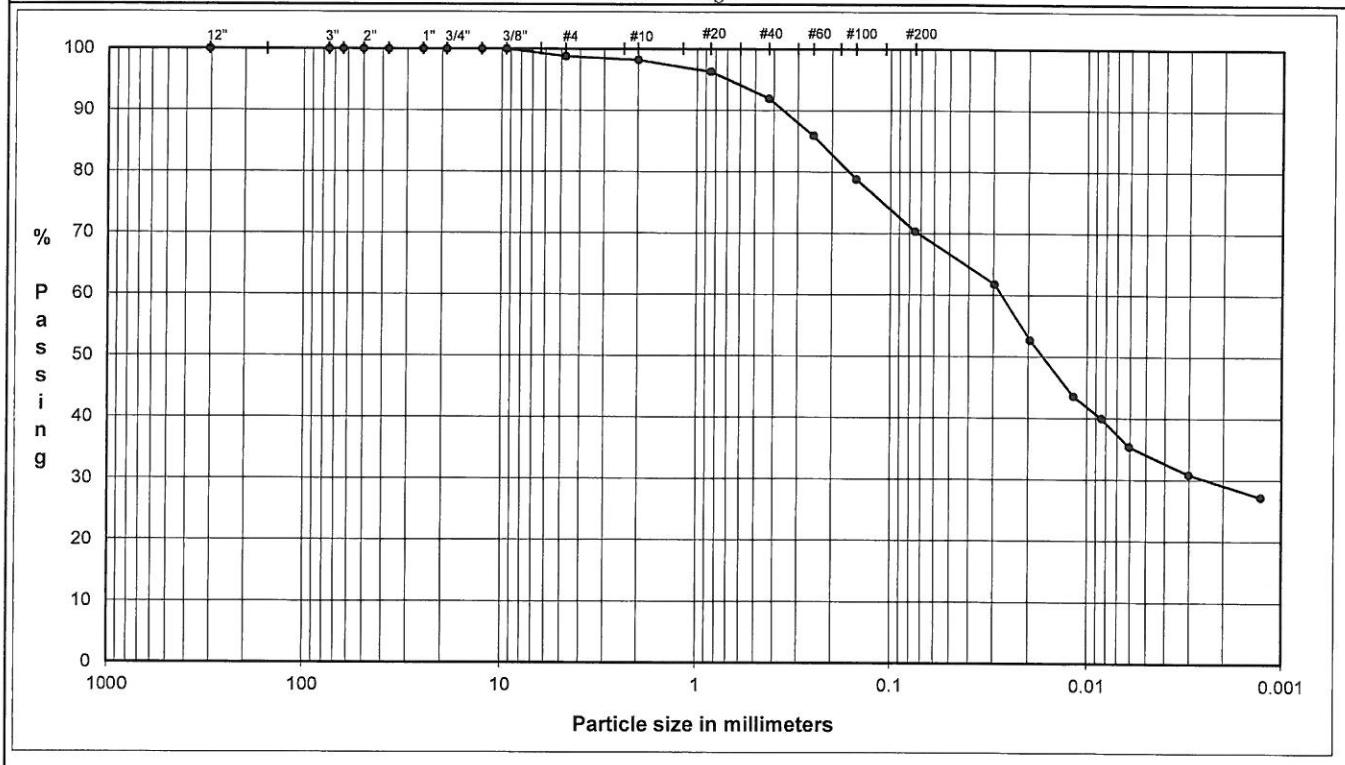
SEPTEMBER 2013

103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-63 Depth: 59.7-60.2'
TYPE: Bag



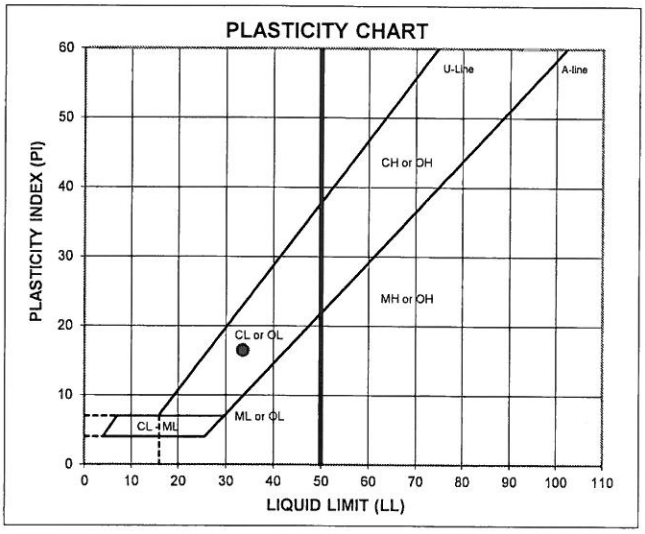
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	100.0	Coarse Gravel	0.00
0.50"	12.7	100.0		
0.375"	9.5	100.0		
#4	4.8	98.8	Fine Gravel	1.19
#10	2.00	98.2	Coarse Sand	0.60
#20	0.85	96.3		
#40	0.43	92.0	Medium Sand	6.25
#60	0.25	85.9		
#100	0.15	78.8		
#200	0.075	70.3	Fine Sand	21.61

Hydrometer Analysis

(mm)	%Finer		
0.030	61.8		
0.020	52.7		
0.012	43.6	Fines	
0.0084	40.0	Silt or Clay	70.34
0.0061	35.4		
0.0030	30.9		
0.0013	27.3		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
14.1	34	17	17	-0.19

LL (oven-dried) / < 0.75 = ORGANIC (OL/OH)

DESCRIPTION: sandy SILTY CLAY, fine to coarse, trace fine gravel; dark brown.

USCS: CL

TECH	TW/TJ
DATE	9/24/13
CHECK	
REVIEW	
APPROVE	

Golder Associates Inc.

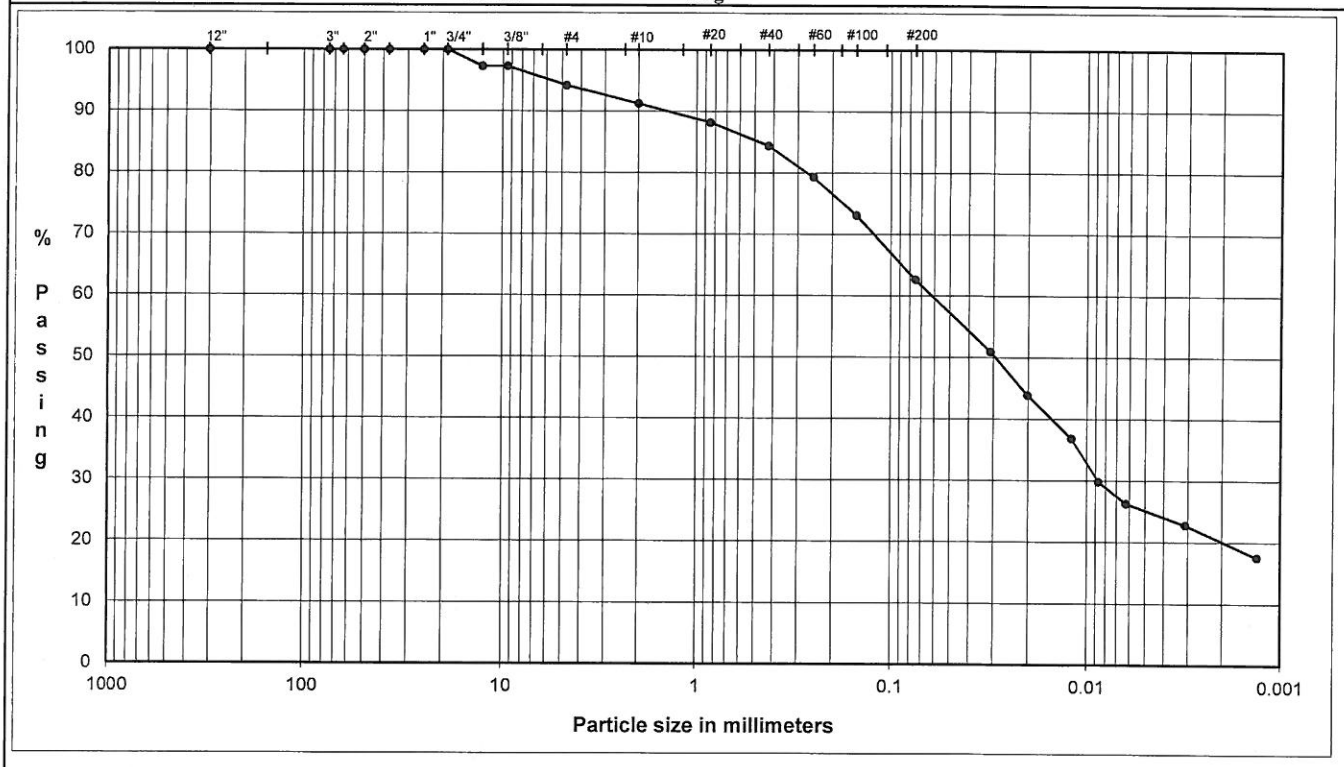
SEPTEMBER 2013

103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-65 Depth: 54.5-55.0'
TYPE: Bag



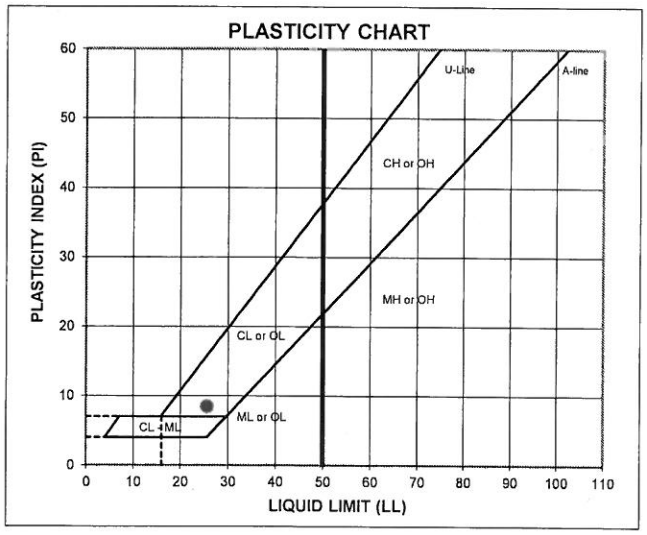
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	100.0	Coarse Gravel	0.00
0.50"	12.7	97.3		
0.375"	9.5	97.3		
#4	4.8	94.2	Fine Gravel	5.81
#10	2.00	91.2	Coarse Sand	2.95
#20	0.85	88.2		
#40	0.43	84.4	Medium Sand	6.85
#60	0.25	79.3		
#100	0.15	73.1		
#200	0.075	62.6	Fine Sand	21.78

Hydrometer Analysis

(mm)	%Finer		
0.031	50.9		
0.020	43.9		
0.012	36.9	Fines	
0.0087	29.9	Silt or Clay	62.62
0.0063	26.3		
0.0031	22.8		
0.0013	17.6		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
11.2	26	17	9	-0.74

LL (oven-dried) / < 0.75 = ORGANIC (OL/OH)

DESCRIPTION: sandy SILTY CLAY, fine to coarse, some fine gravel; dark gray.

USCS: CL

TECH	AM/TJ
DATE	9/25/13
CHECK	
REVIEW	
APPROVE	

Golder Associates Inc.

ELECTROLUX/JEFFERSON PLANT/IA
SUMMARY OF SOIL DATA

Sample Identification	Sample Type	Sample Depth	Soil Classi-fication	As R'cd Moisture %	Atterberg Limits				Grain Size Distribution			Compaction		Gs	Unit Weight		Permeability (cm/sec)	Additional Tests Conducted (See Notes)
					L.L.	P.L.	P.I.	L.I.	% Finer No. 4 Sieve	% Finer No. 200 Sieve	% Finer .005 mm	Maximum Dry Density (lb/cuft)	Optimum Moisture %		Moisture %	Dry (lb/cuft)		
MW-65	Bag	68.0-69.0'	CL	17.4	36	21	15	-0.26	99.5	84.3	38.5	-	-	-	-	-	-	-

ABBREVIATIONS: LIQUID LIMIT (LL)
PLASTIC LIMIT (PL)
PLASTICITY INDEX (PI)
LIQUIDITY INDEX (LI)
SPECIFIC GRAVITY (Gs)
MOISTURE (Mc)

NOTES: T = TRIAXIAL TEST
U = UNCONFINED COMPRESSION TEST
C = CONSOLIDATION TEST
DS = DIRECT SHEAR TEST
O = ORGANIC CONTENT
P = pH

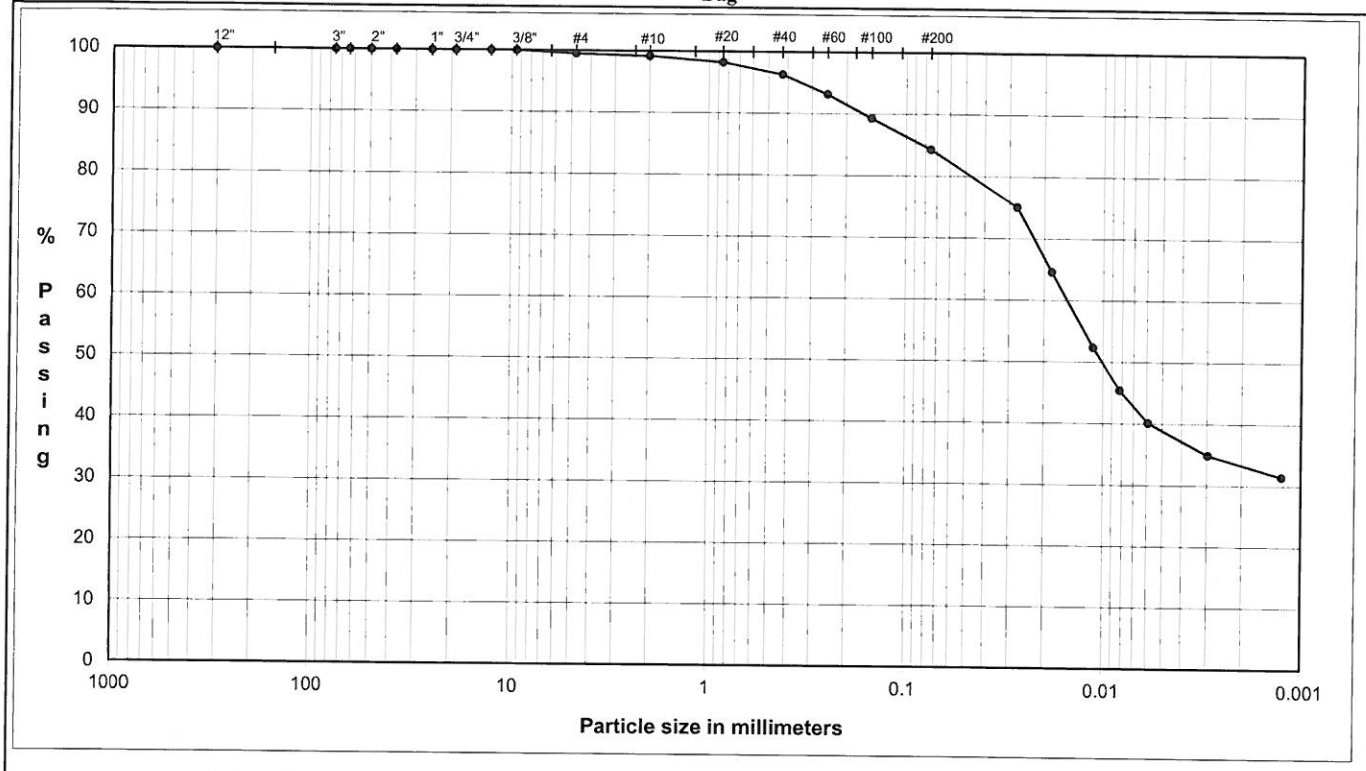
SEPTEMBER 2013

103-87305

PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS

ASTM D421, D422, D4318

PROJECT NAME: ELECTROLUX/JEFFERSON PLANT/IA
SAMPLE ID: MW-65 Depth: 68.0-69.0'
TYPE: Bag



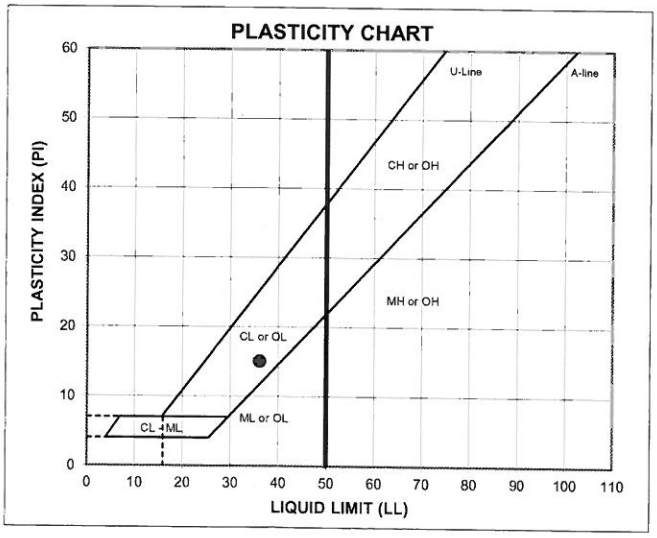
COBBLES	Coarse	Fine	Coarse	Medium	Fine	Silt or Clay
	GRAVEL		SAND			FINES

U.S. Standard Sieves Sizes and Numbers

	Particle Size (mm)	% Passing	Particle Size Classification	Percentage
12.0"	304.8	100.0		
3.0"	75.0	100.0	Cobbles	0.00
2.5"	63.5	100.0		
2.0"	50.0	100.0		
1.5"	37.5	100.0		
1.0"	25.0	100.0		
0.75"	19.0	100.0	Coarse Gravel	0.00
0.50"	12.7	100.0		
0.375"	9.5	100.0		
#4	4.8	99.5	Fine Gravel	0.48
#10	2.00	99.2	Coarse Sand	0.33
#20	0.85	98.3		
#40	0.43	96.3	Medium Sand	2.86
#60	0.25	93.2		
#100	0.15	89.3		
#200	0.075	84.3	Fine Sand	12.05

Hydrometer Analysis

(mm)	%Finer		
0.028	75.1		
0.018	64.6		
0.011	52.4	Fines	
0.0082	45.4	Silt or Clay	84.27
0.0059	40.2		
0.0030	34.9		
0.0013	31.4		



ATTERBERG LIMITS

Method -B (Dry preparation)

M_c	LL	PL	PI	LI
17.4	36	21	15	-0.26

LL (oven-dried) / < 0.75 - ORGANIC (OL/OH)

DESCRIPTION: sandy SILTY CLAY, fine to coarse, trace fine gravel; dark gray.

USCS: CL

TECH	TJ/TW
DATE	9/24/13
CHECK	aem
REVIEW	
APPROVE	

Golder Associates Inc.

APPENDIX G
SLUG TEST DATA

RISING HEAD TEST MW-05

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-05	
DATE	5/2/2012	
INITIAL DEPTH TO WATER	5.77	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	3.11	FEET (btoc)
BOTTOM OF OPEN INTERVAL	8.11	FEET (btoc)
SATURATED THICKNESS	2.34	FEET
WATER TABLE TO BOTTOM OF SCREEN	2.34	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	2.34	FEET
STATIC IN SCREEN?	Y	
MAX. HEAD CHANGE	2.34	FEET
MAX. HEAD IN SCREEN?	N	

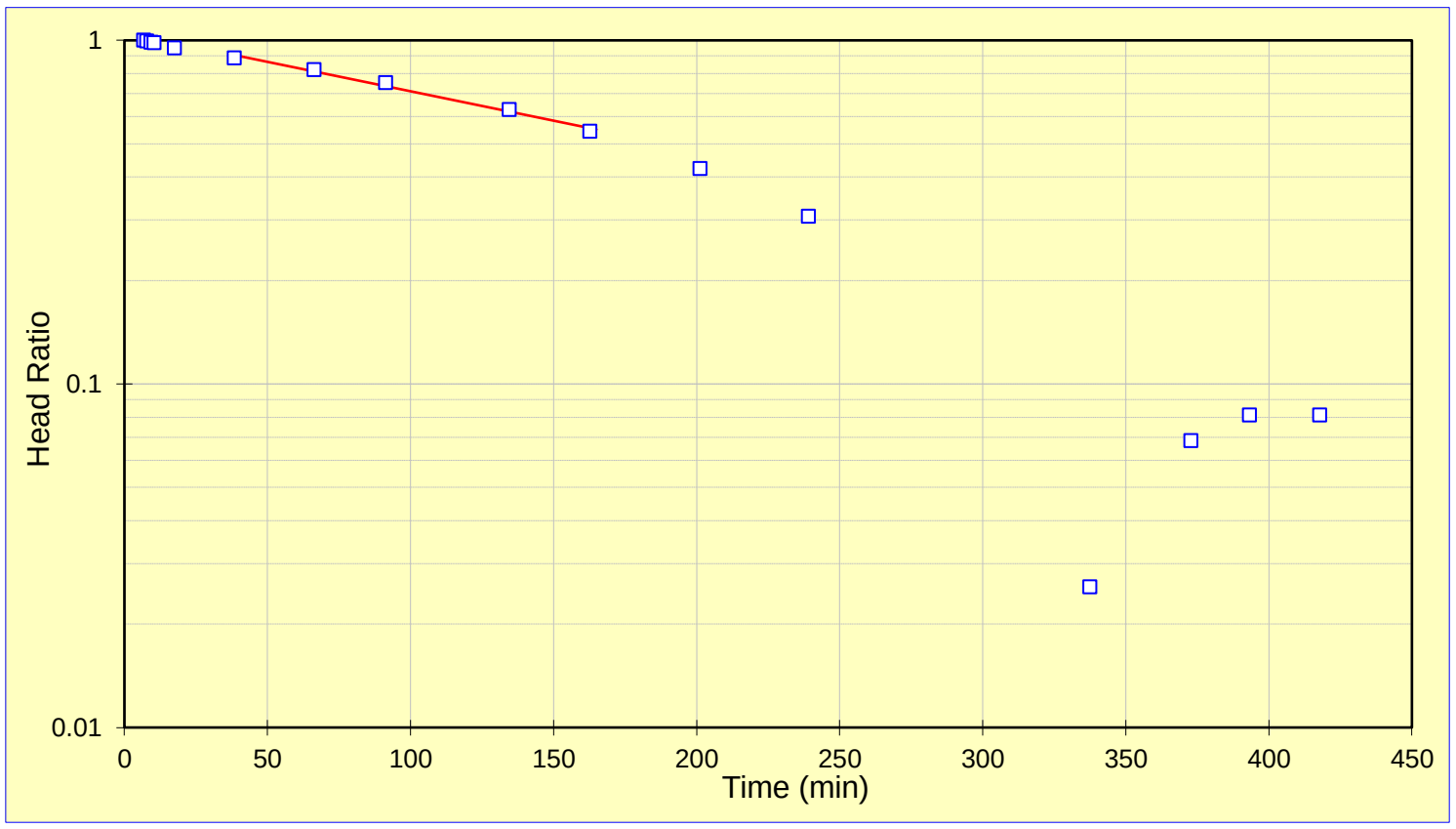
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
0.0	6.26	0.000	0.000	0.00
6.7	3.92	6.667	2.340	1.00
7.8	3.93	7.833	2.330	1.00
9.3	3.95	9.333	2.310	0.99
10.3	3.96	10.333	2.300	0.98
17.5	4.04	17.500	2.220	0.95
38.3	4.18	38.333	2.080	0.89
66.3	4.34	66.333	1.920	0.82
91.3	4.5	91.333	1.760	0.75
134.5	4.79	134.500	1.470	0.63
162.7	4.99	162.667	1.270	0.54
201.3	5.27	201.250	0.990	0.42
239.1	5.54	239.083	0.720	0.31
337.5	6.32	337.500	0.060	0.03
372.8	6.42	372.833	0.160	0.07
393.2	6.45	393.167	0.190	0.08
417.8	6.45	417.833	0.190	0.08

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-05

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
R_e =	0.14			
L_e =	2.34	K=	1.00E-05	cm/sec
t_1 =	40	K=	2.84E-02	ft/day
t_2 =	165			
h_1/h_0 =	0.90			
h_2/h_0 =	0.55			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/02/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

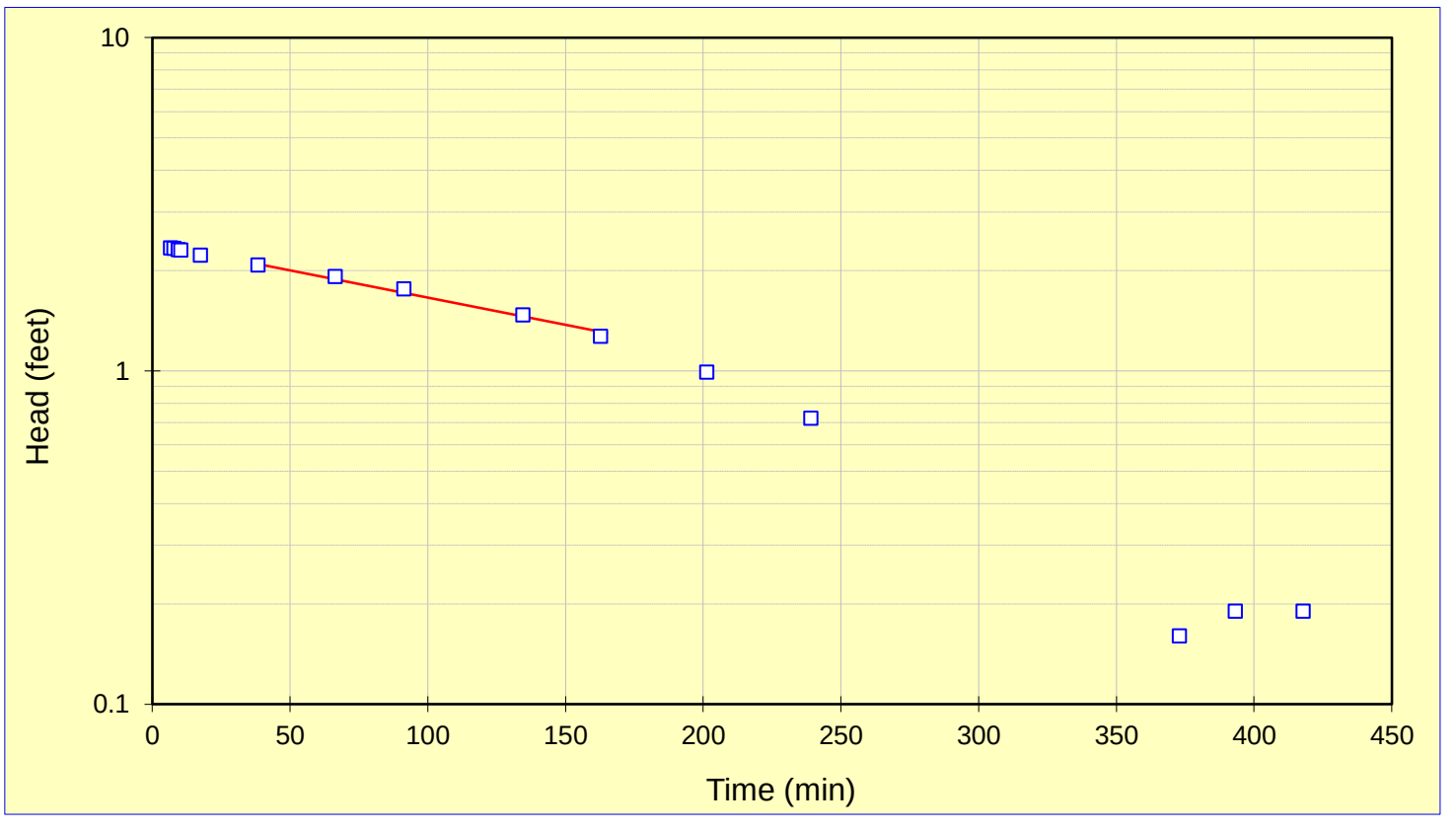
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-05

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
r_w =	0.14			
L_e =	2.34	K=	6.73E-06	cm/sec
$\ln(R_e/r_w)$=	2.13	K=	1.91E-02	ft/day
y_0 =	2.33			
y_t =	1.300			
t =	165.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/02/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

RISING HEAD TEST MW-06

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-06	
DATE	5/1/2012	
INITIAL DEPTH TO WATER	4.78	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	4.48	FEET (btoc)
BOTTOM OF OPEN INTERVAL	9.48	FEET (btoc)
SATURATED THICKNESS	4.7	FEET
WATER TABLE TO BOTTOM OF SCREEN	4.7	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	4.7	FEET
STATIC IN SCREEN?	Y	
MAX. HEAD CHANGE	4.64	FEET
MAX. HEAD IN SCREEN?	N	

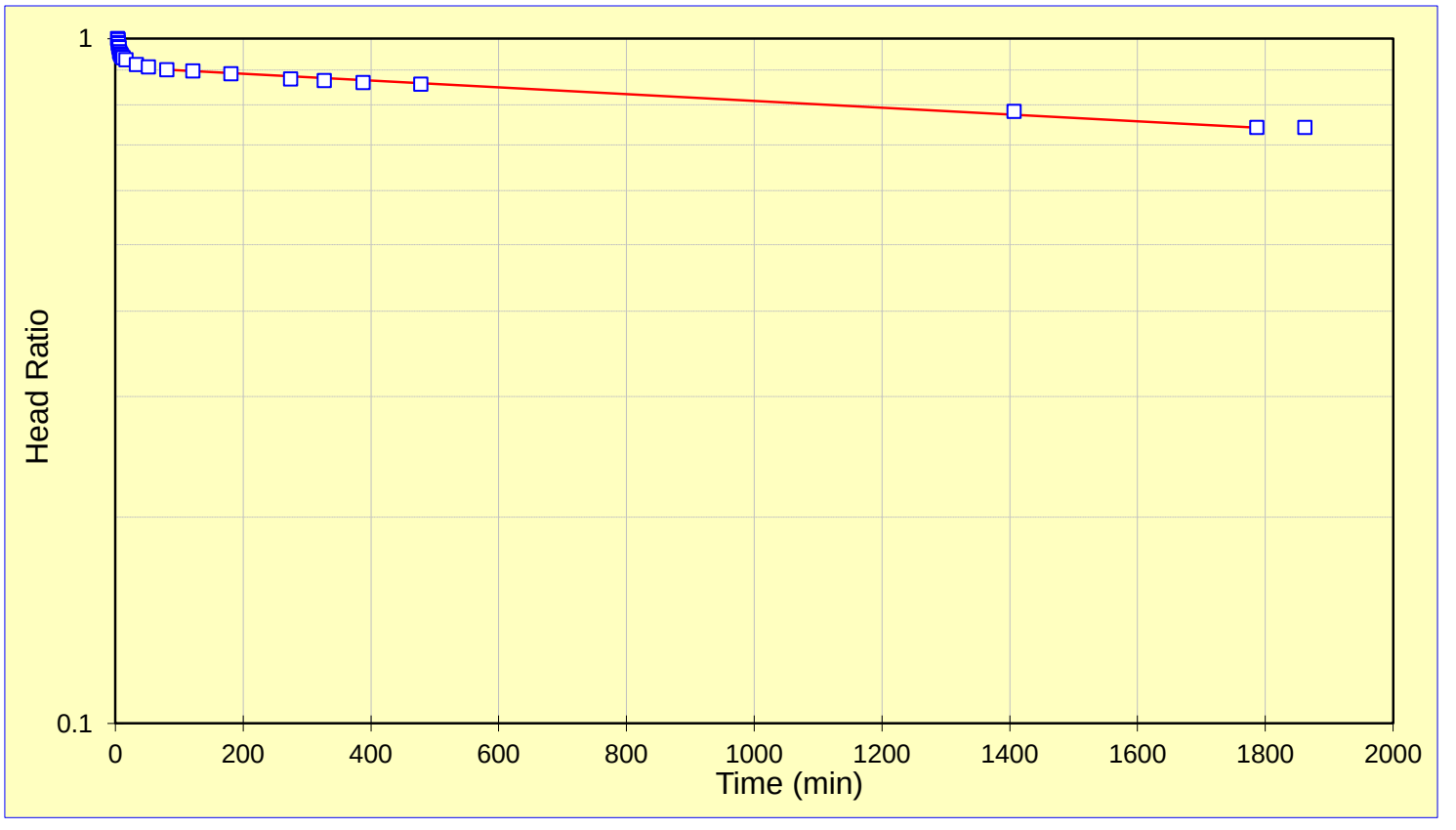
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
0.0	7.25	0.000	0.000	0.00
3.8	2.61	3.833	4.640	1.00
4.2	2.62	4.250	4.630	1.00
4.5	2.63	4.500	4.620	1.00
4.8	2.67	4.750	4.580	0.99
5.0	2.69	5.000	4.560	0.98
5.5	2.73	5.500	4.520	0.97
6.0	2.75	6.000	4.500	0.97
7.0	2.81	7.000	4.440	0.96
8.0	2.84	8.000	4.410	0.95
9.0	2.86	9.000	4.390	0.95
10.5	2.88	10.500	4.370	0.94
12.5	2.9	12.500	4.350	0.94
17.0	2.93	17.000	4.320	0.93
33.0	3	33.000	4.250	0.92
52.0	3.03	52.000	4.220	0.91
81.0	3.07	81.000	4.180	0.90
121.5	3.09	121.500	4.160	0.90
181.0	3.13	181.000	4.120	0.89
274.3	3.2	274.333	4.050	0.87
327.0	3.22	327.000	4.030	0.87
388.0	3.25	388.000	4.000	0.86
478.0	3.27	478.000	3.980	0.86
1407.0	3.62	1407.000	3.630	0.78
1786.7	3.81	1786.667	3.440	0.74
1862.5	3.81	1862.500	3.440	0.74

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-06

$$K = \frac{r_c^2}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
R_e =	0.14			
L_e =	4.7	K=	1.80E-07	cm/sec
t_1 =	81	K=	5.11E-04	ft/day
t_2 =	1786.666667			
h_1/h_0 =	0.90			
h_2/h_0 =	0.74			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/01/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

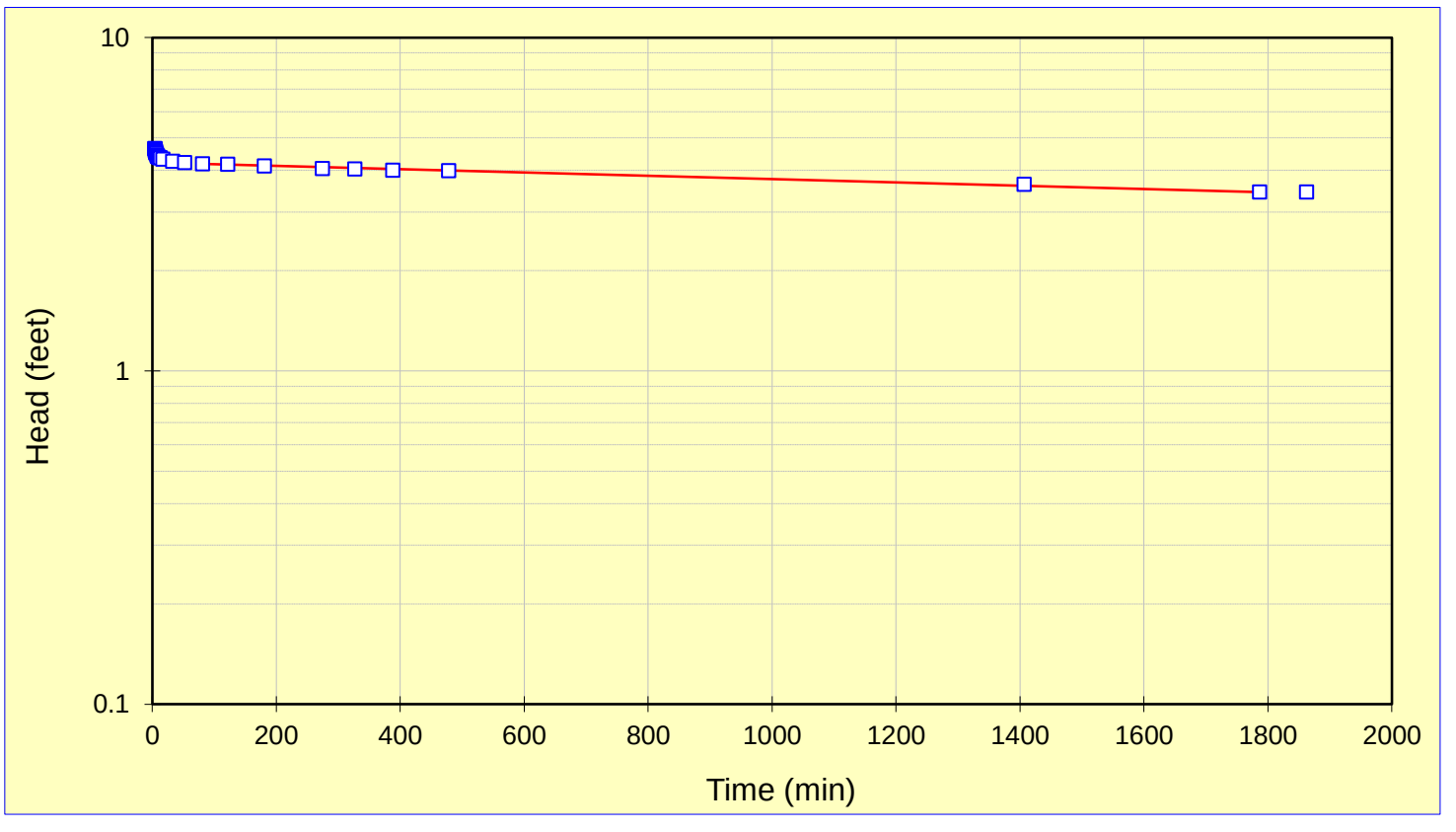
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-06

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
r_w =	0.14			
L_e =	4.7	K=	1.37E-07	cm/sec
$\ln(R_e/r_w)$=	2.71	K=	3.89E-04	ft/day
y_0 =	4.22			
y_t =	3.440			
t =	1786.7			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/01/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

RISING HEAD TEST MW-09

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-09	
DATE	5/1/2012	
INITIAL DEPTH TO WATER	2.63	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	6.26	FEET (btoc)
BOTTOM OF OPEN INTERVAL	11.26	FEET (btoc)
SATURATED THICKNESS	8.63	FEET
WATER TABLE TO BOTTOM OF SCREEN	8.63	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	5	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	8.52	FEET
MAX. HEAD IN SCREEN?	N	

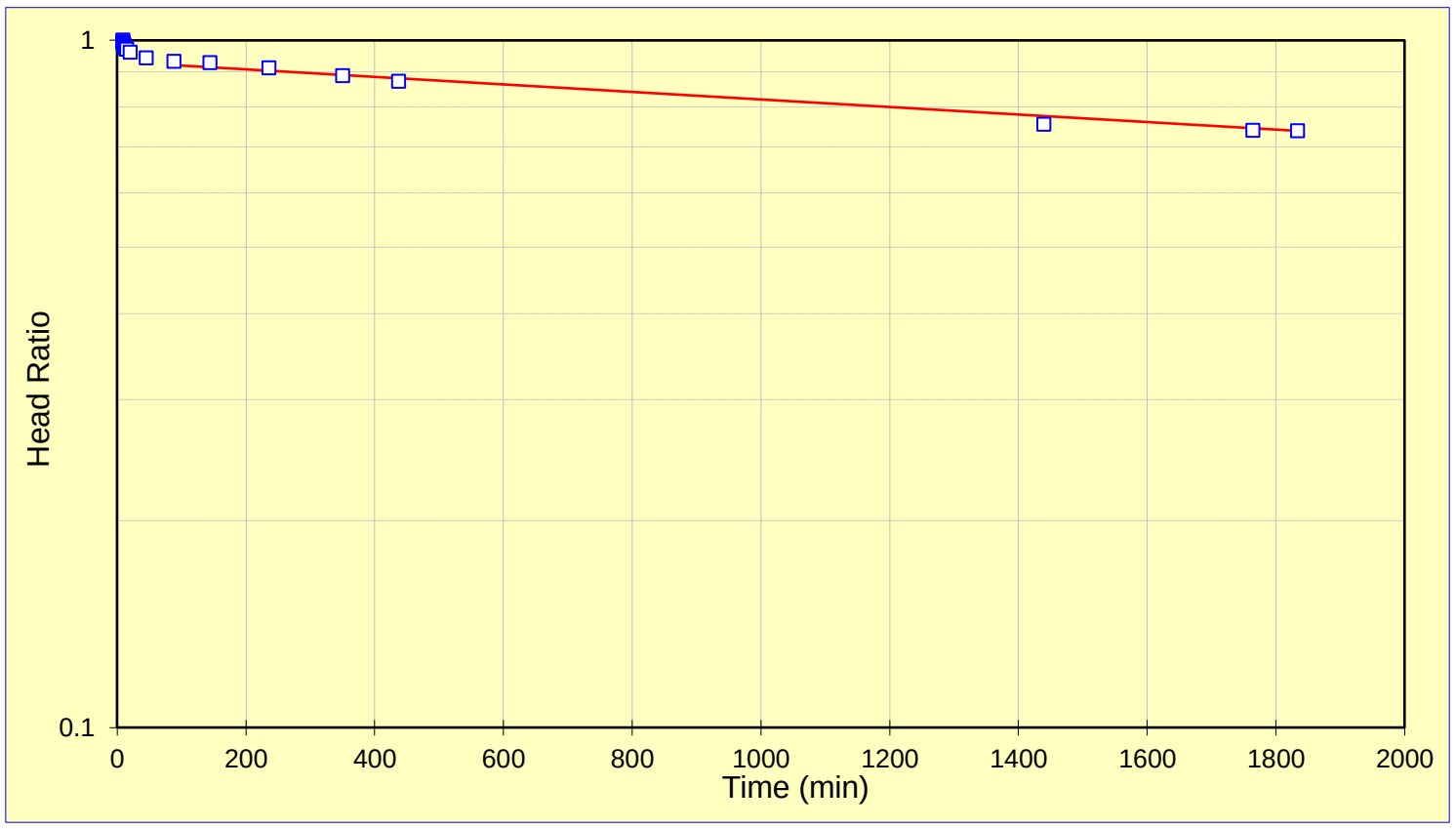
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
0.0	9.4	0.000	0.000	0.00
8.5	0.88	8.500	8.520	1.00
8.8	0.93	8.833	8.470	0.99
9.2	0.96	9.167	8.440	0.99
9.5	0.97	9.500	8.430	0.99
10.2	1	10.167	8.400	0.99
10.5	1.02	10.500	8.380	0.98
11.5	1.06	11.500	8.340	0.98
12.5	1.09	12.500	8.310	0.98
13.5	1.12	13.500	8.280	0.97
14.5	1.14	14.500	8.260	0.97
20.5	1.22	20.500	8.180	0.96
45.0	1.37	45.000	8.030	0.94
88.5	1.46	88.500	7.940	0.93
143.8	1.5	143.833	7.900	0.93
235.8	1.63	235.833	7.770	0.91
350.5	1.84	350.500	7.560	0.89
437.5	1.98	437.500	7.420	0.87
1439.5	2.97	1439.500	6.430	0.75
1764.5	3.1	1764.500	6.300	0.74
1833.5	3.11	1833.500	6.290	0.74

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-09

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.06			
R_e =	0.14			
L_e =	5	K=	9.03E-08	cm/sec
t_1 =	88	K=	2.56E-04	ft/day
t_2 =	1833.5			
h_1/h_0 =	0.92			
h_2/h_0 =	0.74			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/01/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

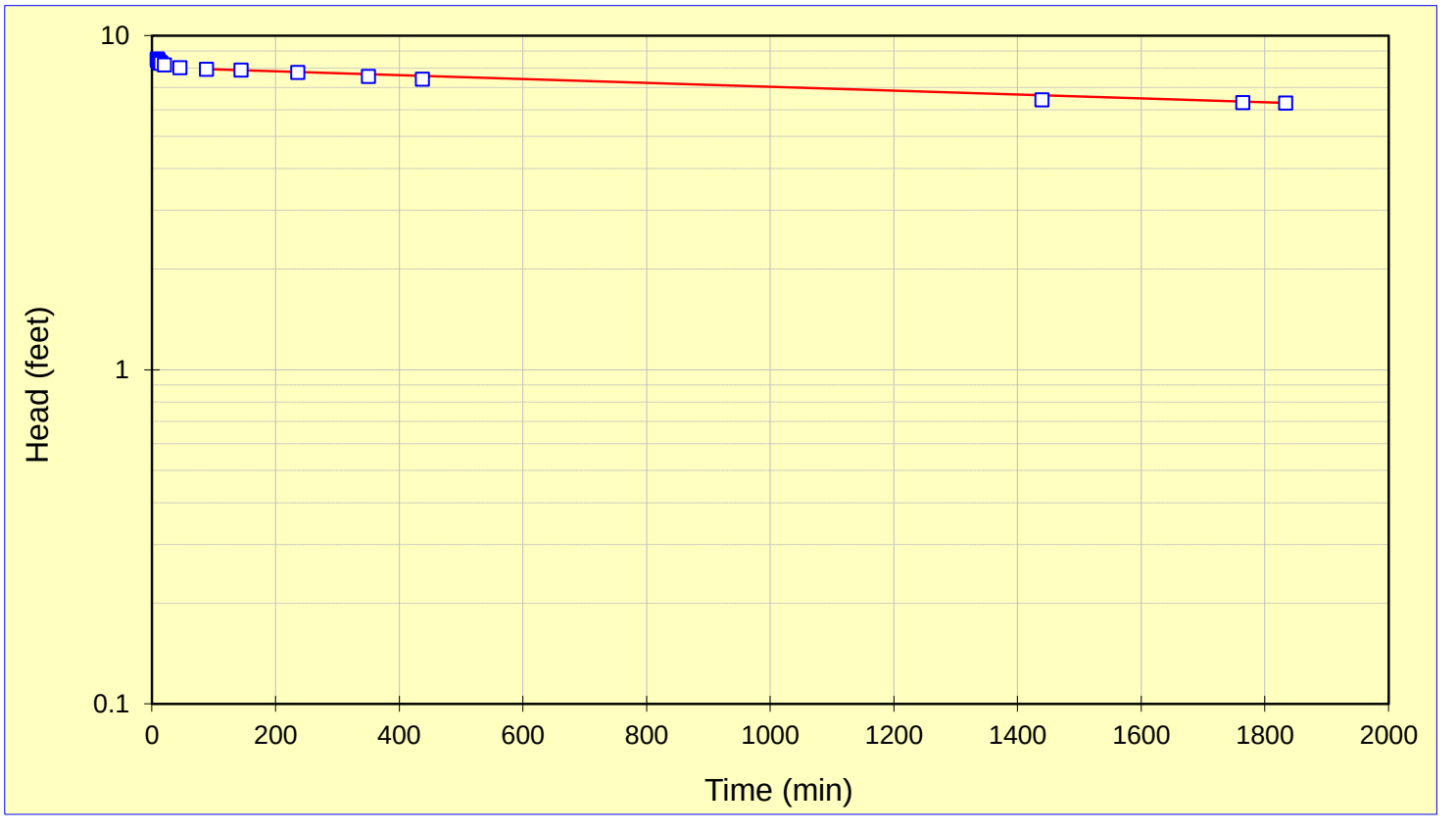
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-09

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.06			
r_w =	0.14			
L_e =	5	K=	8.18E-08	cm/sec
$\ln(R_e/r_w)$=	3.11	K=	2.32E-04	ft/day
y_0 =	8.02			
y_t =	6.290			
t =	1833.5			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/01/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

RISING HEAD TEST MW-11

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-11	
DATE	4/30/2012	
INITIAL DEPTH TO WATER	2.98	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	2.42	FEET (btoc)
BOTTOM OF OPEN INTERVAL	12.42	FEET (btoc)
SATURATED THICKNESS	9.44	FEET
WATER TABLE TO BOTTOM OF SCREEN	9.44	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	9.44	FEET
STATIC IN SCREEN?	Y	
MAX. HEAD CHANGE	9.44	FEET
MAX. HEAD IN SCREEN?	N	

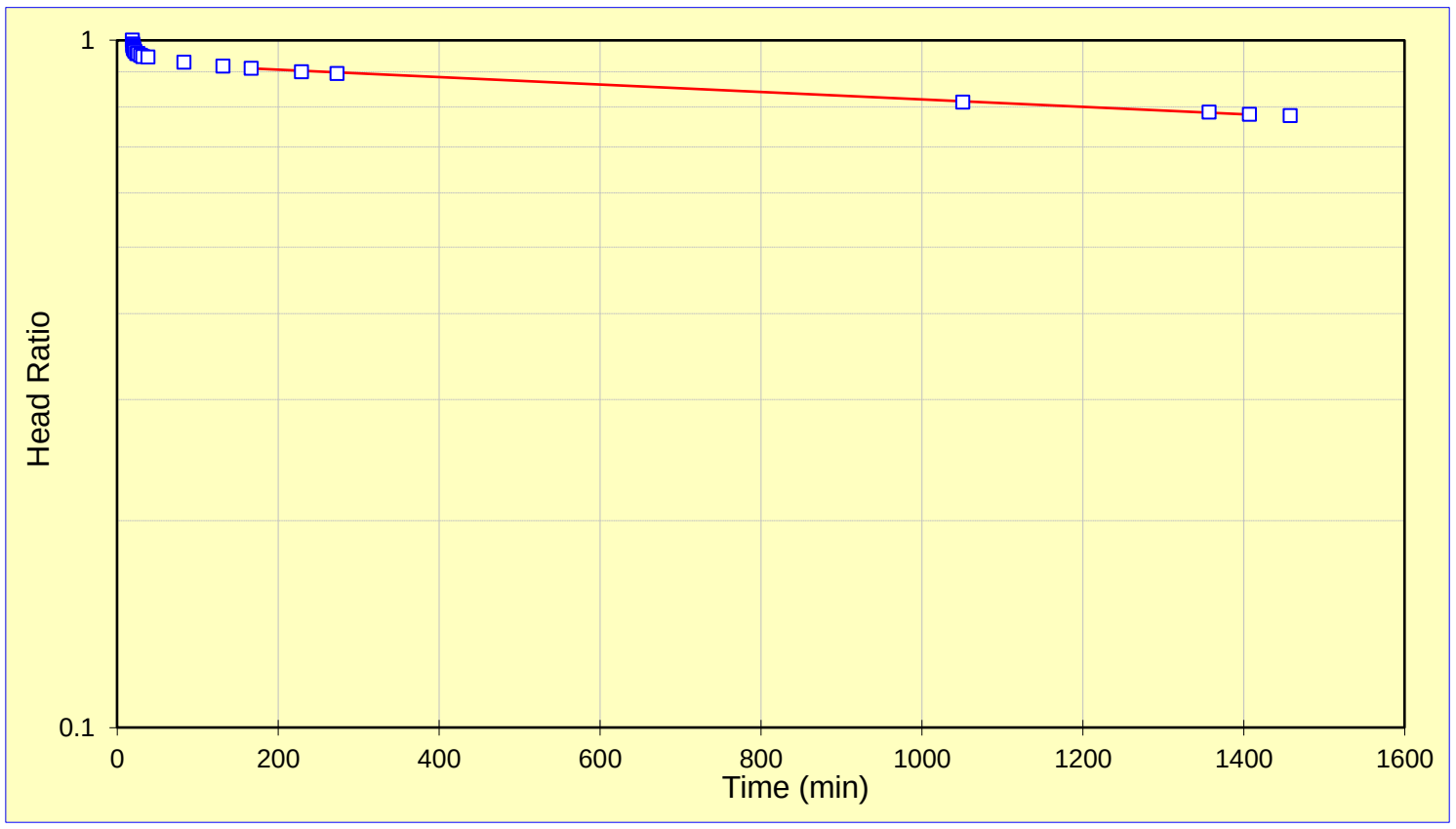
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
0.0	9.05	0.000	0.000	0.00
18.7	-0.39	18.667	9.440	1.00
19.2	-0.27	19.167	9.320	0.99
19.5	-0.22	19.500	9.270	0.98
19.7	-0.2	19.667	9.250	0.98
20.0	-0.16	20.000	9.210	0.98
20.3	-0.14	20.333	9.190	0.97
20.7	-0.12	20.667	9.170	0.97
21.0	-0.09	21.000	9.140	0.97
22.0	-0.04	22.000	9.090	0.96
24.3	0.02	24.333	9.030	0.96
25.8	0.03	25.833	9.020	0.96
29.0	0.07	29.000	8.980	0.95
32.0	0.11	32.000	8.940	0.95
38.5	0.13	38.500	8.920	0.94
83.0	0.28	83.000	8.770	0.93
131.7	0.4	131.667	8.650	0.92
166.7	0.46	166.667	8.590	0.91
229.0	0.56	229.000	8.490	0.90
273.0	0.61	273.000	8.440	0.89
1051.0	1.38	1051.000	7.670	0.81
1357.0	1.63	1357.000	7.420	0.79
1407.0	1.69	1407.000	7.360	0.78
1458.0	1.72	1458.000	7.330	0.78

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-11

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
R_e =	0.14			
L_e =	9.44	K=	1.17E-07	cm/sec
t_1 =	166.6666667	K=	3.32E-04	ft/day
t_2 =	1407			
h_1/h_0 =	0.91			
h_2/h_0 =	0.78			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 04/30/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

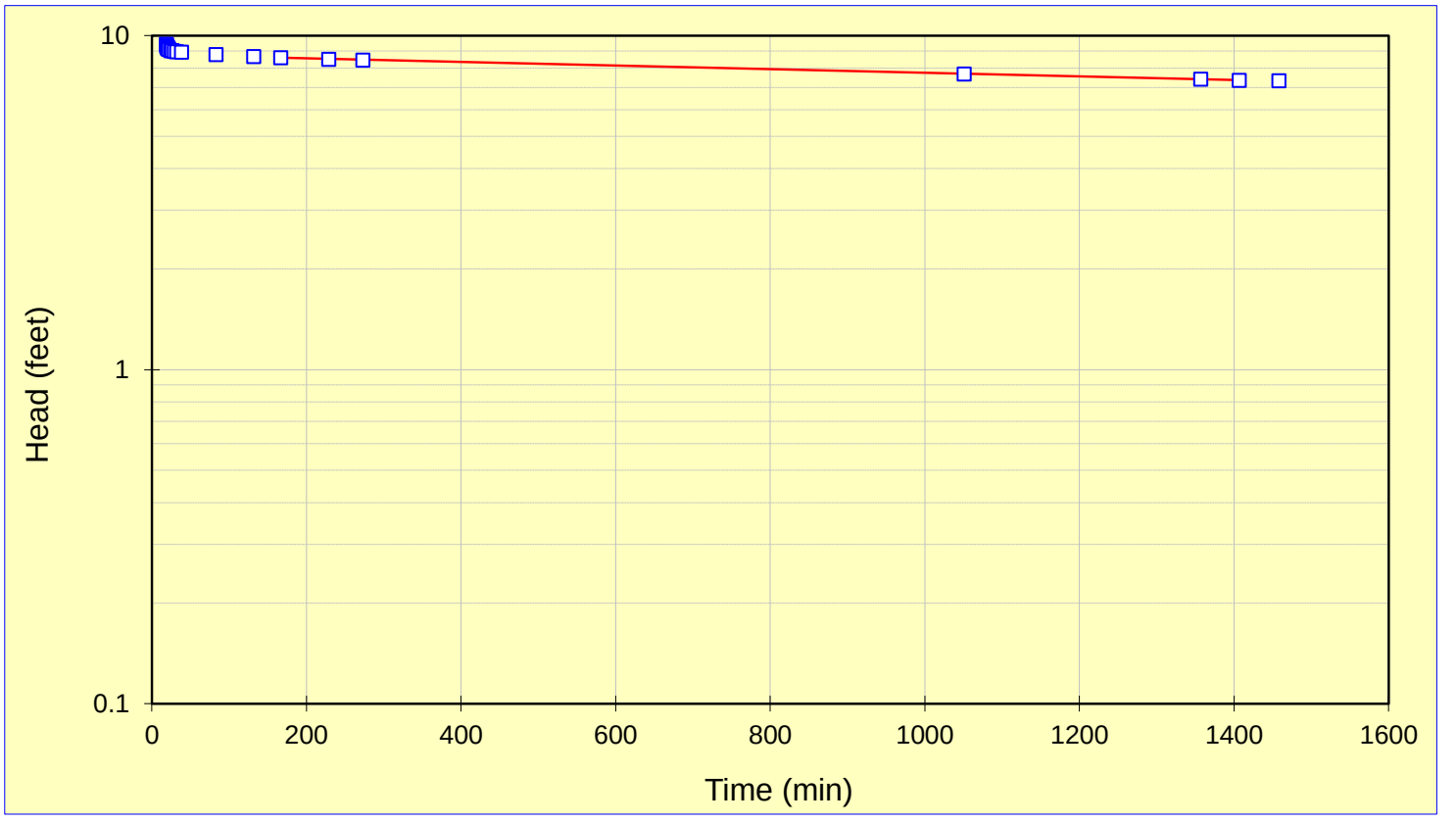
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-11

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
r_w =	0.14			
L_e =	9.44	K=	8.89E-08	cm/sec
$\ln(R_e/r_w)$=	3.25	K=	2.52E-04	ft/day
y_0 =	8.76			
y_t =	7.360			
t =	1407.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 04/30/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

RISING HEAD TEST MW-15

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-15	
DATE	4/30/2012	
INITIAL DEPTH TO WATER	5.01	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	2.71	FEET (btoc)
BOTTOM OF OPEN INTERVAL	12.71	FEET (btoc)
SATURATED THICKNESS	7.7	FEET
WATER TABLE TO BOTTOM OF SCREEN	7.7	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	7.7	FEET
STATIC IN SCREEN?	Y	
MAX. HEAD CHANGE	7.57	FEET
MAX. HEAD IN SCREEN?	N	

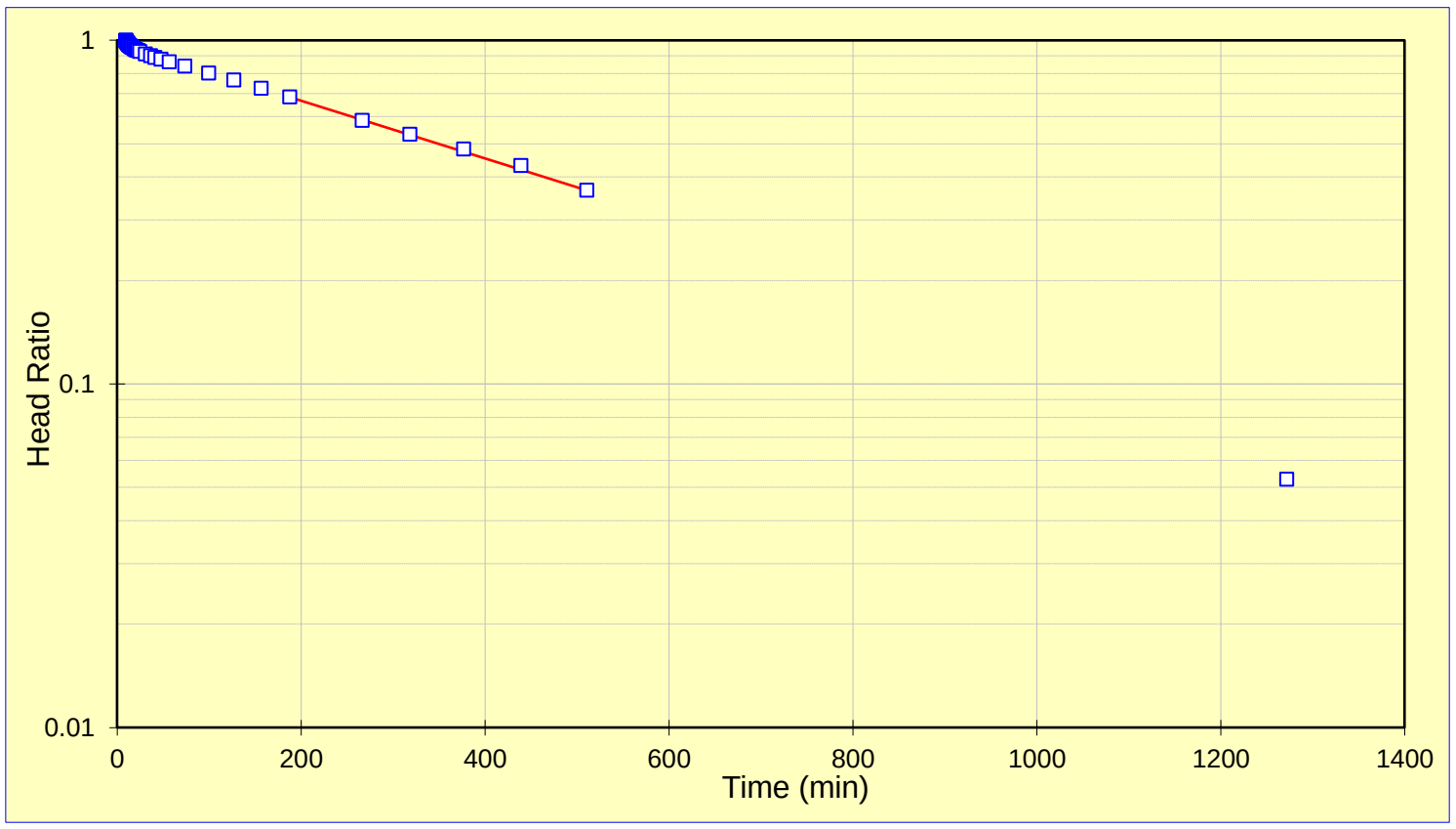
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
0.0	7.02	0.000	0.000	0.00
9.3	-0.55	9.317	7.570	1.00
9.5	-0.53	9.500	7.550	1.00
9.7	-0.5	9.667	7.520	0.99
9.9	-0.49	9.867	7.510	0.99
10.2	-0.46	10.200	7.480	0.99
10.7	-0.43	10.667	7.450	0.98
11.2	-0.4	11.167	7.420	0.98
11.7	-0.37	11.700	7.390	0.98
12.2	-0.34	12.217	7.360	0.97
12.8	-0.31	12.783	7.330	0.97
13.7	-0.28	13.717	7.300	0.96
14.7	-0.25	14.667	7.270	0.96
15.7	-0.21	15.683	7.230	0.96
16.7	-0.18	16.667	7.200	0.95
18.2	-0.13	18.167	7.150	0.94
19.7	-0.09	19.700	7.110	0.94
21.0	-0.07	21.017	7.090	0.94
22.7	-0.04	22.667	7.060	0.93
24.7	0	24.667	7.020	0.93
30.7	0.11	30.700	6.910	0.91
36.2	0.2	36.167	6.820	0.90
41.2	0.28	41.167	6.740	0.89
47.7	0.36	47.667	6.660	0.88
56.7	0.47	56.667	6.550	0.87
73.7	0.66	73.667	6.360	0.84
99.7	0.94	99.667	6.080	0.80
126.7	1.23	126.667	5.790	0.76
156.7	1.54	156.667	5.480	0.72
187.7	1.85	187.667	5.170	0.68
266.7	2.6	266.667	4.420	0.58
318.3	2.99	318.333	4.030	0.53
376.7	3.37	376.667	3.650	0.48
438.8	3.75	438.833	3.270	0.43
510.5	4.25	510.500	2.770	0.37
1271.8	6.62	1271.833	0.400	0.05

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-15

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
R_e =	0.14			
L_e =	7.7	K=	2.12E-06	cm/sec
t_1 =	187.6666667	K=	6.01E-03	ft/day
t_2 =	510.5			
h_1/h_0 =	0.68			
h_2/h_0 =	0.37			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 04/30/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

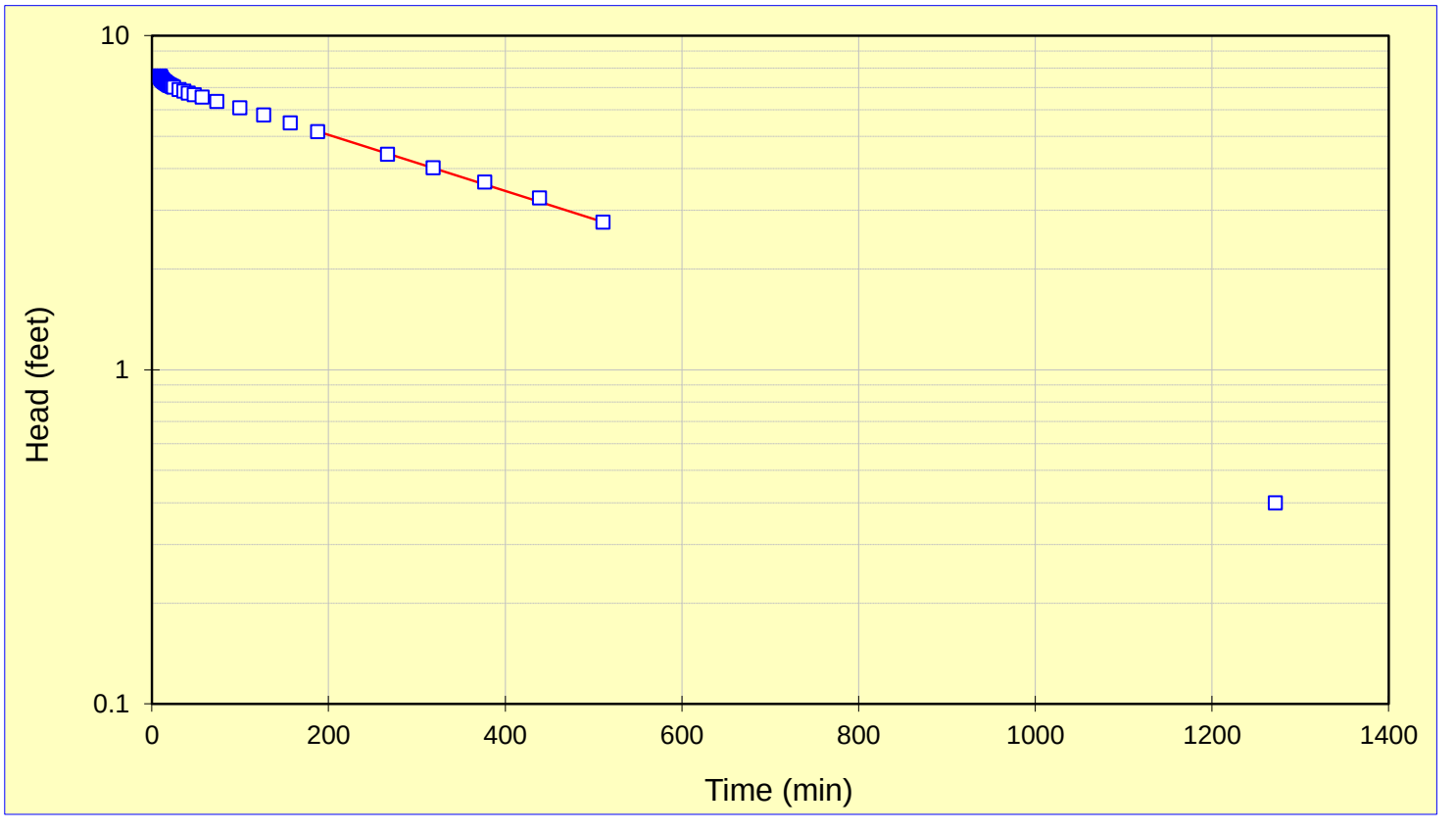
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-15

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
r_w =	0.14			
L_e =	7.7	K=	1.42E-06	cm/sec
$\ln(R_e/r_w)$=	3.10	K=	4.03E-03	ft/day
y_0 =	6.57			
y_t =	2.770			
t =	510.5			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 04/30/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

RISING HEAD TEST MW-22 (TRANSDUCER TEST 1)

Electrolux, Jefferson, IA
103-87305

WELL NO. MW-22 (TRANSDUCER TEST 1)

DATE	5/24/2012	
INITIAL DEPTH TO WATER	4.45	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	1.74	FEET (btoc)
BOTTOM OF OPEN INTERVAL	11.74	FEET (btoc)
SATURATED THICKNESS	7.29	FEET
WATER TABLE TO BOTTOM OF SCREEN	7.29	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	7.29	FEET
STATIC IN SCREEN?	Y	
MAX. HEAD CHANGE	1.77	FEET
MAX. HEAD IN SCREEN?	N	

EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
20.67	38.543			
20.70	38.441			
20.73	36.914			
20.77	36.778	0.000	1.765	1.00
20.80	37.01	0.033	1.533	0.87
20.83	37.071	0.067	1.472	0.83
20.87	37.214	0.100	1.329	0.75
20.90	37.25	0.133	1.293	0.73
20.93	37.431	0.167	1.112	0.63
20.97	37.391	0.200	1.152	0.65
21.00	37.525	0.233	1.018	0.58
21.03	37.563	0.267	0.980	0.56
21.07	37.617	0.300	0.926	0.52
21.10	37.622	0.333	0.921	0.52
21.13	37.665	0.367	0.878	0.50
21.17	37.695	0.400	0.848	0.48
21.20	37.745	0.433	0.798	0.45
21.23	37.76	0.467	0.783	0.44
21.27	37.74	0.500	0.803	0.45
21.30	37.808	0.533	0.735	0.42
21.33	37.817	0.567	0.726	0.41
21.37	37.831	0.600	0.712	0.40
21.40	37.835	0.633	0.708	0.40
21.43	37.869	0.667	0.674	0.38
21.47	37.896	0.700	0.647	0.37
21.50	37.928	0.733	0.615	0.35
21.53	37.946	0.767	0.597	0.34
21.57	37.989	0.800	0.554	0.31
21.60	37.976	0.833	0.567	0.32
21.63	38.023	0.867	0.520	0.29
21.67	37.992	0.900	0.551	0.31
21.70	38.071	0.933	0.472	0.27
21.73	38.055	0.967	0.488	0.28
21.77	38.053	1.000	0.490	0.28
21.80	38.044	1.033	0.499	0.28
21.83	38.069	1.067	0.474	0.27
21.87	38.114	1.100	0.429	0.24
21.90	38.099	1.133	0.444	0.25

EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
21.93	38.126	1.167	0.417	0.24
21.97	38.121	1.200	0.422	0.24
22.00	38.167	1.233	0.376	0.21
22.03	38.178	1.267	0.365	0.21
22.07	38.151	1.300	0.392	0.22
22.10	38.167	1.333	0.376	0.21
22.13	38.16	1.367	0.383	0.22
22.17	38.157	1.400	0.386	0.22
22.20	38.219	1.433	0.324	0.18
22.23	38.169	1.467	0.374	0.21
22.27	38.194	1.500	0.349	0.20
22.30	38.162	1.533	0.381	0.22
22.33	38.196	1.567	0.347	0.20
22.37	38.182	1.600	0.361	0.20
22.40	38.198	1.633	0.345	0.20
22.43	38.239	1.667	0.304	0.17
22.47	38.287	1.700	0.256	0.15
22.50	38.226	1.733	0.317	0.18
22.53	38.307	1.767	0.236	0.13
22.57	38.294	1.800	0.249	0.14
22.60	38.28	1.833	0.263	0.15
22.63	38.282	1.867	0.261	0.15
22.67	38.275	1.900	0.268	0.15
22.70	38.31	1.933	0.233	0.13
22.73	38.312	1.967	0.231	0.13
22.77	38.282	2.000	0.261	0.15
22.80	38.298	2.033	0.245	0.14
22.83	38.289	2.067	0.254	0.14
22.87	38.241	2.100	0.302	0.17
22.90	38.33	2.133	0.213	0.12
22.93	38.323	2.167	0.220	0.12
22.97	38.31	2.200	0.233	0.13
23.00	38.292	2.233	0.251	0.14
23.03	38.296	2.267	0.247	0.14
23.07	38.4	2.300	0.143	0.08
23.10	38.36	2.333	0.183	0.10
23.13	38.332	2.367	0.211	0.12
23.17	38.344	2.400	0.199	0.11
23.20	38.282	2.433	0.261	0.15
23.23	38.321	2.467	0.222	0.13
23.27	38.31	2.500	0.233	0.13
23.30	38.344	2.533	0.199	0.11
23.33	38.396	2.567	0.147	0.08
23.37	38.412	2.600	0.131	0.07
23.40	38.321	2.633	0.222	0.13
23.43	38.339	2.667	0.204	0.12
23.47	38.45	2.700	0.093	0.05
23.50	38.376	2.733	0.167	0.09
23.53	38.378	2.767	0.165	0.09
23.57	38.369	2.800	0.174	0.10
23.60	38.403	2.833	0.140	0.08
23.63	38.398	2.867	0.145	0.08
23.67	38.396	2.900	0.147	0.08
23.70	38.323	2.933	0.220	0.12
23.73	38.437	2.967	0.106	0.06

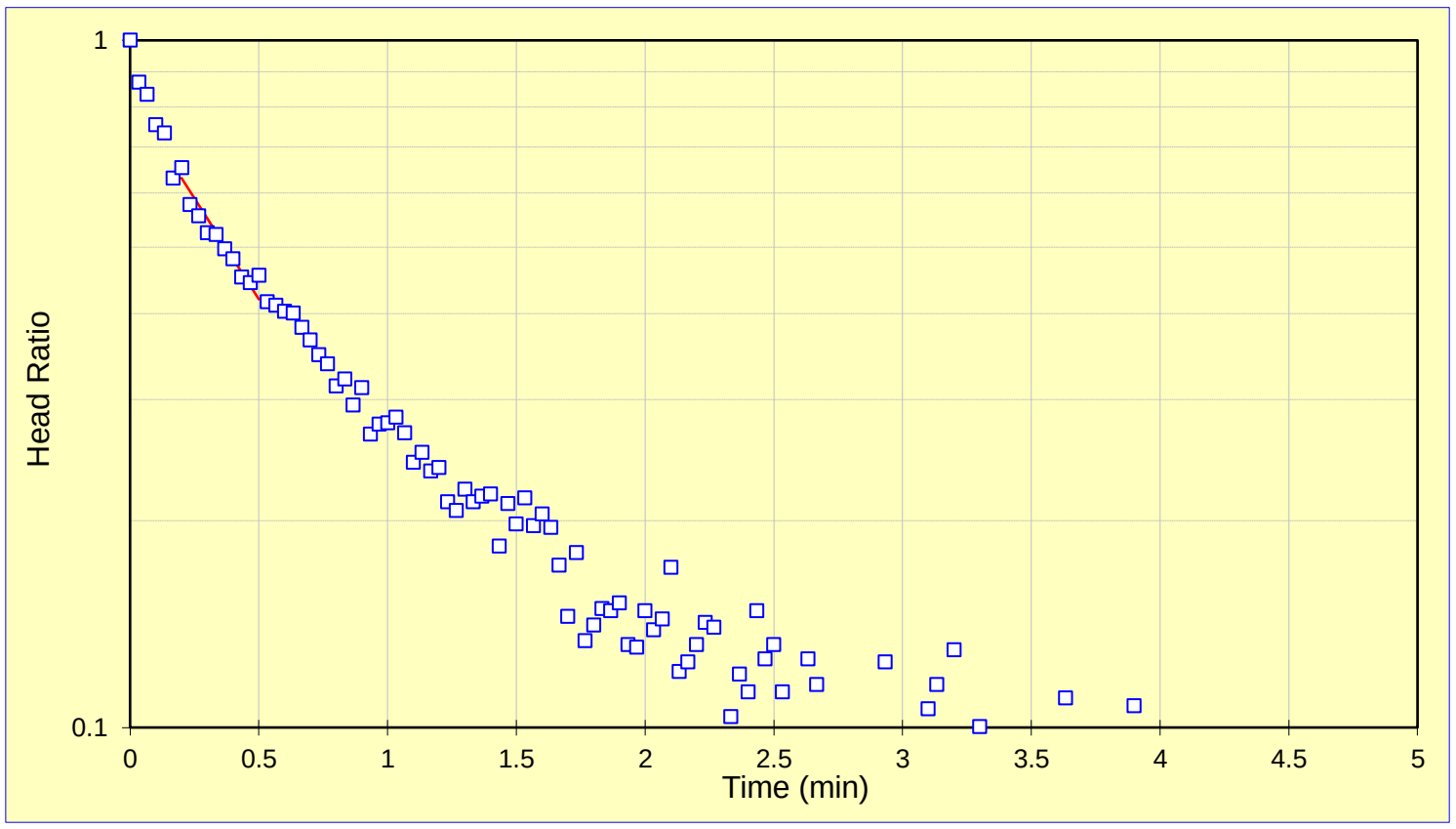
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
23.77	38.414	3.000	0.129	0.07
23.80	38.412	3.033	0.131	0.07
23.83	38.419	3.067	0.124	0.07
23.87	38.355	3.100	0.188	0.11
23.90	38.339	3.133	0.204	0.12
23.93	38.446	3.167	0.097	0.05
23.97	38.314	3.200	0.229	0.13
24.00	38.38	3.233	0.163	0.09
24.03	38.391	3.267	0.152	0.09
24.07	38.366	3.300	0.177	0.10
24.10	38.416	3.333	0.127	0.07
24.13	38.403	3.367	0.140	0.08
24.17	38.432	3.400	0.111	0.06
24.20	38.475	3.433	0.068	0.04
24.23	38.405	3.467	0.138	0.08
24.27	38.428	3.500	0.115	0.07
24.30	38.414	3.533	0.129	0.07
24.33	38.378	3.567	0.165	0.09
24.37	38.409	3.600	0.134	0.08
24.40	38.348	3.633	0.195	0.11
24.43	38.453	3.667	0.090	0.05
24.47	38.43	3.700	0.113	0.06
24.50	38.459	3.733	0.084	0.05
24.53	38.464	3.767	0.079	0.04
24.57	38.464	3.800	0.079	0.04
24.60	38.444	3.833	0.099	0.06
24.63	38.432	3.867	0.111	0.06
24.67	38.353	3.900	0.190	0.11
24.70	38.473	3.933	0.070	0.04
24.73	38.471	3.967	0.072	0.04
24.77	38.38	4.000	0.163	0.09
24.80	38.437	4.033	0.106	0.06
24.83	38.439	4.067	0.104	0.06
24.87	38.423	4.100	0.120	0.07
24.90	38.466	4.133	0.077	0.04
24.93	38.459	4.167	0.084	0.05
24.97	38.484	4.200	0.059	0.03

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-22 (TRANSDUCER TEST 1)

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
R_e =	0.14			
L_e =	7.29	K=	1.55E-03	cm/sec
t_1 =	0.2	K=	4.38E+00	ft/day
t_2 =	0.5			
h_1/h_0 =	0.63			
h_2/h_0 =	0.42			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/24/12

Analysis By: ATK
Checked By: WAD
Analysis Date: 8/2/2012

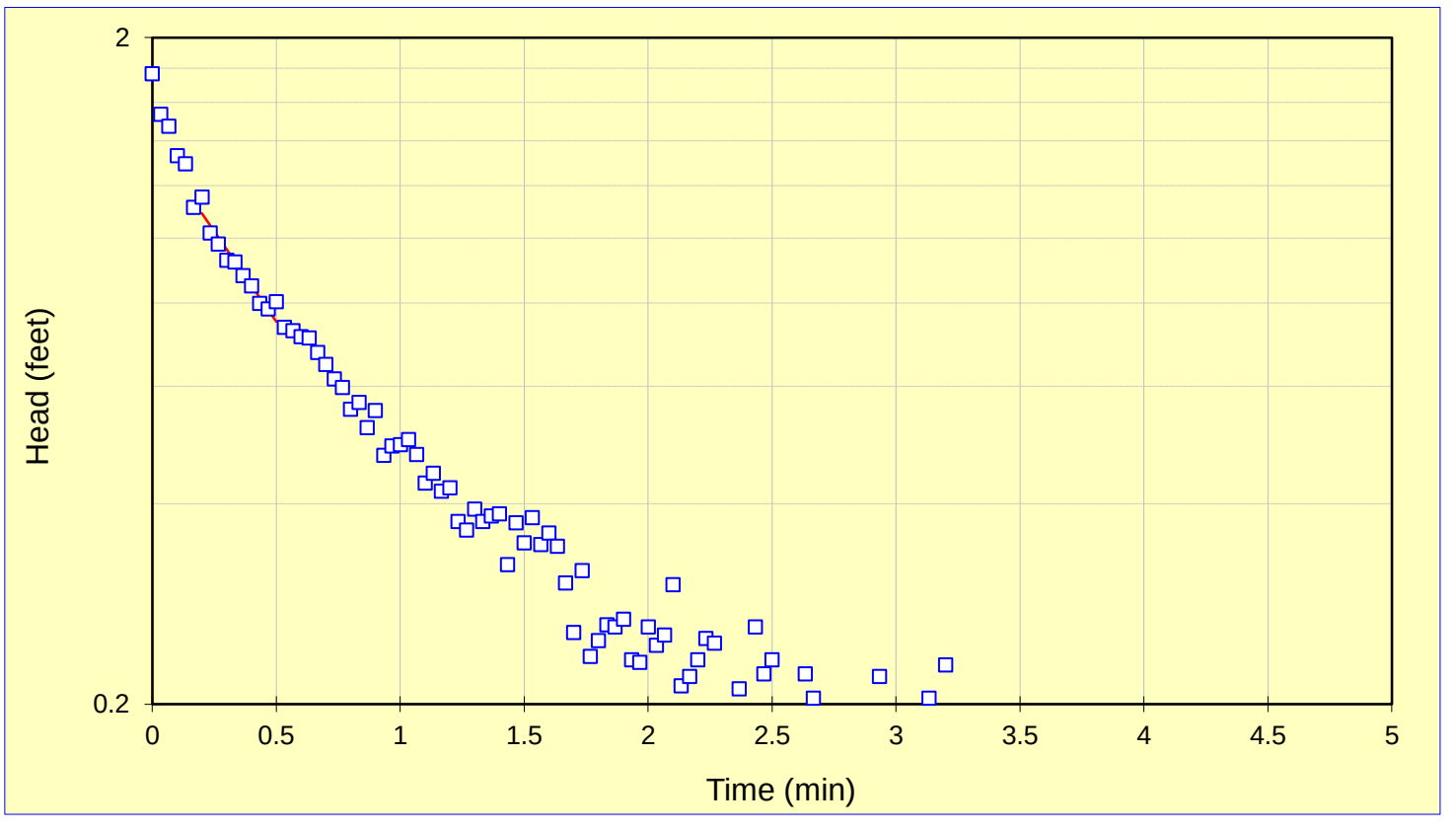
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-22 (TRANSDUCER TEST 1)

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
r_w =	0.14			
L_e =	7.29	K=	9.86E-04	cm/sec
$ln(R_e/r_w)$=	3.05	K=	2.80E+00	ft/day
y_0 =	1.32			
y_t =	0.750			
t =	0.5			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/24/12

Analysis By: ATK
Checked By: WAD
Analysis Date: 8/2/2012

RISING HEAD TEST MW-22 (TRANSDUCER TEST 2)

Electrolux, Jefferson, IA
103-87305

WELL NO. MW-22 (TRANSDUCER TEST 2)

DATE	5/24/2012	
INITIAL DEPTH TO WATER	4.45	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	1.74	FEET (btoc)
BOTTOM OF OPEN INTERVAL	11.74	FEET (btoc)
SATURATED THICKNESS	7.29	FEET
WATER TABLE TO BOTTOM OF SCREEN	7.29	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	7.29	FEET
STATIC IN SCREEN?	Y	
MAX. HEAD CHANGE	2.01	FEET
MAX. HEAD IN SCREEN?	N	

EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
64.70	38.507			
64.73	38.488			
64.77	37.937			
64.80	36.497	0.000	2.010	1.00
64.83	38.275	0.033	0.232	0.12
64.87	37.599	0.067	0.908	0.45
64.90	37.087	0.100	1.420	0.71
64.93	37.286	0.133	1.221	0.61
64.97	37.309	0.167	1.198	0.60
65.00	37.382	0.200	1.125	0.56
65.03	37.493	0.233	1.014	0.50
65.07	37.599	0.267	0.908	0.45
65.10	37.577	0.300	0.930	0.46
65.13	37.613	0.333	0.894	0.44
65.17	37.617	0.367	0.890	0.44
65.20	37.681	0.400	0.826	0.41
65.23	37.699	0.433	0.808	0.40
65.27	37.758	0.467	0.749	0.37
65.30	37.797	0.500	0.710	0.35
65.33	37.813	0.533	0.694	0.35
65.37	37.815	0.567	0.692	0.34
65.40	37.783	0.600	0.724	0.36
65.43	37.803	0.633	0.704	0.35
65.47	37.926	0.667	0.581	0.29
65.50	37.865	0.700	0.642	0.32
65.53	37.919	0.733	0.588	0.29
65.57	37.93	0.767	0.577	0.29
65.60	37.921	0.800	0.586	0.29
65.63	38.01	0.833	0.497	0.25
65.67	38.008	0.867	0.499	0.25
65.70	38.017	0.900	0.490	0.24
65.73	38.06	0.933	0.447	0.22
65.77	37.951	0.967	0.556	0.28
65.80	38.001	1.000	0.506	0.25
65.83	38.094	1.033	0.413	0.21

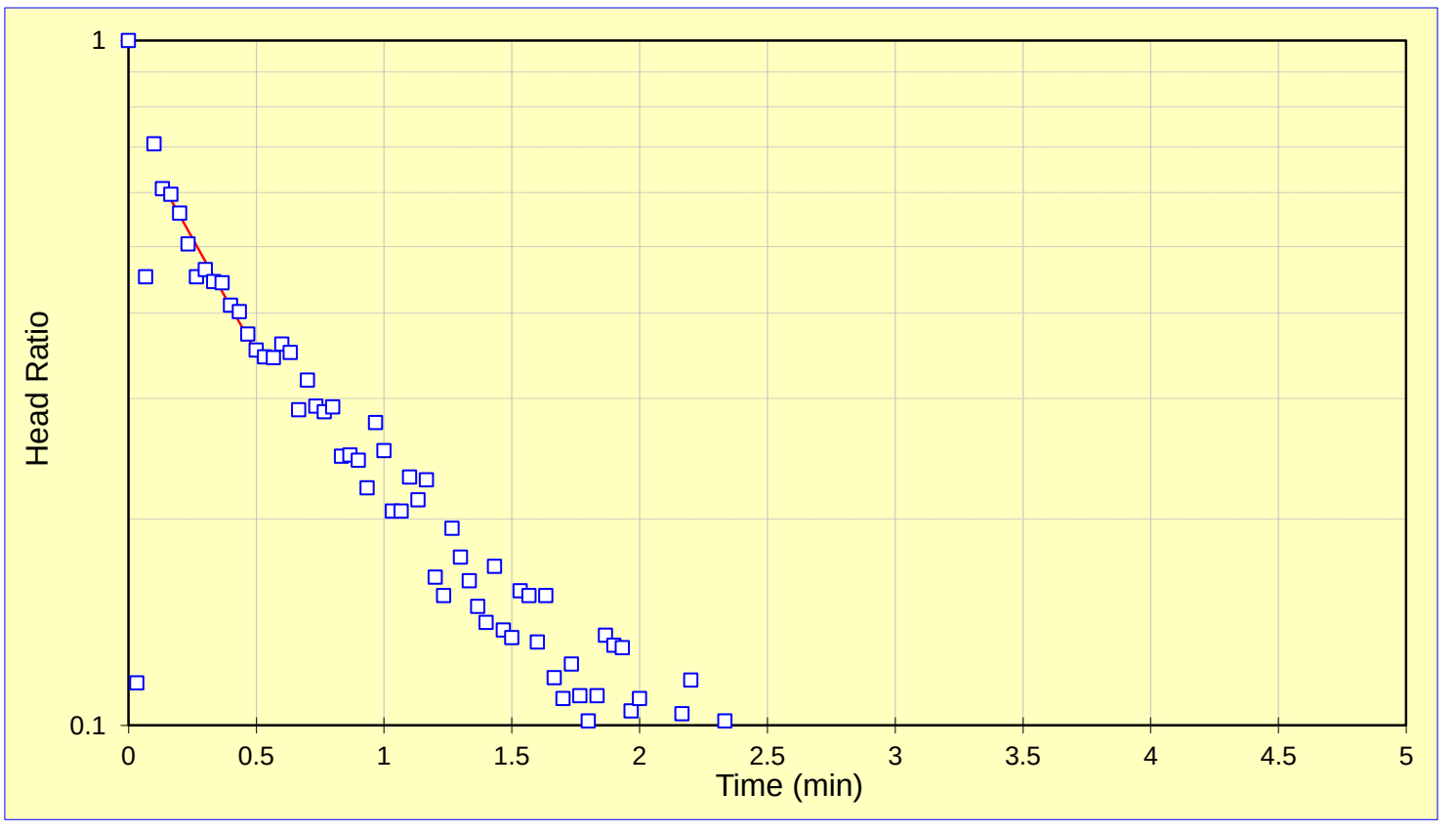
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
65.87	38.094	1.067	0.413	0.21
65.90	38.044	1.100	0.463	0.23
65.93	38.078	1.133	0.429	0.21
65.97	38.048	1.167	0.459	0.23
66.00	38.176	1.200	0.331	0.16
66.03	38.196	1.233	0.311	0.15
66.07	38.117	1.267	0.390	0.19
66.10	38.153	1.300	0.354	0.18
66.13	38.18	1.333	0.327	0.16
66.17	38.207	1.367	0.300	0.15
66.20	38.223	1.400	0.284	0.14
66.23	38.164	1.433	0.343	0.17
66.27	38.23	1.467	0.277	0.14
66.30	38.237	1.500	0.270	0.13
66.33	38.191	1.533	0.316	0.16
66.37	38.196	1.567	0.311	0.15
66.40	38.241	1.600	0.266	0.13
66.43	38.196	1.633	0.311	0.15
66.47	38.271	1.667	0.236	0.12
66.50	38.287	1.700	0.220	0.11
66.53	38.26	1.733	0.247	0.12
66.57	38.285	1.767	0.222	0.11
66.60	38.303	1.800	0.204	0.10
66.63	38.285	1.833	0.222	0.11
66.67	38.235	1.867	0.272	0.14
66.70	38.244	1.900	0.263	0.13
66.73	38.246	1.933	0.261	0.13
66.77	38.296	1.967	0.211	0.10
66.80	38.287	2.000	0.220	0.11
66.83	38.321	2.033	0.186	0.09
66.87	38.339	2.067	0.168	0.08
66.90	38.344	2.100	0.163	0.08
66.93	38.348	2.133	0.159	0.08
66.97	38.298	2.167	0.209	0.10
67.00	38.273	2.200	0.234	0.12
67.03	38.31	2.233	0.197	0.10
67.07	38.337	2.267	0.170	0.08
67.10	38.362	2.300	0.145	0.07
67.13	38.303	2.333	0.204	0.10
67.17	38.31	2.367	0.197	0.10
67.20	38.359	2.400	0.148	0.07
67.23	38.382	2.433	0.125	0.06
67.27	38.35	2.467	0.157	0.08
67.30	38.375	2.500	0.132	0.07
67.33	38.362	2.533	0.145	0.07
67.37	38.348	2.567	0.159	0.08
67.40	38.339	2.600	0.168	0.08
67.43	38.373	2.633	0.134	0.07
67.47	38.382	2.667	0.125	0.06
67.50	38.378	2.700	0.129	0.06
67.53	38.414	2.733	0.093	0.05

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-22 (TRANSDUCER TEST 2)

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
R_e =	0.14			
L_e =	7.29	K=	1.76E-03	cm/sec
t_1 =	0.15	K=	4.99E+00	ft/day
t_2 =	0.5			
h_1/h_0 =	0.60			
h_2/h_0 =	0.35			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/24/12

Analysis By: ATK
Checked By: WAD
Analysis Date: 8/2/2012

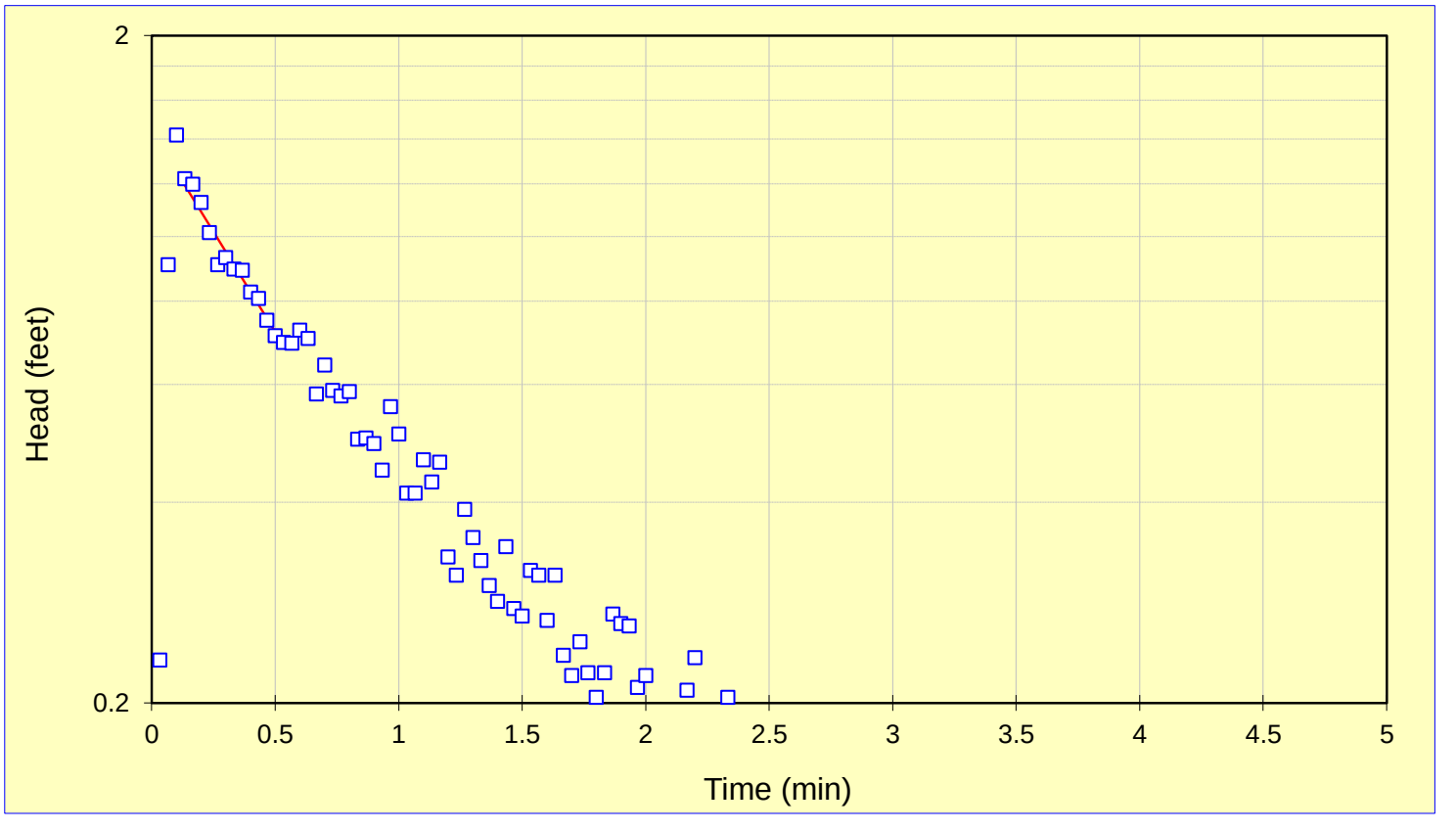
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-22 (TRANSDUCER TEST 2)

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
r_w =	0.14			
L_e =	7.29	K=	1.13E-03	cm/sec
$\ln(R_e/r_w)$=	3.05	K=	3.19E+00	ft/day
y_0 =	1.37			
y_t =	0.720			
t =	0.5			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/24/12

Analysis By: ATK
Checked By: WAD
Analysis Date: 8/2/2012

RISING HEAD TEST MW-23 (MANUAL) Electrolux, Jefferson, IA

WELL NO. W-23 (MANUA 103-87305

DATE	5/2/2012	
INITIAL DEPTH TO WATER	3.25	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	1.74	FEET (btoc)
BOTTOM OF OPEN INTERVAL	11.74	FEET (btoc)
SATURATED THICKNESS	8.49	FEET
WATER TABLE TO BOTTOM OF SCREEN	8.49	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	8.49	FEET
STATIC IN SCREEN?	Y	
MAX. HEAD CHANGE	3.75	FEET
MAX. HEAD IN SCREEN?	N	

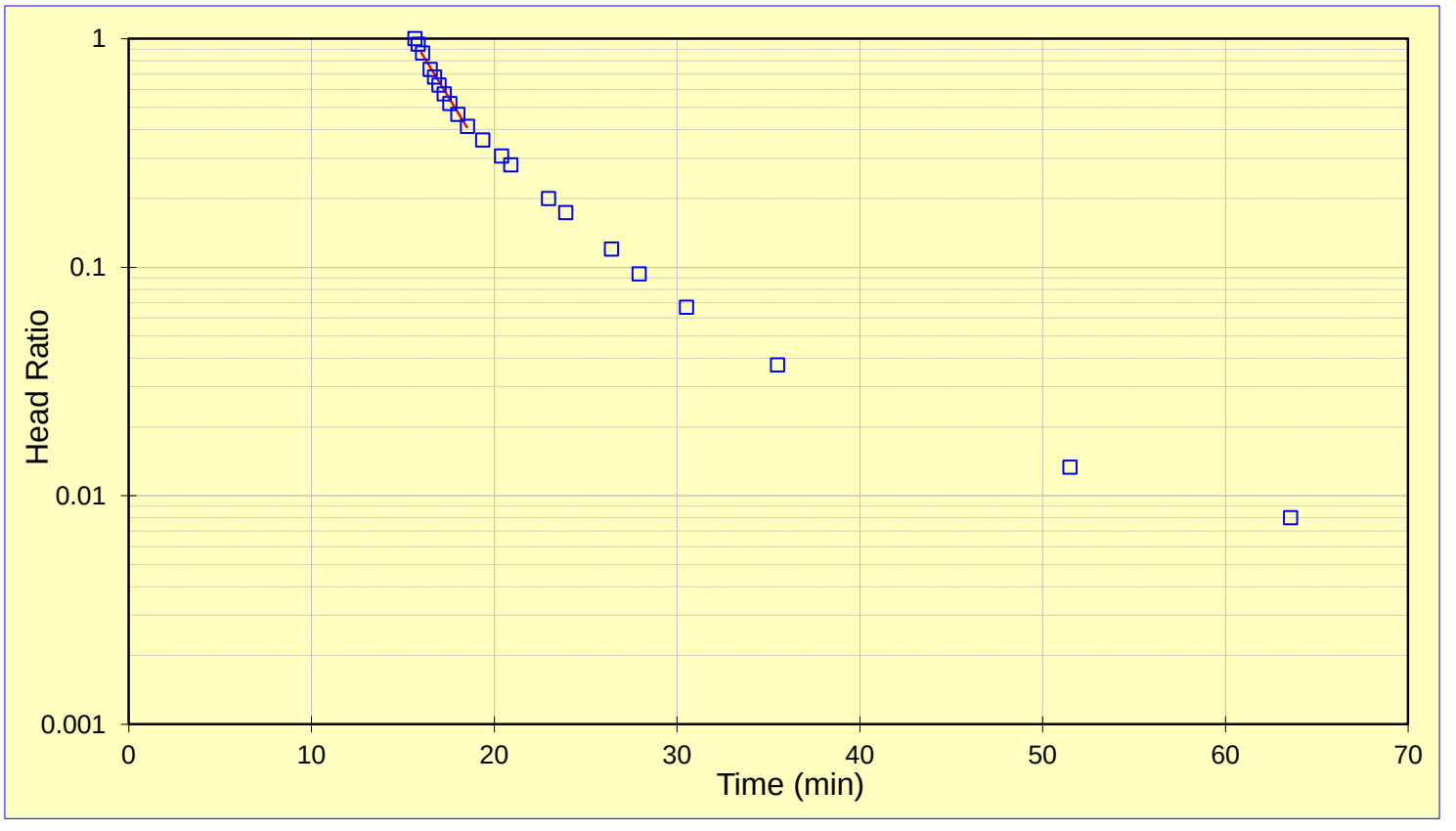
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
0.0	8.78	0.000	0.000	0.00
15.7	5.03	15.667	3.750	1.00
15.8	5.23	15.833	3.550	0.95
16.1	5.53	16.083	3.250	0.87
16.5	6.03	16.500	2.750	0.73
16.8	6.23	16.750	2.550	0.68
17.0	6.43	16.983	2.350	0.63
17.3	6.63	17.267	2.150	0.57
17.6	6.83	17.583	1.950	0.52
18.0	7.03	18.017	1.750	0.47
18.5	7.23	18.550	1.550	0.41
19.4	7.43	19.367	1.350	0.36
20.4	7.63	20.417	1.150	0.31
20.9	7.73	20.917	1.050	0.28
23.0	8.03	22.967	0.750	0.20
23.9	8.13	23.917	0.650	0.17
26.4	8.33	26.417	0.450	0.12
27.9	8.43	27.933	0.350	0.09
30.5	8.53	30.533	0.250	0.07
35.5	8.64	35.500	0.140	0.04
51.5	8.73	51.500	0.050	0.01
63.6	8.75	63.583	0.030	0.01

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-23 (MANUAL)

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
R_e =	0.14			
L_e =	8.49	K=	3.07E-04	cm/sec
t_1 =	16	K=	8.70E-01	ft/day
t_2 =	18.5			
h_1/h_0 =	0.87			
h_2/h_0 =	0.41			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/02/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

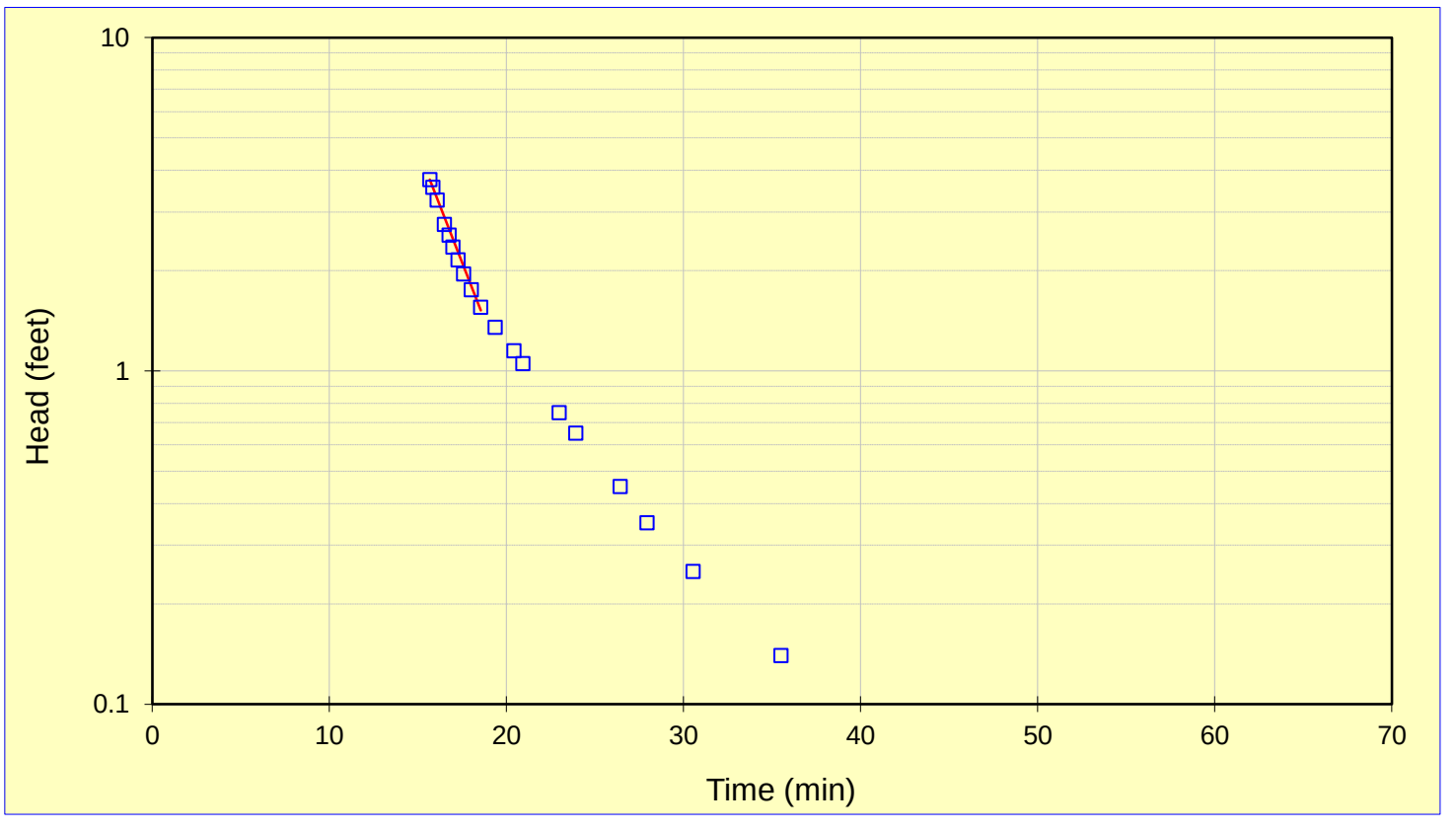
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-23 (MANUAL)

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
r_w =	0.14			
L_e =	8.49	K=	9.88E-05	cm/sec
$ln(R_e/r_w)$=	3.17	K=	2.80E-01	ft/day
y_0 =	15.88			
y_t =	1.520			
t =	18.5			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/02/12

Analysis By: ATK
Checked By: JRT
Analysis Date: 8/2/2012

RISING HEAD TEST MW-23 (TRANSDUCER TEST 1) Electrolux, Jefferson, IA

WELL NO. RANSDUCE 103-87305

DATE	5/24/2012	
INITIAL DEPTH TO WATER	4.63	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	1.73	FEET (btoc)
BOTTOM OF OPEN INTERVAL	11.73	FEET (btoc)
SATURATED THICKNESS	7.1	FEET
WATER TABLE TO BOTTOM OF SCREEN	7.1	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	7.1	FEET
STATIC IN SCREEN?	Y	
MAX. HEAD CHANGE	1.73	FEET
MAX. HEAD IN SCREEN?	N	

EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
49.93	38.379			
49.97	38.395			
50.00	37.753			
50.03	36.652	0.000	1.727	1.00
50.07	36.667	0.033	1.712	0.99
50.10	36.736	0.067	1.643	0.95
50.13	36.79	0.100	1.589	0.92
50.17	36.869	0.133	1.510	0.87
50.20	36.835	0.167	1.544	0.89
50.23	36.976	0.200	1.403	0.81
50.27	36.994	0.233	1.385	0.80
50.30	37.073	0.267	1.306	0.76
50.33	37.03	0.300	1.349	0.78
50.37	37.096	0.333	1.283	0.74
50.40	37.091	0.367	1.288	0.75
50.43	37.11	0.400	1.269	0.73
50.47	37.18	0.433	1.199	0.69
50.50	37.18	0.467	1.199	0.69
50.53	37.209	0.500	1.170	0.68
50.57	37.2	0.533	1.179	0.68
50.60	37.302	0.567	1.077	0.62
50.63	37.348	0.600	1.031	0.60
50.67	37.357	0.633	1.022	0.59
50.70	37.338	0.667	1.041	0.60
50.73	37.302	0.700	1.077	0.62
50.77	37.39	0.733	0.989	0.57
50.80	37.45	0.767	0.929	0.54
50.83	37.431	0.800	0.948	0.55
50.87	37.445	0.833	0.934	0.54
50.90	37.415	0.867	0.964	0.56
50.93	37.454	0.900	0.925	0.54
50.97	37.486	0.933	0.893	0.52
51.00	37.506	0.967	0.873	0.51
51.03	37.567	1.000	0.812	0.47
51.07	37.554	1.033	0.825	0.48
51.10	37.52	1.067	0.859	0.50
51.13	37.62	1.100	0.759	0.44
51.17	37.506	1.133	0.873	0.51
51.20	37.658	1.167	0.721	0.42
51.23	37.703	1.200	0.676	0.39
51.27	37.674	1.233	0.705	0.41
51.30	37.701	1.267	0.678	0.39
51.33	37.66	1.300	0.719	0.42
51.37	37.64	1.333	0.739	0.43
51.40	37.703	1.367	0.676	0.39
51.43	37.733	1.400	0.646	0.37
51.47	37.737	1.433	0.642	0.37
51.50	37.724	1.467	0.655	0.38
51.53	37.685	1.500	0.694	0.40
51.57	37.708	1.533	0.671	0.39
51.60	37.817	1.567	0.562	0.33
51.63	37.726	1.600	0.653	0.38
51.67	37.801	1.633	0.578	0.33
51.70	37.742	1.667	0.637	0.37
51.73	37.758	1.700	0.621	0.36
51.77	37.785	1.733	0.594	0.34
51.80	37.792	1.767	0.587	0.34
51.83	37.851	1.800	0.528	0.31
51.87	37.819	1.833	0.560	0.32

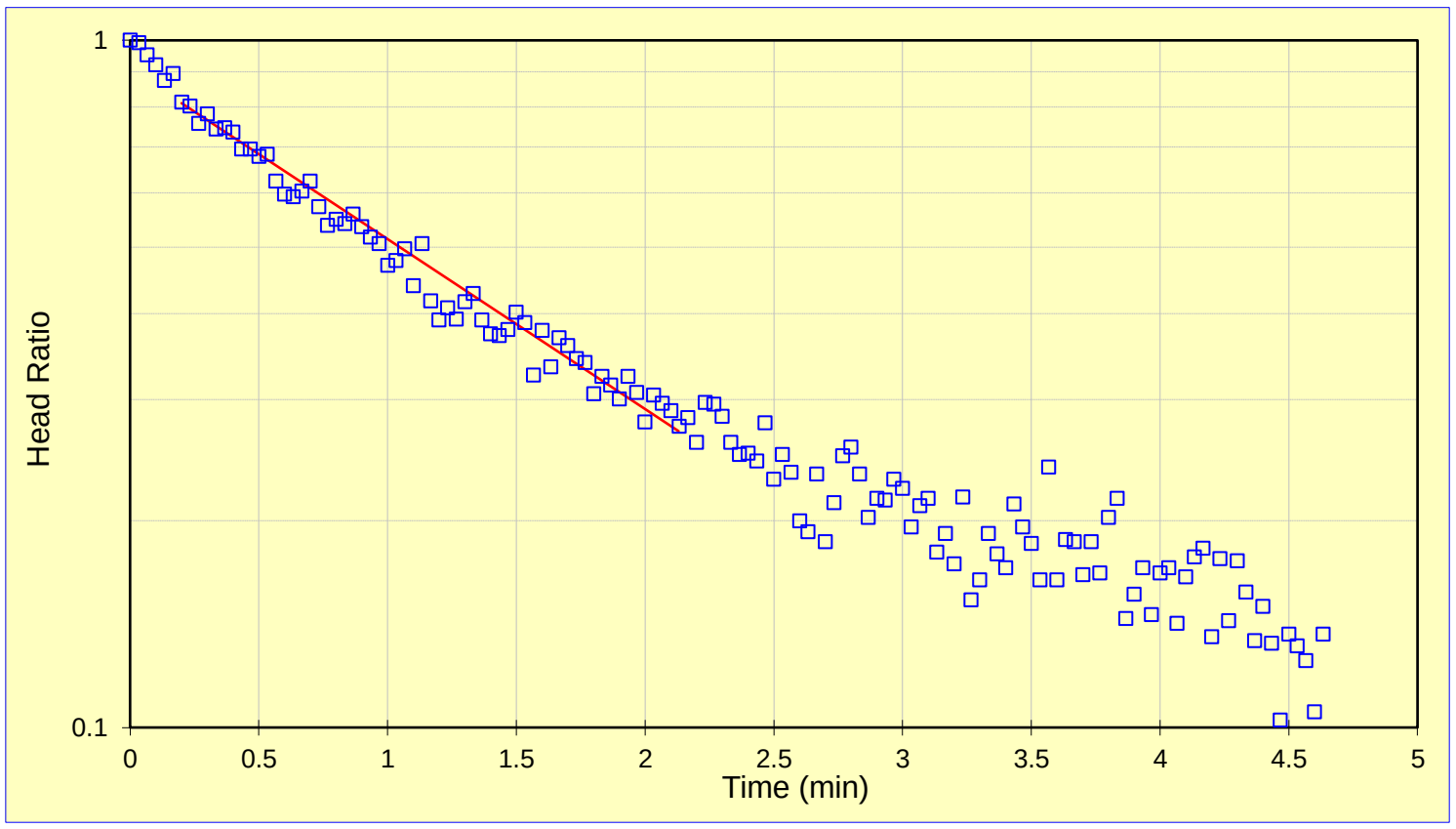
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
51.90	37.835	1.867	0.544	0.31
51.93	37.86	1.900	0.519	0.30
51.97	37.819	1.933	0.560	0.32
52.00	37.848	1.967	0.531	0.31
52.03	37.898	2.000	0.481	0.28
52.07	37.853	2.033	0.526	0.30
52.10	37.867	2.067	0.512	0.30
52.13	37.88	2.100	0.499	0.29
52.17	37.905	2.133	0.474	0.27
52.20	37.891	2.167	0.488	0.28
52.23	37.93	2.200	0.449	0.26
52.27	37.866	2.233	0.513	0.30
52.30	37.869	2.267	0.510	0.30
52.33	37.889	2.300	0.490	0.28
52.37	37.93	2.333	0.449	0.26
52.40	37.948	2.367	0.431	0.25
52.43	37.946	2.400	0.433	0.25
52.47	37.957	2.433	0.422	0.24
52.50	37.9	2.467	0.479	0.28
52.53	37.982	2.500	0.397	0.23
52.57	37.948	2.533	0.431	0.25
52.60	37.973	2.567	0.406	0.24
52.63	38.034	2.600	0.345	0.20
52.67	38.046	2.633	0.333	0.19
52.70	37.975	2.667	0.404	0.23
52.73	38.057	2.700	0.322	0.19
52.77	38.012	2.733	0.367	0.21
52.80	37.95	2.767	0.429	0.25
52.83	37.937	2.800	0.442	0.26
52.87	37.975	2.833	0.404	0.23
52.90	38.03	2.867	0.349	0.20
52.93	38.007	2.900	0.372	0.22
52.97	38.009	2.933	0.370	0.21
53.00	37.982	2.967	0.397	0.23
53.03	37.994	3.000	0.385	0.22
53.07	38.041	3.033	0.338	0.20
53.10	38.016	3.067	0.363	0.21
53.13	38.007	3.100	0.372	0.22
53.17	38.068	3.133	0.311	0.18
53.20	38.048	3.167	0.331	0.19
53.23	38.08	3.200	0.299	0.17
53.27	38.005	3.233	0.374	0.22
53.30	38.114	3.267	0.265	0.15
53.33	38.096	3.300	0.283	0.16
53.37	38.048	3.333	0.331	0.19
53.40	38.07	3.367	0.309	0.18
53.43	38.084	3.400	0.295	0.17
53.47	38.014	3.433	0.365	0.21
53.50	38.041	3.467	0.338	0.20
53.53	38.059	3.500	0.320	0.19
53.57	38.096	3.533	0.283	0.16
53.60	37.966	3.567	0.413	0.24
53.63	38.096	3.600	0.283	0.16
53.67	38.055	3.633	0.324	0.19
53.70	38.057	3.667	0.322	0.19
53.73	38.091	3.700	0.288	0.17
53.77	38.057	3.733	0.322	0.19
53.80	38.089	3.767	0.290	0.17
53.83	38.03	3.800	0.349	0.20
53.87	38.007	3.833	0.372	0.22
53.90	38.13	3.867	0.249	0.14
53.93	38.109	3.900	0.270	0.16
53.97	38.084	3.933	0.295	0.17
54.00	38.127	3.967	0.252	0.15
54.03	38.089	4.000	0.290	0.17
54.07	38.084	4.033	0.295	0.17
54.10	38.134	4.067	0.245	0.14
54.13	38.093	4.100	0.286	0.17
54.17	38.073	4.133	0.306	0.18
54.20	38.064	4.167	0.315	0.18
54.23	38.145	4.200	0.234	0.14
54.27	38.075	4.233	0.304	0.18
54.30	38.132	4.267	0.247	0.14
54.33	38.077	4.300	0.302	0.17
54.37	38.107	4.333	0.272	0.16
54.40	38.148	4.367	0.231	0.13

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-23 (TRANSDUCER TEST 1)

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
R_e =	0.14			
L_e =	7.1	K=	6.64E-04	cm/sec
t_1 =	0.2	K=	1.88E+00	ft/day
t_2 =	2.13			
h_1/h_0 =	0.81			
h_2/h_0 =	0.27			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/24/12

Analysis By: ATK
Checked By:
Analysis Date: 8/2/2012

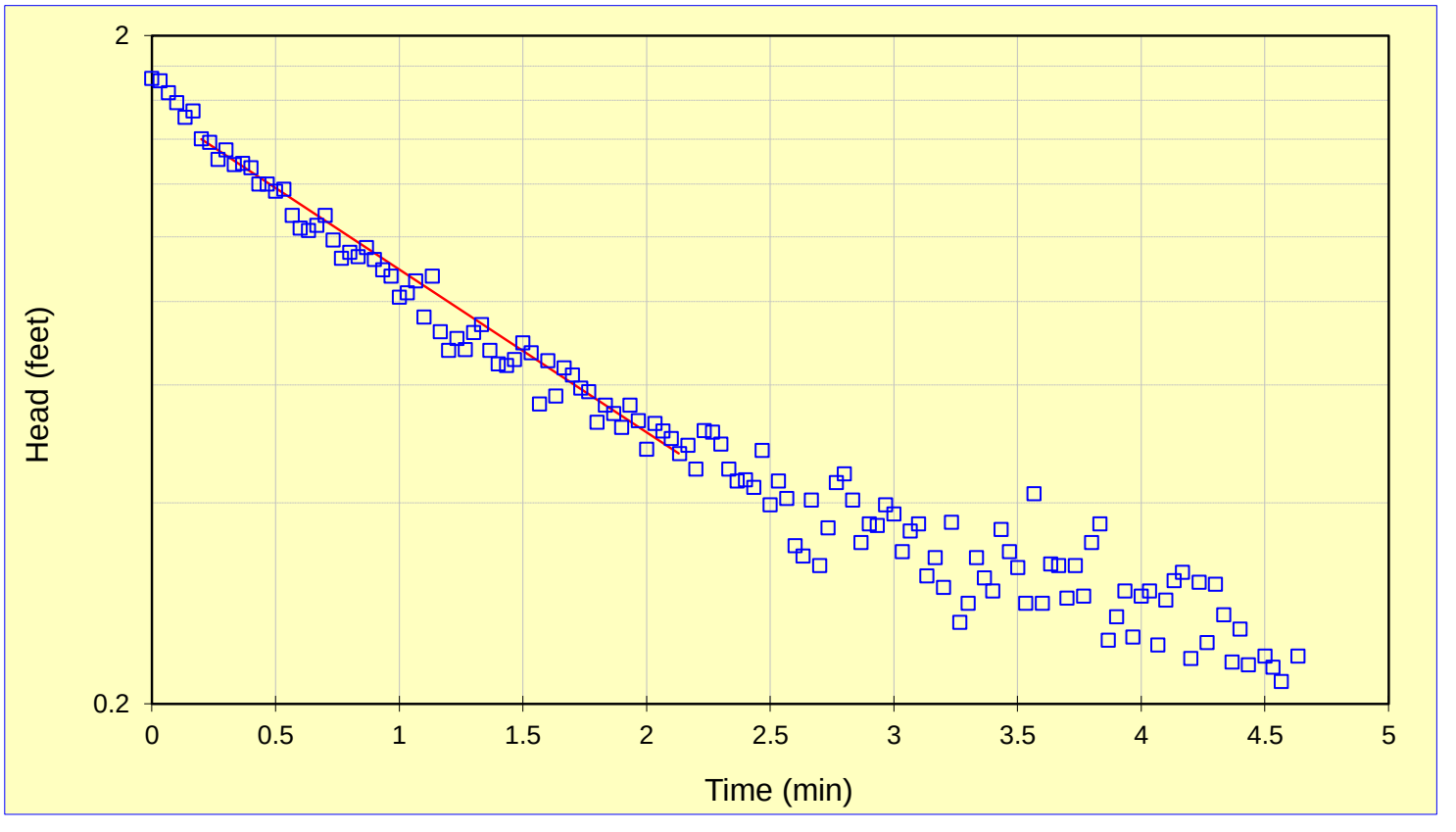
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-23 (TRANSDUCER TEST 1)

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
r_w =	0.14			
L_e =	7.1	K=	4.82E-04	cm/sec
$ln(R_e/r_w)$=	3.03	K=	1.37E+00	ft/day
y_0 =	1.50			
y_t =	0.474			
t =	2.1			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/24/12

Analysis By: ATK
Checked By:
Analysis Date: 8/2/2012

RISING HEAD TEST MW-23 (TRANSDUCER TEST 2) Electrolux, Jefferson, IA

WELL NO. RANSDUCE 103-87305

DATE	5/24/2012	
INITIAL DEPTH TO WATER	4.63	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	1.73	FEET (btoc)
BOTTOM OF OPEN INTERVAL	11.73	FEET (btoc)
SATURATED THICKNESS	7.1	FEET
WATER TABLE TO BOTTOM OF SCREEN	7.1	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	7.1	FEET
STATIC IN SCREEN?	Y	
MAX. HEAD CHANGE	1.95	FEET
MAX. HEAD IN SCREEN?	N	

EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
110.93	38.381			
110.97	38.374			
111.00	38.318			
111.03	36.43	0.000	1.951	1.00
111.07	36.62	0.033	1.761	0.90
111.10	36.656	0.067	1.725	0.88
111.13	36.745	0.100	1.636	0.84
111.17	36.772	0.133	1.609	0.82
111.20	36.747	0.167	1.634	0.84
111.23	36.842	0.200	1.539	0.79
111.27	36.853	0.233	1.528	0.78
111.30	36.867	0.267	1.514	0.78
111.33	36.942	0.300	1.439	0.74
111.37	37.044	0.333	1.337	0.69
111.40	37.026	0.367	1.355	0.69
111.43	37.032	0.400	1.349	0.69
111.47	37.055	0.433	1.326	0.68
111.50	37.096	0.467	1.285	0.66
111.53	37.139	0.500	1.242	0.64
111.57	37.107	0.533	1.274	0.65
111.60	37.191	0.567	1.190	0.61
111.63	37.164	0.600	1.217	0.62
111.67	37.23	0.633	1.151	0.59
111.70	37.275	0.667	1.106	0.57
111.73	37.25	0.700	1.131	0.58
111.77	37.286	0.733	1.095	0.56
111.80	37.363	0.767	1.018	0.52
111.83	37.223	0.800	1.158	0.59
111.87	37.329	0.833	1.052	0.54
111.90	37.431	0.867	0.950	0.49
111.93	37.379	0.900	1.002	0.51
111.97	37.447	0.933	0.934	0.48
112.00	37.388	0.967	0.993	0.51
112.03	37.499	1.000	0.882	0.45
112.07	37.443	1.033	0.938	0.48
112.10	37.458	1.067	0.923	0.47
112.13	37.551	1.100	0.830	0.43
112.17	37.542	1.133	0.839	0.43
112.20	37.551	1.167	0.830	0.43
112.23	37.601	1.200	0.780	0.40
112.27	37.513	1.233	0.868	0.44
112.30	37.683	1.267	0.698	0.36
112.33	37.554	1.300	0.827	0.42
112.37	37.554	1.333	0.827	0.42
112.40	37.545	1.367	0.836	0.43
112.43	37.617	1.400	0.764	0.39
112.47	37.604	1.433	0.777	0.40
112.50	37.644	1.467	0.737	0.38
112.53	37.672	1.500	0.709	0.36
112.57	37.624	1.533	0.757	0.39
112.60	37.706	1.567	0.675	0.35
112.63	37.651	1.600	0.730	0.37
112.67	37.647	1.633	0.734	0.38
112.70	37.669	1.667	0.712	0.36
112.73	37.76	1.700	0.621	0.32
112.77	37.749	1.733	0.632	0.32
112.80	37.744	1.767	0.637	0.33
112.83	37.717	1.800	0.664	0.34
112.87	37.817	1.833	0.564	0.29

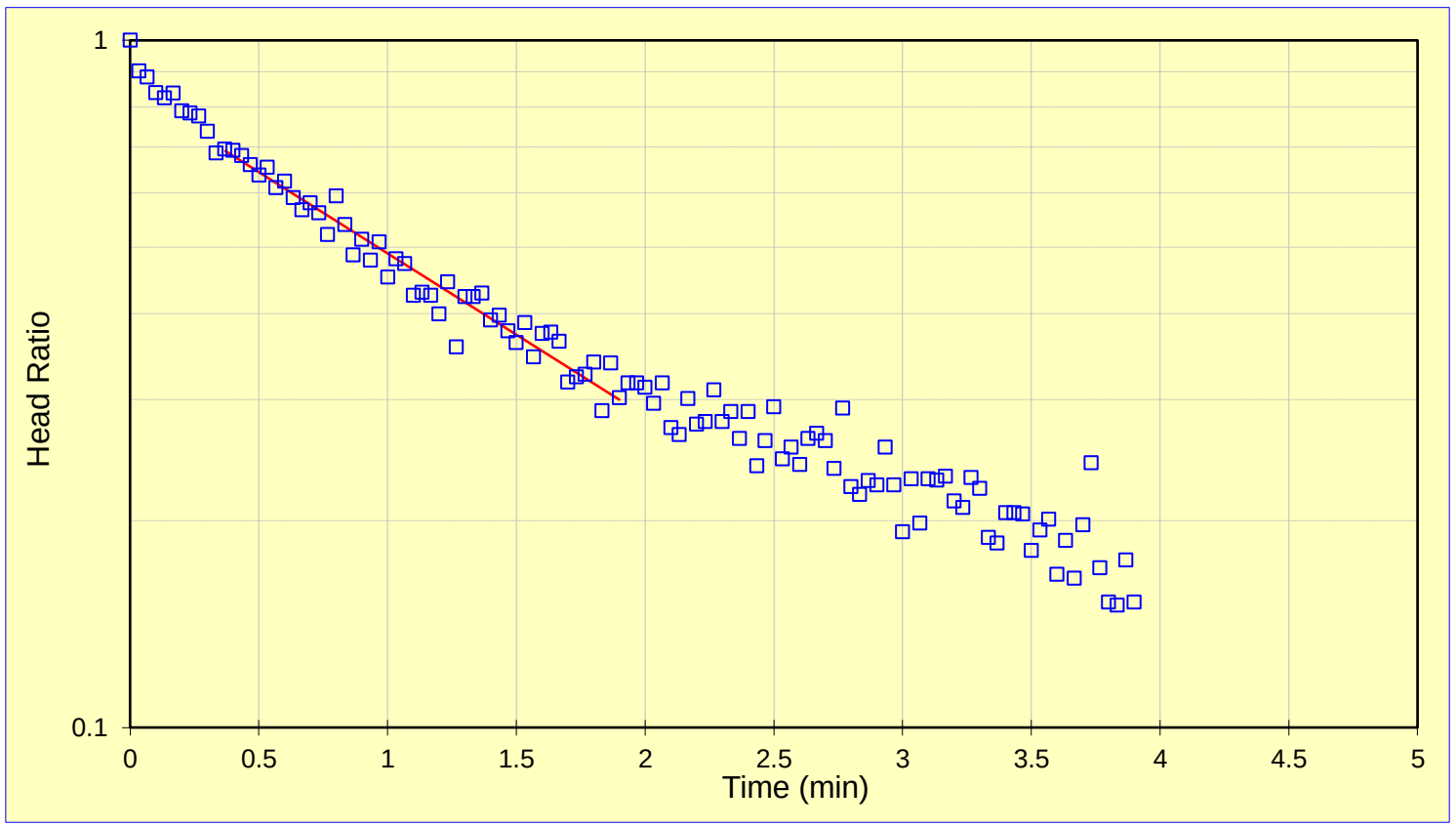
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
112.90	37.719	1.867	0.662	0.34
112.93	37.792	1.900	0.589	0.30
112.97	37.762	1.933	0.619	0.32
113.00	37.762	1.967	0.619	0.32
113.03	37.771	2.000	0.610	0.31
113.07	37.803	2.033	0.578	0.30
113.10	37.762	2.067	0.619	0.32
113.13	37.848	2.100	0.533	0.27
113.17	37.86	2.133	0.521	0.27
113.20	37.794	2.167	0.587	0.30
113.23	37.842	2.200	0.539	0.28
113.27	37.837	2.233	0.544	0.28
113.30	37.776	2.267	0.605	0.31
113.33	37.837	2.300	0.544	0.28
113.37	37.819	2.333	0.562	0.29
113.40	37.867	2.367	0.514	0.26
113.43	37.819	2.400	0.562	0.29
113.47	37.912	2.433	0.469	0.24
113.50	37.871	2.467	0.510	0.26
113.53	37.81	2.500	0.571	0.29
113.57	37.901	2.533	0.480	0.25
113.60	37.882	2.567	0.499	0.26
113.63	37.91	2.600	0.471	0.24
113.67	37.867	2.633	0.514	0.26
113.70	37.858	2.667	0.523	0.27
113.73	37.871	2.700	0.510	0.26
113.77	37.916	2.733	0.465	0.24
113.80	37.812	2.767	0.569	0.29
113.83	37.944	2.800	0.437	0.22
113.87	37.955	2.833	0.426	0.22
113.90	37.935	2.867	0.446	0.23
113.93	37.941	2.900	0.440	0.23
113.97	37.882	2.933	0.499	0.26
114.00	37.941	2.967	0.440	0.23
114.03	38.005	3.000	0.376	0.19
114.07	37.932	3.033	0.449	0.23
114.10	37.994	3.067	0.387	0.20
114.13	37.932	3.100	0.449	0.23
114.17	37.934	3.133	0.447	0.23
114.20	37.928	3.167	0.453	0.23
114.23	37.964	3.200	0.417	0.21
114.27	37.973	3.233	0.408	0.21
114.30	37.93	3.267	0.451	0.23
114.33	37.946	3.300	0.435	0.22
114.37	38.012	3.333	0.369	0.19
114.40	38.019	3.367	0.362	0.19
114.43	37.98	3.400	0.401	0.21
114.47	37.98	3.433	0.401	0.21
114.50	37.982	3.467	0.399	0.20
114.53	38.028	3.500	0.353	0.18
114.57	38.003	3.533	0.378	0.19
114.60	37.989	3.567	0.392	0.20
114.63	38.055	3.600	0.326	0.17
114.67	38.016	3.633	0.365	0.19
114.70	38.059	3.667	0.322	0.17
114.73	37.996	3.700	0.385	0.20
114.77	37.907	3.733	0.474	0.24
114.80	38.048	3.767	0.333	0.17
114.83	38.084	3.800	0.297	0.15
114.87	38.087	3.833	0.294	0.15
114.90	38.039	3.867	0.342	0.18
114.93	38.084	3.900	0.297	0.15

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-23 (TRANSDUCER TEST 2)

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
R_e =	0.14			
L_e =	7.1	K=	6.35E-04	cm/sec
t_1 =	0.37	K=	1.80E+00	ft/day
t_2 =	1.9			
h_1/h_0 =	0.69			
h_2/h_0 =	0.30			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/24/12

Analysis By: ATK
Checked By: WAD
Analysis Date: 8/2/2012

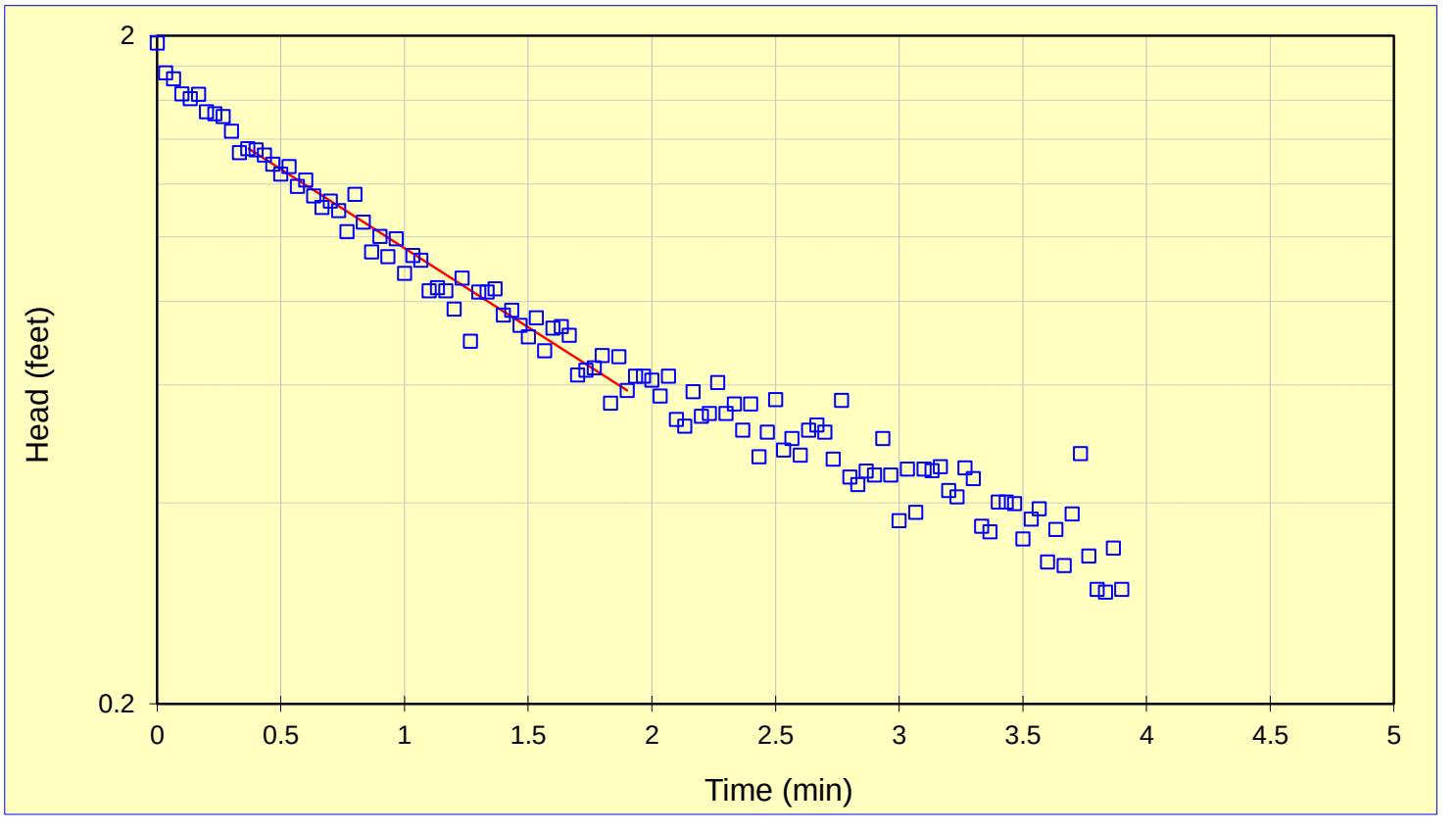
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-23 (TRANSDUCER TEST 2)

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.09			
r_w =	0.14			
L_e =	7.1	K=	4.52E-04	cm/sec
$\ln(R_e/r_w)$=	3.03	K=	1.28E+00	ft/day
y_0 =	1.54			
y_t =	0.589			
t =	1.9			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 05/24/12

Analysis By: ATK
Checked By: WAD
Analysis Date: 8/2/2012

RISING HEAD TEST MW-25D

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-25D	
DATE	12/11/2012	
INITIAL DEPTH TO WATER	18.26	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	23.71	FEET (btoc)
BOTTOM OF OPEN INTERVAL	28.71	FEET (btoc)
SATURATED THICKNESS	10.45	FEET
WATER TABLE TO BOTTOM OF SCREEN	10.45	FEET
EQUIVALENT DIAMETER	2.18	INCHES
OPEN INTERVAL LENGTH	5	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	10.05	FEET
MAX. HEAD IN SCREEN?	N	

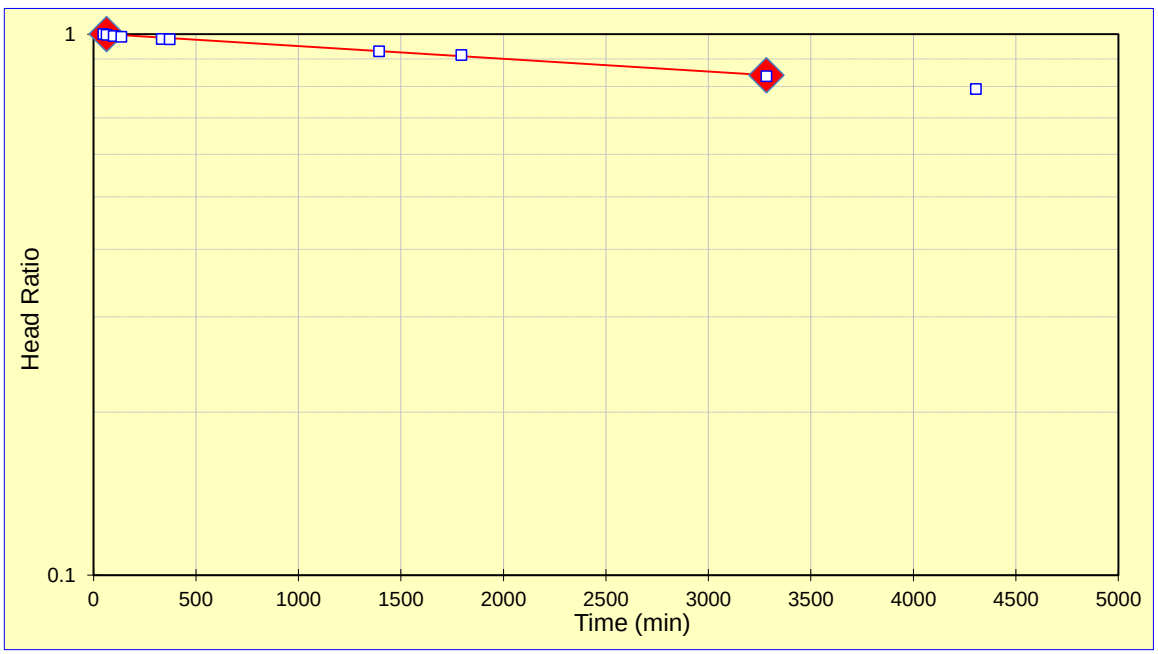
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
0.00	11.74	0.000	0.000	
27.00	3.37	27.000	8.370	
34.00	1.6	34.000	10.140	
39.00		39.000		
49.00	1.69	49.000	10.050	1.00
64.00	1.72	64.000	10.020	1.00
99.00	1.77	99.000	9.970	0.99
136.00	1.8	136.000	9.940	0.99
334.00	1.9	334.000	9.840	0.98
372.00	1.91	372.000	9.830	0.98
1394.00	2.4	1394.000	9.340	0.93
1796.00	2.54	1796.000	9.200	0.92
3284.00	3.34	3284.000	8.400	0.84
4306.00	3.78	4306.000	7.960	0.79

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-25D

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
- r_c = casing radius (feet)
- R_e = equivalent radius (feet)
- L_e = length of screened interval (feet)
- t = time (minutes)
- h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.06			
R_e =	0.14			
L_e =	5	K=	3.88E-08	cm/sec
t_1 =	64	K=	1.10E-04	ft/day
t_2 =	3284			
h_1/h_0 =	1.00			
h_2/h_0 =	0.84			



Project Name:	Electrolux, Jefferson, IA	Analysis By:	ATK
Project No.:	103-87305	Checked By:	DAC
Test Date:	12/11/12	Analysis Date:	4/4/2013

BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-25D

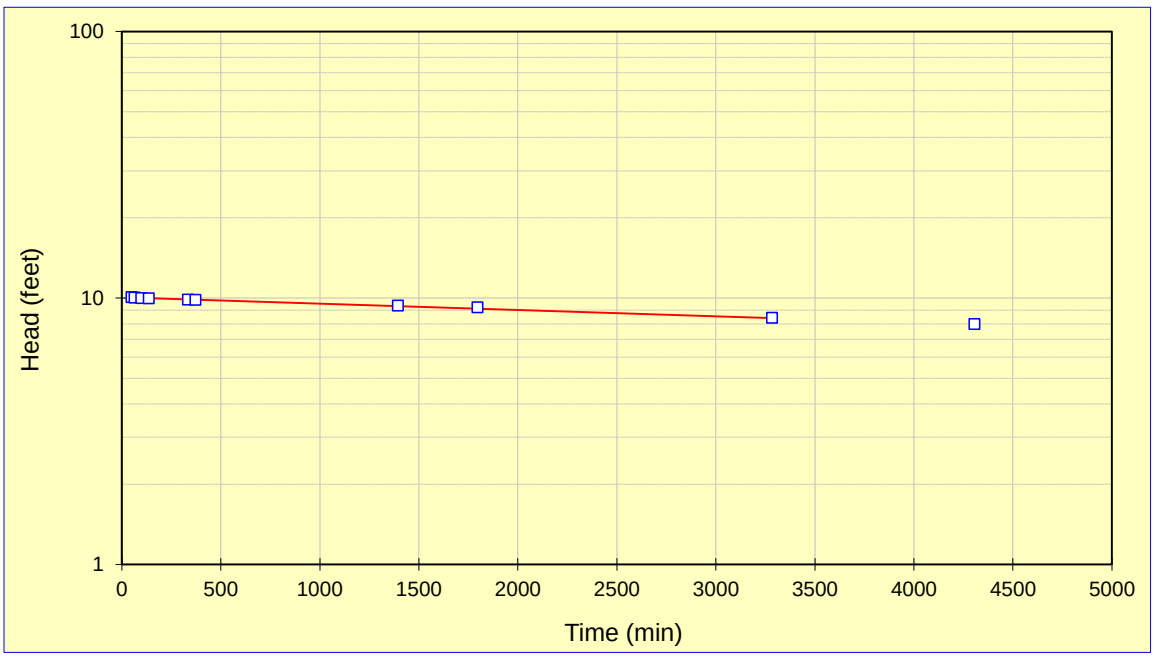
$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS	
r_c =	0.06
r_w =	0.14
L_e =	5
$\ln(R_e/r_w)$=	3.22
y_0 =	10.05
y_t =	8.400
t =	3284.0

RESULTS		
K=	3.50E-08	cm/sec
K=	9.91E-05	ft/day



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 12/11/12

Analysis By: ATK
Checked By: DAC
Analysis Date: 4/4/2013

RISING HEAD TEST MW-30

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-30	
DATE	12/11/2012	
TIAL DEPTH TO WATER	15.55	FEET (btoc)
CASING DIAMETER	1.5	INCHES
SAND DIAMETER	3.25	INCHES
OP OF OPEN INTERVAL	20.45	FEET (btoc)
OM OF OPEN INTERVAL	25.45	FEET (btoc)
ATURATED THICKNESS	9.9	FEET
O BOTTOM OF SCREEN	9.9	FEET
EQUIVALENT DIAMETER	2.18	INCHES
PEN INTERVAL LENGTH	5	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	9.72	FEET
MAX. HEAD IN SCREEN?	N	

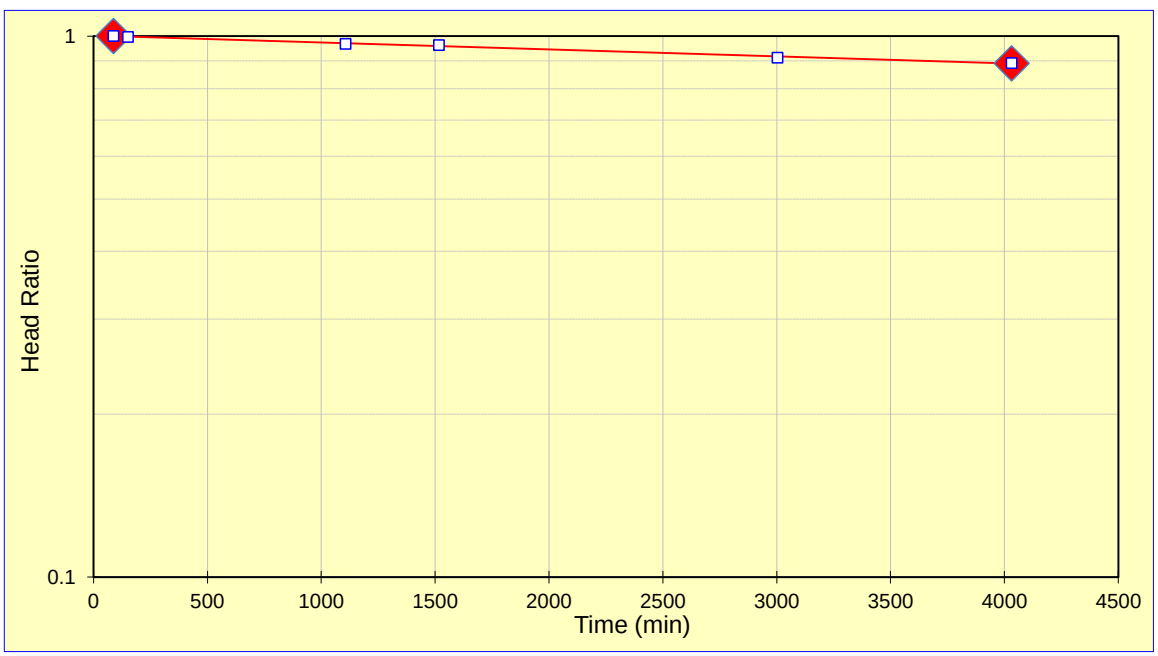
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
0.00	15.55	0.000	0.000	
		0.000		
		0.000		
		0.000		
88.00	25.27	88.000	9.720	1.00
152.00	25.23	152.000	9.680	1.00
1107.00	24.95	1107.000	9.400	0.97
1517.00	24.9	1517.000	9.350	0.96
3004.00	24.42	3004.000	8.870	0.91
4032.00	24.21	4032.000	8.660	0.89

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-30

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
- r_c = casing radius (feet)
- R_e = equivalent radius (feet)
- L_e = length of screened interval (feet)
- t = time (minutes)
- h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.06			
R_e =	0.14			
L_e =	5	K=	2.12E-08	cm/sec
t_1 =	88	K=	6.00E-05	ft/day
t_2 =	4032			
h_1/h_0 =	1.00			
h_2/h_0 =	0.89			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 12/11/12

Analysis By: ATK
Checked By: DAC
Analysis Date: 4/4/2013

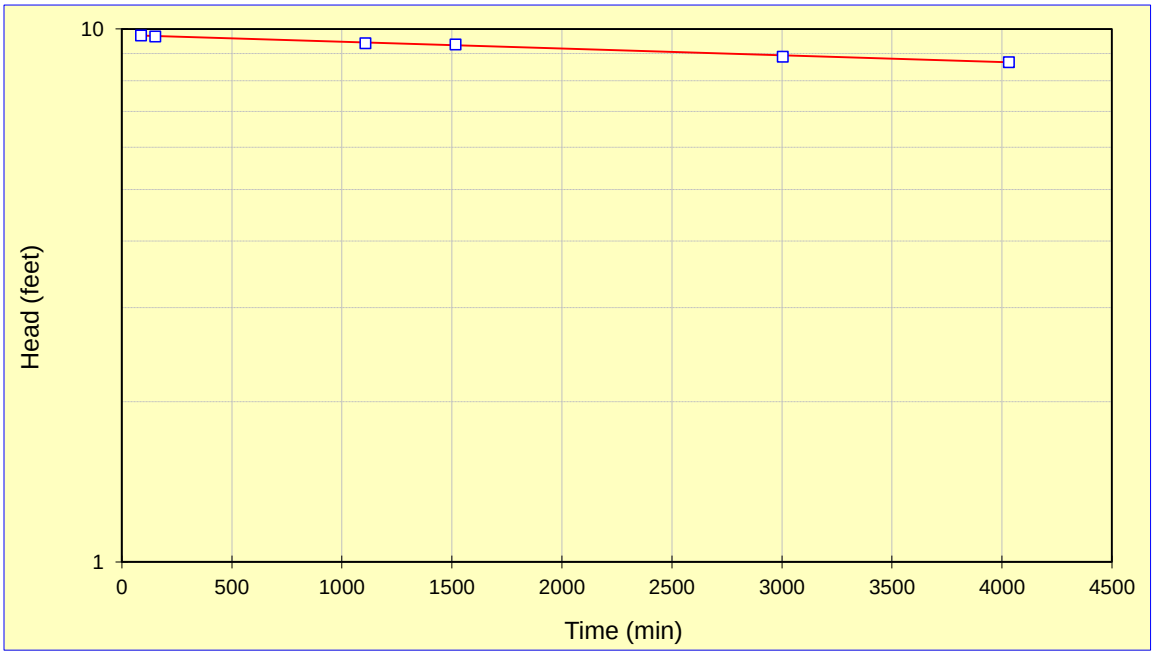
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-30

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.06			
r_w =	0.14			
L_e =	5	K=	1.85E-08	cm/sec
$\ln(R_e/r_w)$=	3.19	K=	5.25E-05	ft/day
y_0 =	9.74			
y_t =	8.660			
t =	4032.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 12/11/12

Analysis By: ATK
Checked By: DAC
Analysis Date: 4/4/2013

Electrolux, Jefferson, IA
103-87305

RISING HEAD TEST MW-43D

WELL NO.	MW-43D	
DATE	12/10/2012	
INITIAL DEPTH TO WATER	11.2	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	36	FEET (btoc)
BOTTOM OF OPEN INTERVAL	41	FEET (btoc)
SATURATED THICKNESS	29.8	FEET
WATER TABLE TO BOTTOM OF SCREEN	29.8	FEET
EQUIVALENT DIAMETER	2.44	INCHES
OPEN INTERVAL LENGTH	5	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	1.77	FEET
MAX. HEAD IN SCREEN?	Y	

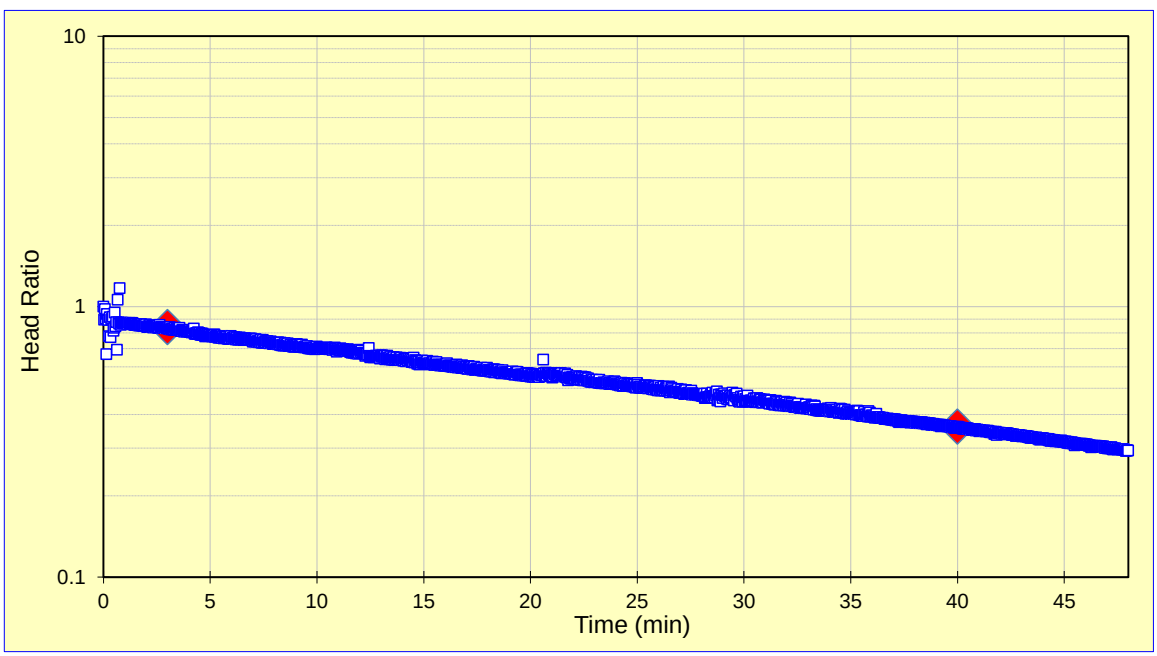
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
47.50	10.9504902			
47.53	10.9504902			
47.57	9.9678532			
47.60	9.177008	0.000	1.773	1.00
47.63	9.3640642	0.033	1.586	0.89
47.67	9.212525	0.067	1.738	0.98
47.70	9.3498574	0.100	1.601	0.90
47.74	9.7665902	0.136	1.184	0.67
47.77	9.2859268	0.167	1.665	0.94
47.80	9.3616964	0.200	1.589	0.90
47.83	9.366432	0.233	1.584	0.89
47.87	9.5724306	0.267	1.378	0.78
47.90	9.3285472	0.303	1.622	0.91
47.93	9.5842696	0.333	1.366	0.77
47.97	9.3640642	0.367	1.586	0.89
48.00	9.3498574	0.400	1.601	0.90
48.03	9.3214438	0.433	1.629	0.92
48.07	9.5061322	0.470	1.444	0.81
48.10	9.4682474	0.500	1.482	0.84
48.13	9.2646166	0.533	1.686	0.95
48.17	9.4516728	0.567	1.499	0.85
48.20	9.3948456	0.600	1.556	0.88
48.24	9.721602	0.636	1.229	0.69
48.27	9.0680892	0.667	1.882	1.06
48.30	9.3995812	0.700	1.551	0.87
48.33	9.4161558	0.733	1.534	0.87
48.37	8.8762974	0.767	2.074	1.17
48.40	9.4303626	0.803	1.520	0.86
48.43	9.4066846	0.833	1.544	0.87
48.47	9.4043168	0.867	1.546	0.87
48.50	9.4090524	0.900	1.541	0.87
48.53	9.4066846	0.933	1.544	0.87
48.57	9.413788	0.970	1.537	0.87
48.60	9.413788	1.000	1.537	0.87
48.63	9.4090524	1.033	1.541	0.87

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-43D

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.14			
L_e =	5	K=	2.92E-05	cm/sec
t_1 =	3	K=	8.26E-02	ft/day
t_2 =	40			
h_1/h_0 =	0.84			
h_2/h_0 =	0.36			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 12/10/12

Analysis By: ATK
Checked By: DAC
Analysis Date: 4/4/2013

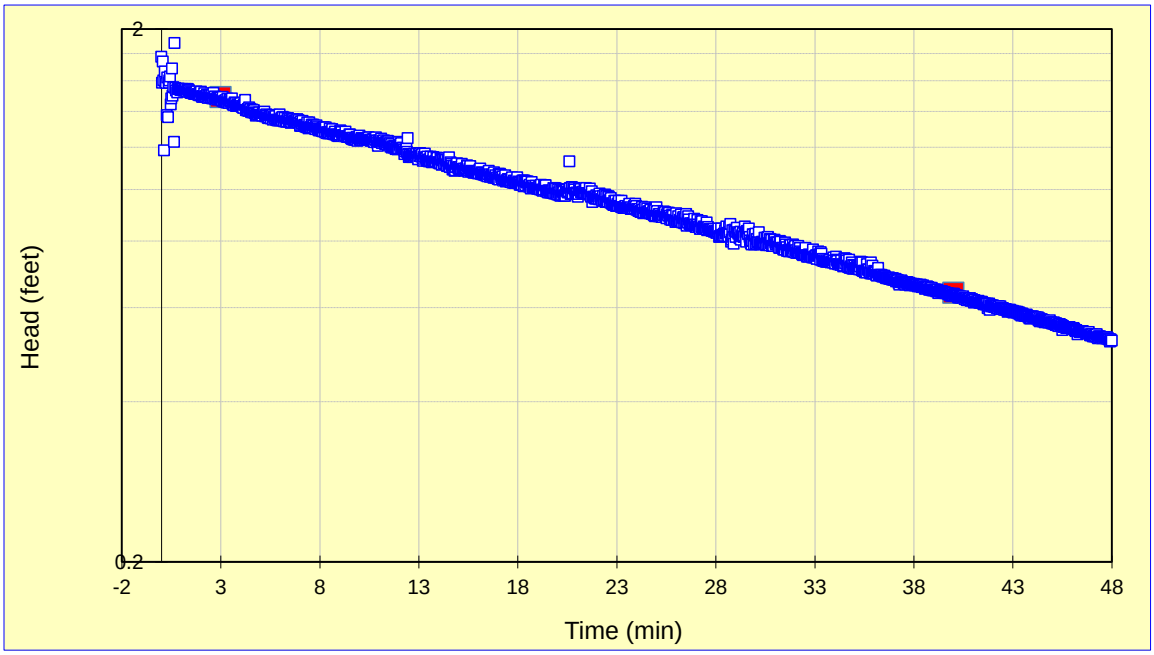
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-43D

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.14			
L_e =	5	K=	3.01E-05	cm/sec
$\ln(R_e/r_w)$=	3.83	K=	8.52E-02	ft/day
y_0 =	1.56			
y_t =	0.640			
t =	40.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 12/10/12

Analysis By: ATK
Checked By: DAC
Analysis Date: 4/4/2013

RISING HEAD TEST MW-46

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-46	
DATE	12/11/2012	
INITIAL DEPTH TO WATER	11.7	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	3.25	INCHES
TOP OF OPEN INTERVAL	36	FEET (btoc)
BOTTOM OF OPEN INTERVAL	41	FEET (btoc)
SATURATED THICKNESS	29.3	FEET
WATER TABLE TO BOTTOM OF SCREEN	29.3	FEET
EQUIVALENT DIAMETER	2.44	INCHES
OPEN INTERVAL LENGTH	5	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	4.95	FEET
MAX. HEAD IN SCREEN?	Y	

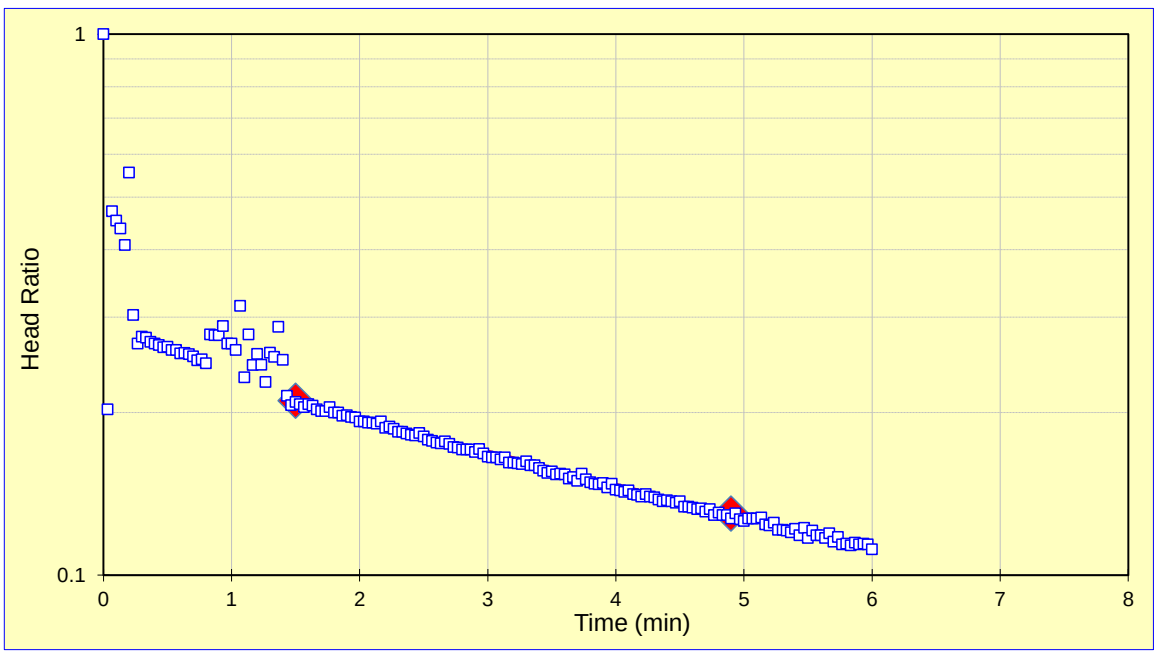
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
21.90	11.6583625			
21.93	11.6674925			
21.97	11.651515			
22.00	6.7099025	0.000	4.948	1.00
22.03	10.656345	0.033	1.002	0.20
22.07	9.3302125	0.067	2.328	0.47
22.10	9.4215125	0.100	2.237	0.45
22.13	9.4945525	0.133	2.164	0.44
22.17	9.6406325	0.167	2.018	0.41
22.20	8.912515	0.200	2.746	0.55
22.23	10.1610425	0.233	1.497	0.30
22.27	10.33223	0.267	1.326	0.27
22.30	10.2934275	0.300	1.365	0.28
22.33	10.2979925	0.333	1.360	0.27
22.37	10.3231	0.367	1.335	0.27
22.40	10.33223	0.400	1.326	0.27
22.43	10.34136	0.433	1.317	0.27
22.47	10.3527725	0.467	1.306	0.26
22.50	10.35049	0.500	1.308	0.26
22.53	10.36875	0.533	1.290	0.26
22.57	10.36875	0.567	1.290	0.26
22.60	10.38701	0.600	1.271	0.26
22.63	10.3847275	0.633	1.274	0.26
22.67	10.391575	0.667	1.267	0.26
22.70	10.4029875	0.700	1.255	0.25
22.73	10.42353	0.733	1.235	0.25
22.77	10.418965	0.767	1.239	0.25
22.80	10.4395075	0.800	1.219	0.25
22.83	10.2797325	0.833	1.379	0.28
22.87	10.2842975	0.867	1.374	0.28
22.90	10.2842975	0.900	1.374	0.28
22.93	10.2295175	0.933	1.429	0.29
22.97	10.33223	0.967	1.326	0.27
23.00	10.33223	1.000	1.326	0.27
23.03	10.36875	1.033	1.290	0.26

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-46

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.14			
L_e =	5	K=	1.80E-04	cm/sec
t_1 =	1.5	K=	5.09E-01	ft/day
t_2 =	4.9			
h_1/h_0 =	0.21			
h_2/h_0 =	0.13			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 12/11/12

Analysis By: ATK
Checked By: DAC
Analysis Date: 4/4/2013

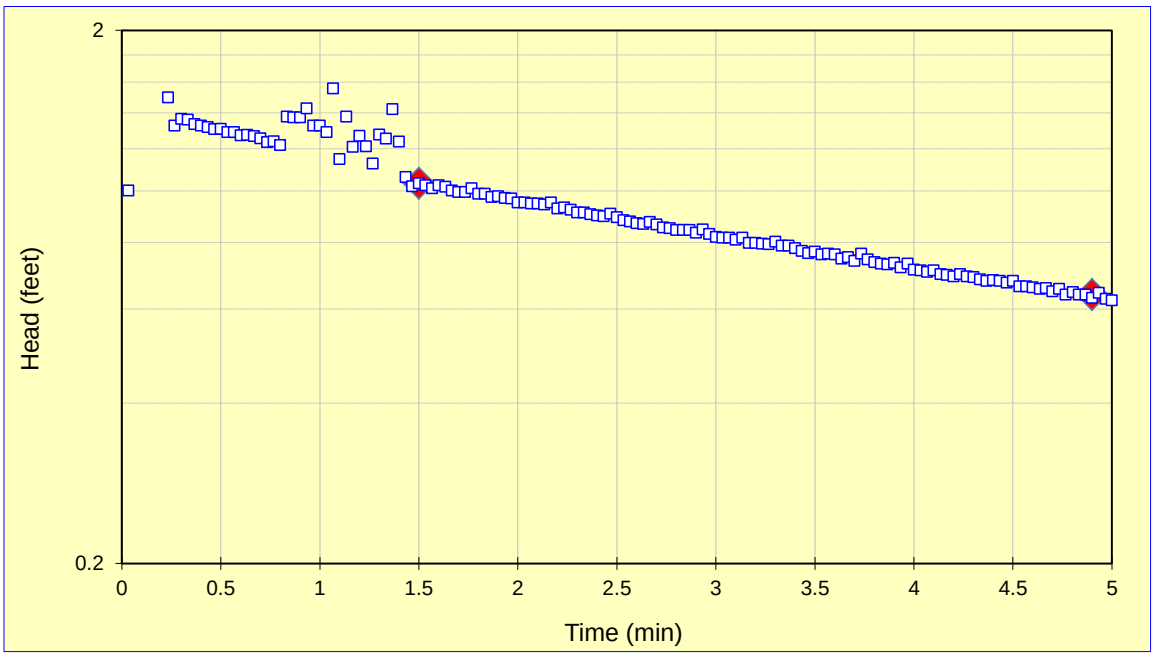
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-46

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.14			
L_e =	5	K=	1.75E-04	cm/sec
$\ln(R_e/r_w)$=	3.82	K=	4.97E-01	ft/day
y_0 =	1.21			
y_t =	0.639			
t =	4.9			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 12/11/12

Analysis By: ATK
Checked By: DAC
Analysis Date: 4/4/2013

FALLING HEAD TEST MW-56D

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-56D	
DATE	10/11/2013	
INITIAL DEPTH TO WATER	14.23	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	33.01	FEET (btoc)
BOTTOM OF OPEN INTERVAL	41.01	FEET (btoc)
SATURATED THICKNESS	26.78	FEET
WATER TABLE TO BOTTOM OF SCREEN	26.78	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	8	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	2.65	FEET
MAX. HEAD IN SCREEN?	Y	

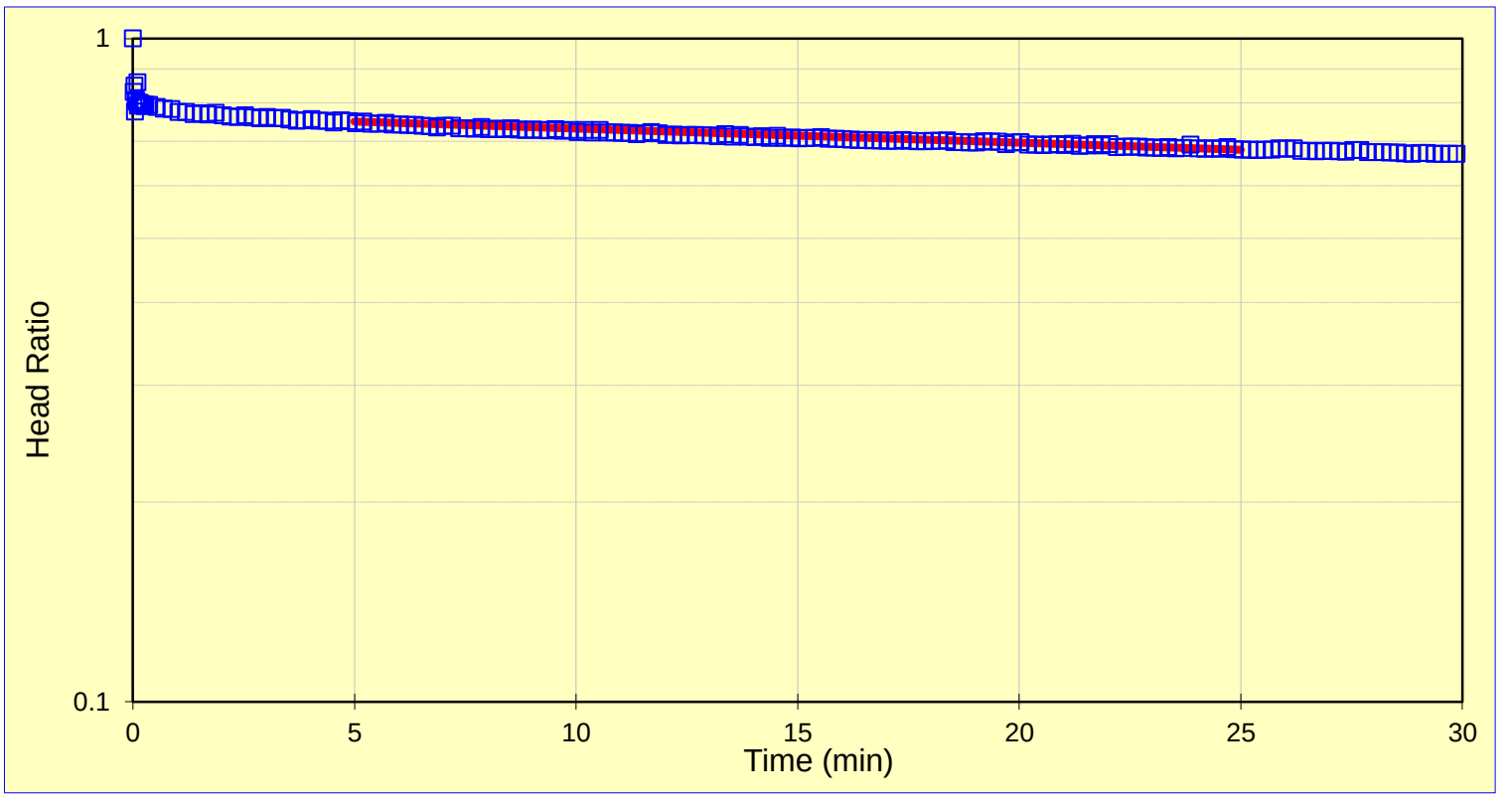
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
20.50	16.035			
20.52	16.341			
20.53	16.981			
20.55	18.113			
20.57	18.394			
20.58	18.475			
20.60	18.688	0.000	2.653	1.00
20.62	18.239	0.017	2.204	0.83
20.63	18.287	0.033	2.252	0.85
20.65	18.092	0.050	2.057	0.78
20.67	18.177	0.068	2.142	0.81
20.68	18.165	0.083	2.130	0.80
20.70	18.312	0.100	2.277	0.86
20.72	18.134	0.117	2.099	0.79
20.73	18.14	0.133	2.105	0.79
20.75	18.156	0.151	2.121	0.80
20.77	18.145	0.167	2.110	0.80
20.78	18.144	0.183	2.109	0.79
20.80	18.147	0.200	2.112	0.80
20.82	18.144	0.217	2.109	0.79
20.83	18.138	0.235	2.103	0.79
20.85	18.139	0.250	2.104	0.79
20.87	18.133	0.267	2.098	0.79
20.88	18.141	0.283	2.106	0.79

HVORSLEV SLUG TEST ANALYSIS
FALLING HEAD TEST MW-56D

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	8	K=	4.18E-06	cm/sec
t_1 =	5	K=	1.19E-02	ft/day
t_2 =	25			
h_1/h_0 =	0.75			
h_2/h_0 =	0.68			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/11/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/22/2013

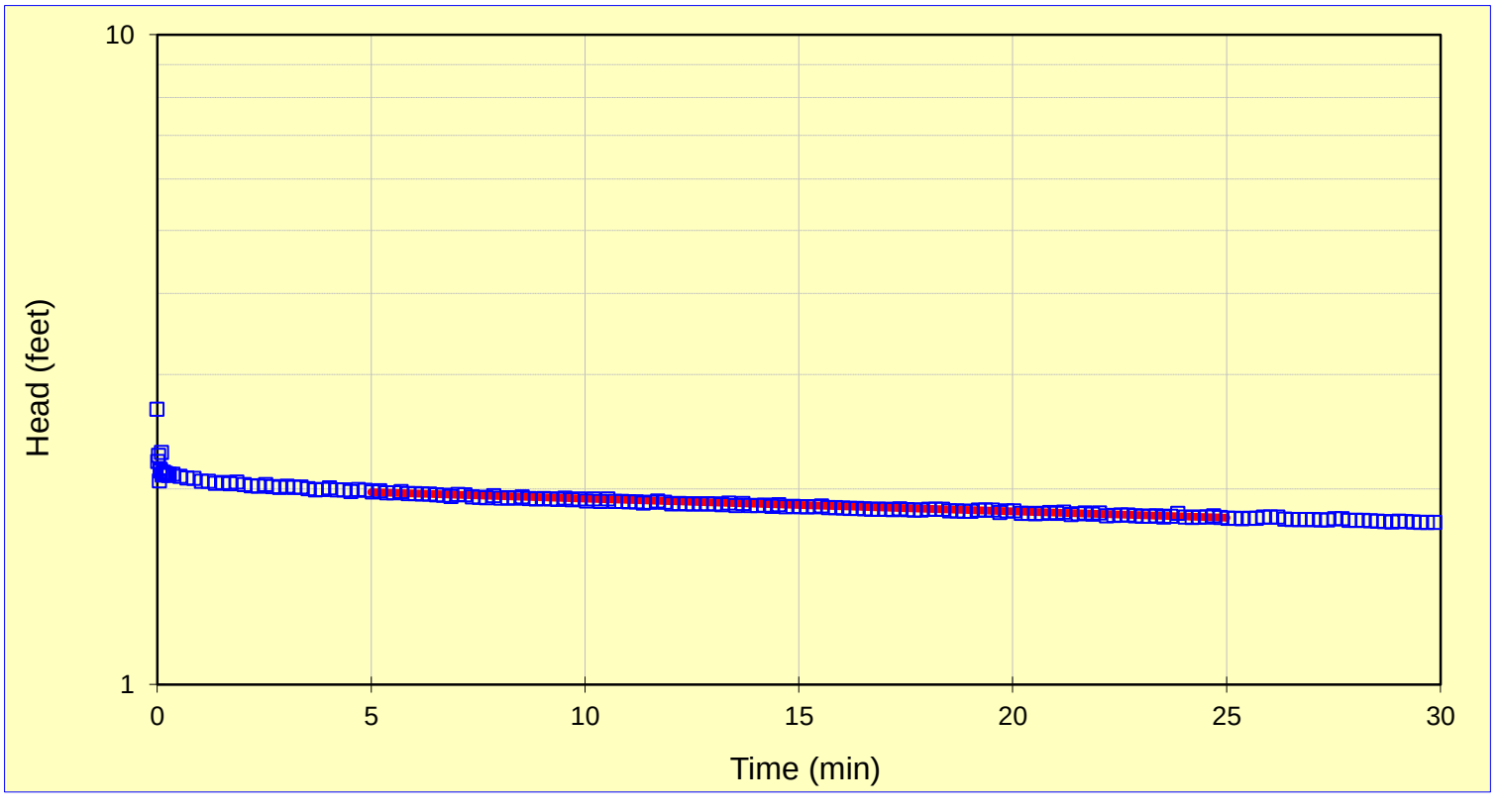
BOUWER AND RICE SLUG TEST ANALYSIS
FALLING HEAD TEST MW-56D

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	8	K=	3.66E-06	cm/sec
$\ln(R_e/r_w)$=	3.71	K=	1.04E-02	ft/day
y_0 =	2.02			
y_t =	1.806			
t =	25.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/11/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/23/2013

RISING HEAD TEST MW-56D

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-56D	
DATE	10/11/2013	
INITIAL DEPTH TO WATER	14.23	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	33.01	FEET (btoc)
BOTTOM OF OPEN INTERVAL	41.01	FEET (btoc)
SATURATED THICKNESS	26.78	FEET
WATER TABLE TO BOTTOM OF SCREEN	26.78	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	8	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	2.19	FEET
MAX. HEAD IN SCREEN?	Y	

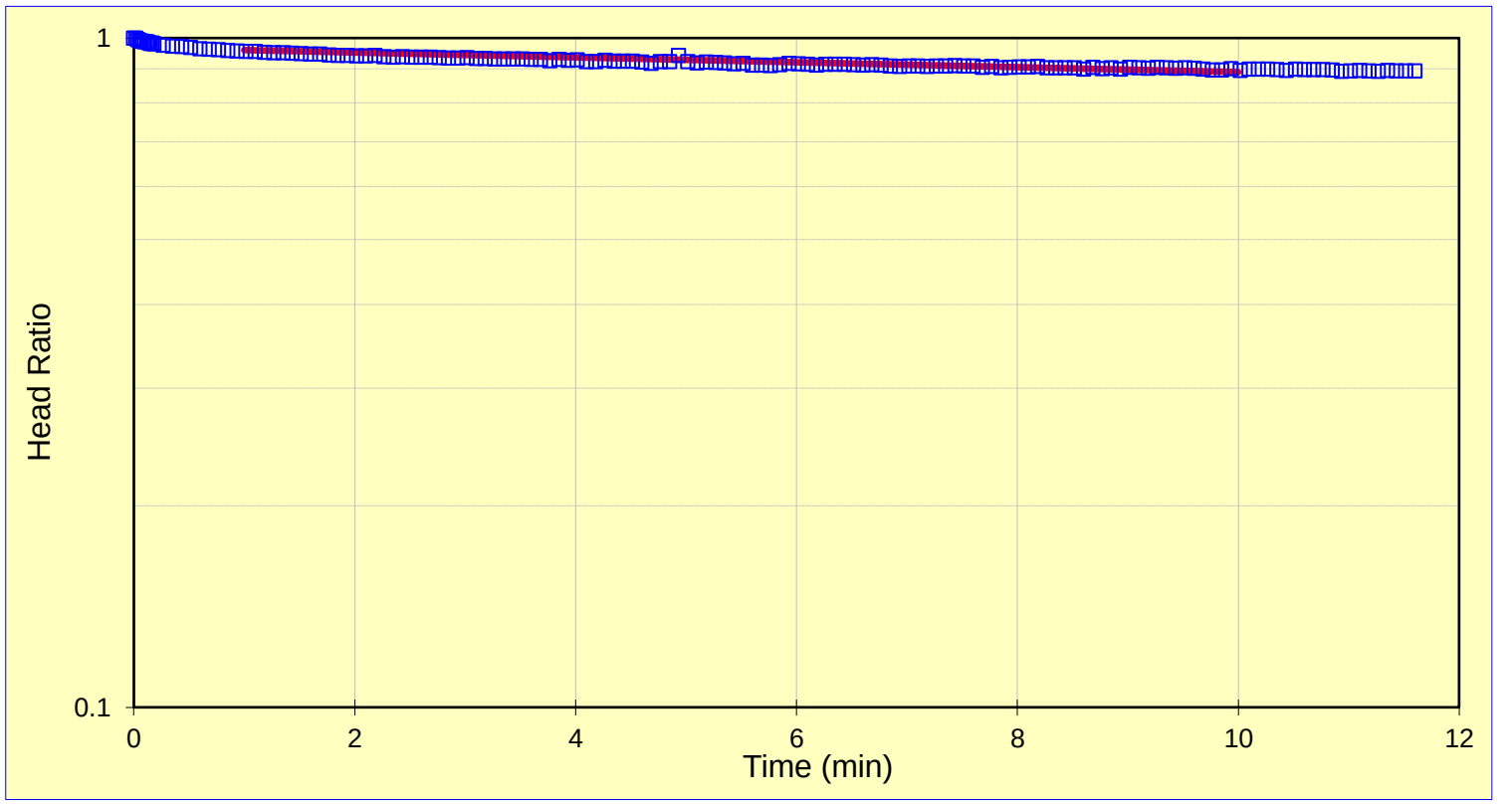
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
413.57	16.838			
413.58	16.838			
413.60	16.414			
413.62	16.101			
413.63	14.759			
413.65	14.617			
413.67	14.649	0.000	2.189	1.00
413.68	14.649	0.017	2.189	1.00
413.70	14.66	0.033	2.178	0.99
413.72	14.666	0.050	2.172	0.99
413.73	14.674	0.067	2.164	0.99
413.75	14.674	0.083	2.164	0.99
413.77	14.676	0.100	2.162	0.99
413.78	14.677	0.117	2.161	0.99
413.80	14.682	0.133	2.156	0.98
413.82	14.688	0.150	2.150	0.98
413.83	14.685	0.167	2.153	0.98
413.85	14.693	0.183	2.145	0.98

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-56D

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	8	K=	7.18E-06	cm/sec
t_1 =	1	K=	2.04E-02	ft/day
t_2 =	10			
h_1/h_0 =	0.96			
h_2/h_0 =	0.89			



Project Name:	Electrolux, Jefferson, IA	Analysis By:	ATK
Project No.:	103-87305	Checked By:	DAC
Test Date:	10/11/13	Analysis Date:	10/22/2013

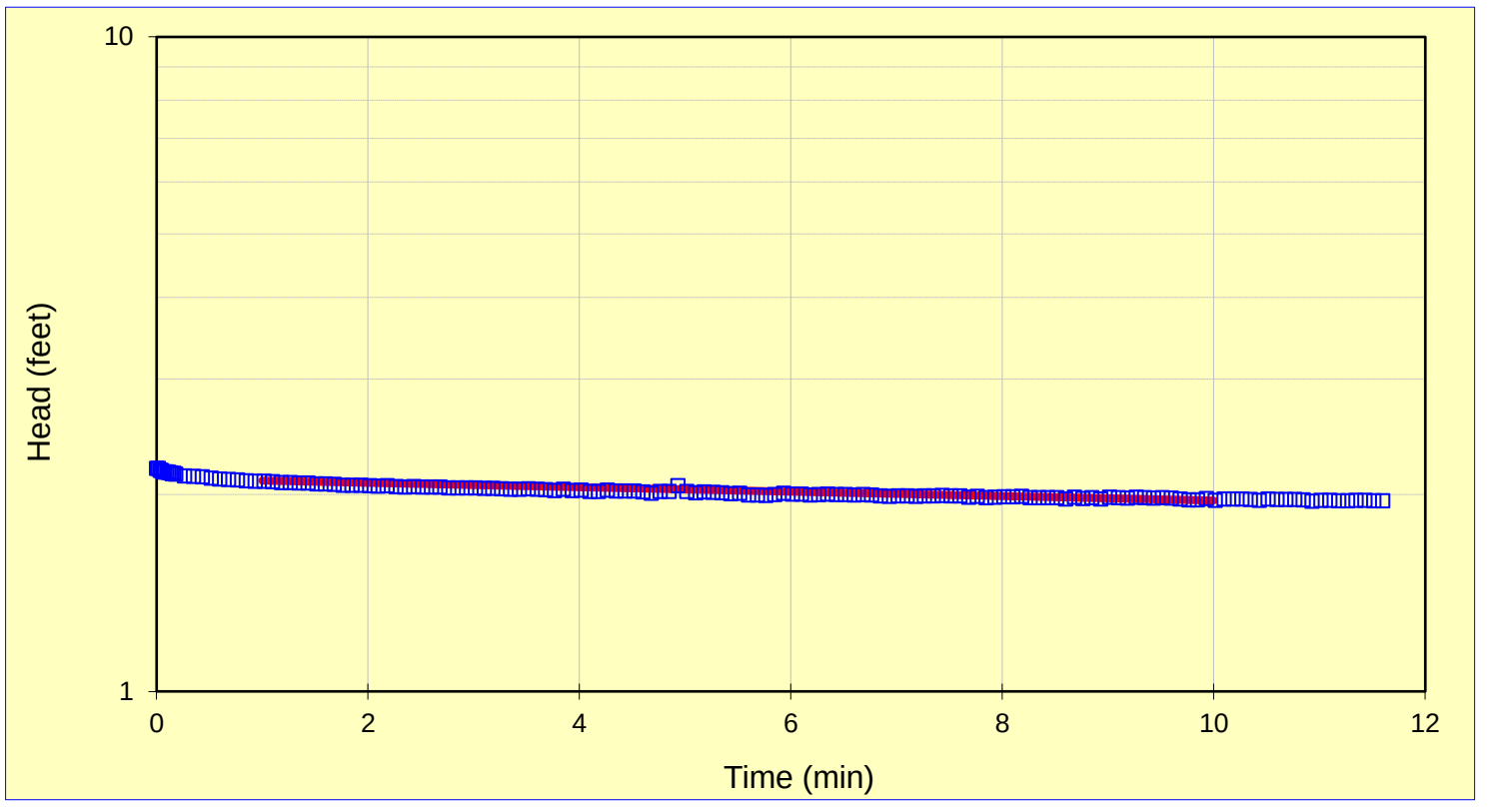
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-56D

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	8	K=	6.34E-06	cm/sec
$\ln(R_e/r_w)$=	3.71	K=	1.80E-02	ft/day
y_0 =	2.12			
y_t =	1.958			
t =	10.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/11/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/23/2013

RISING HEAD TEST MW-57

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-57	
DATE	10/9/2013	
INITIAL DEPTH TO WATER	11.25	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	29.92	FEET (btoc)
BOTTOM OF OPEN INTERVAL	37.42	FEET (btoc)
SATURATED THICKNESS	26.17	FEET
WATER TABLE TO BOTTOM OF SCREEN	26.17	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	7.5	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	1.65	FEET
MAX. HEAD IN SCREEN?	Y	

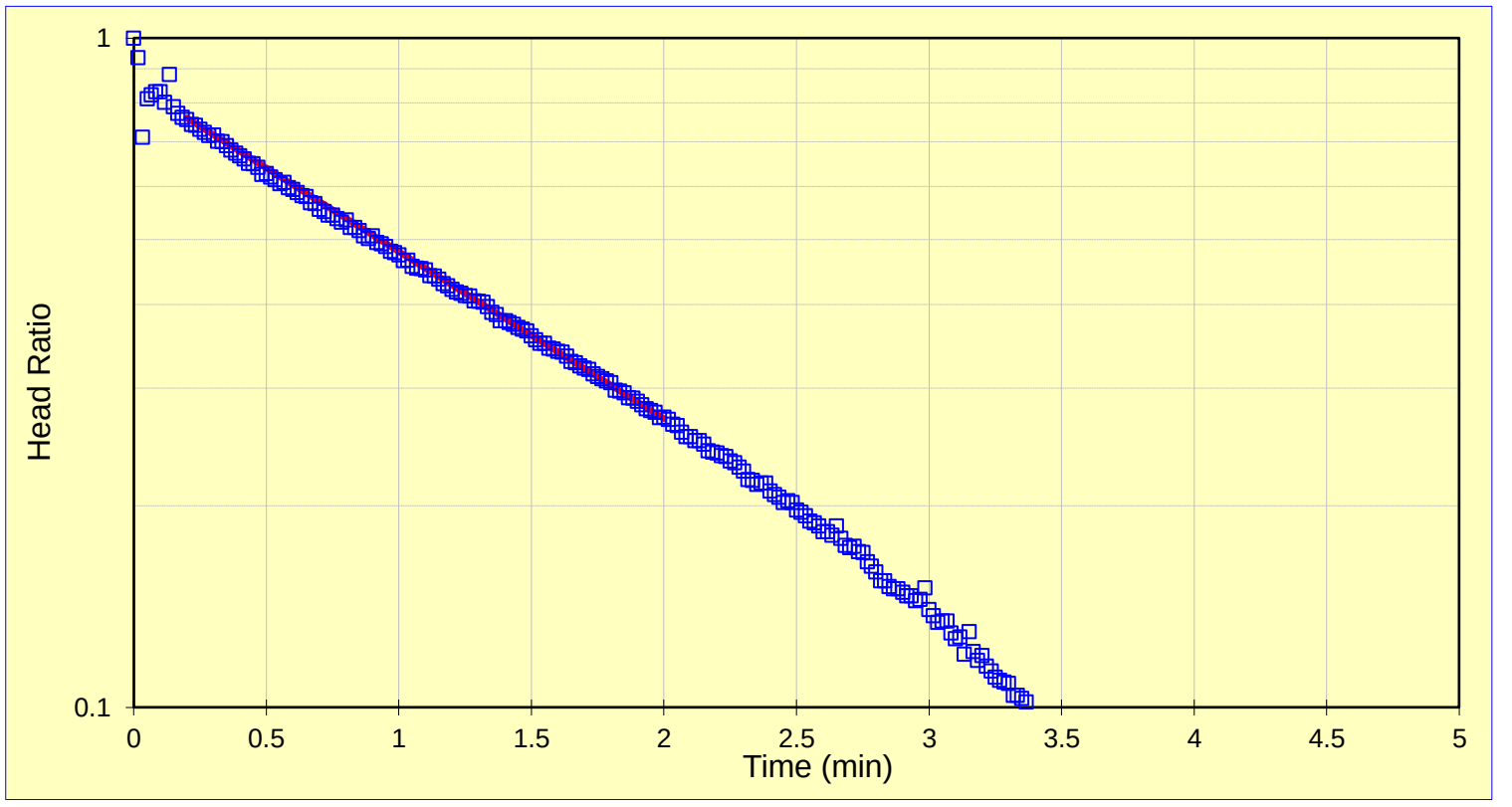
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
12.18	19.44			
12.20	20.52			
12.22	20.38			
12.23	21.35			
12.25	21.03			
12.27	20.82			
12.28	21.09	0.000	1.650	1.00
12.30	20.99	0.017	1.542	0.93
12.32	20.62	0.033	1.173	0.71
12.33	20.78	0.051	1.340	0.81
12.35	20.80	0.067	1.358	0.82
12.37	20.82	0.083	1.373	0.83
12.38	20.82	0.100	1.373	0.83
12.40	20.77	0.117	1.322	0.80
12.42	20.90	0.134	1.457	0.88
12.43	20.75	0.150	1.302	0.79
12.45	20.72	0.167	1.273	0.77
12.47	20.70	0.183	1.256	0.76
12.48	20.69	0.200	1.246	0.76
12.50	20.67	0.218	1.225	0.74
12.52	20.67	0.233	1.223	0.74
12.53	20.65	0.250	1.206	0.73
12.55	20.64	0.267	1.193	0.72
12.57	20.62	0.283	1.180	0.72
12.58	20.63	0.301	1.182	0.72
12.60	20.60	0.317	1.157	0.70
12.62	20.60	0.333	1.156	0.70
12.63	20.58	0.350	1.139	0.69
12.65	20.57	0.367	1.123	0.68
12.67	20.56	0.385	1.111	0.67
12.68	20.54	0.400	1.100	0.67
12.70	20.53	0.417	1.088	0.66
12.72	20.52	0.433	1.072	0.65
12.73	20.51	0.450	1.070	0.65
12.75	20.50	0.468	1.058	0.64
12.77	20.48	0.483	1.032	0.63

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-57

$$K = \frac{r_c^2}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right]$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	7.5	K=	5.15E-04	cm/sec
t_1 =	0.2	K=	1.46E+00	ft/day
t_2 =	2			
h_1/h_0 =	0.76			
h_2/h_0 =	0.27			



Project Name:	Electrolux, Jefferson, IA	Analysis By:	ATK
Project No.:	103-87305	Checked By:	DAC
Test Date:	10/09/13	Analysis Date:	10/24/2013

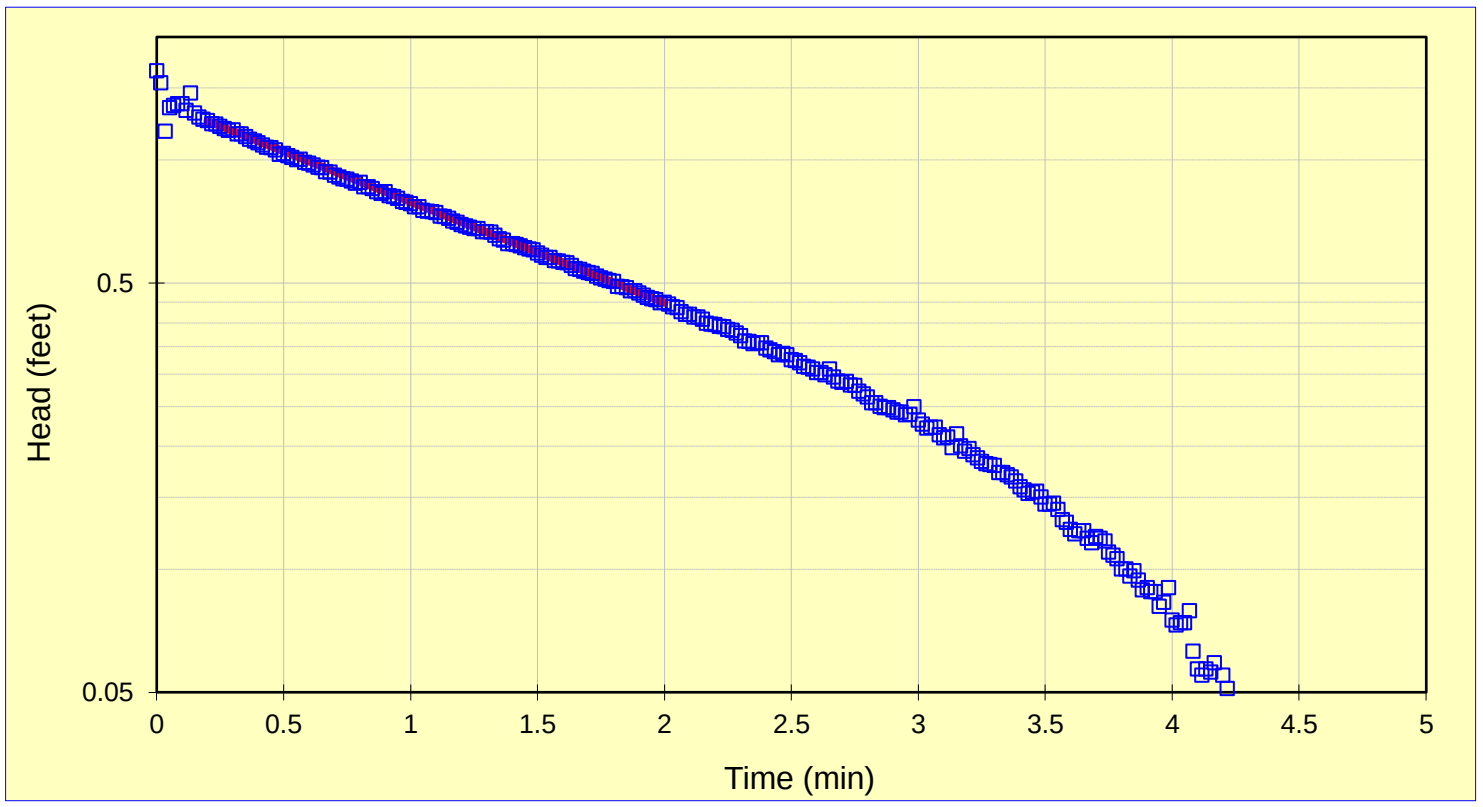
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-57

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	7.5	K=	4.73E-04	cm/sec
$\ln(R_e/r_w)$=	3.68	K=	1.34E+00	ft/day
y_0 =	1.33			
y_t =	0.448			
t =	2.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/09/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/24/2013

RISING HEAD TEST MW-57

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-57	
DATE	10/9/2013	
INITIAL DEPTH TO WATER	11.25	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	29.92	FEET (btoc)
BOTTOM OF OPEN INTERVAL	37.42	FEET (btoc)
SATURATED THICKNESS	26.17	FEET
WATER TABLE TO BOTTOM OF SCREEN	26.17	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	7.5	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	2.18	FEET
MAX. HEAD IN SCREEN?	Y	

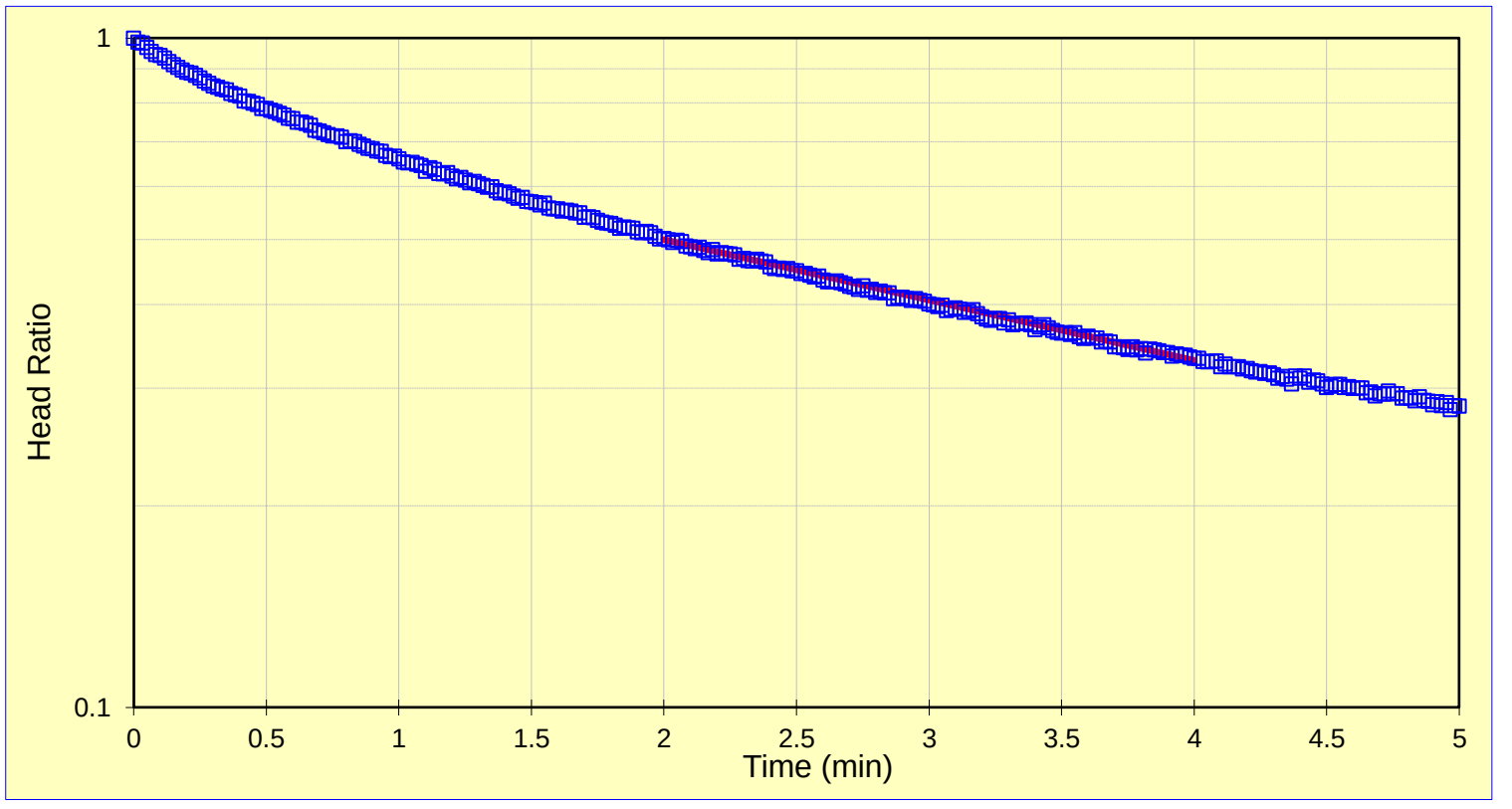
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
107.22	18.79			
107.23	18.57			
107.25	17.88			
107.27	18.65			
107.28	16.71			
107.30	16.57			
107.32	16.61	0.000	2.183	1.00
107.33	16.64	0.017	2.151	0.99
107.35	16.64	0.033	2.145	0.98
107.37	16.68	0.050	2.113	0.97
107.38	16.70	0.067	2.085	0.96
107.40	16.73	0.083	2.063	0.95
107.42	16.73	0.100	2.055	0.94
107.43	16.75	0.117	2.037	0.93
107.45	16.78	0.133	2.014	0.92
107.47	16.80	0.150	1.992	0.91
107.48	16.82	0.167	1.974	0.90
107.50	16.83	0.183	1.956	0.90
107.52	16.85	0.200	1.941	0.89
107.53	16.85	0.217	1.935	0.89
107.55	16.87	0.233	1.920	0.88
107.57	16.89	0.250	1.904	0.87
107.58	16.91	0.267	1.883	0.86
107.60	16.92	0.283	1.868	0.86
107.62	16.94	0.300	1.852	0.85
107.63	16.95	0.317	1.844	0.84
107.65	16.96	0.333	1.832	0.84
107.67	16.96	0.350	1.826	0.84
107.68	16.99	0.367	1.803	0.83
107.70	16.99	0.383	1.795	0.82
107.72	17.00	0.400	1.787	0.82

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-57

$$K = \frac{r_c^2}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right]$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	7.5	K=	1.86E-04	cm/sec
t_1 =	2	K=	5.27E-01	ft/day
t_2 =	4			
h_1/h_0 =	0.50			
h_2/h_0 =	0.33			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/09/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/24/2013

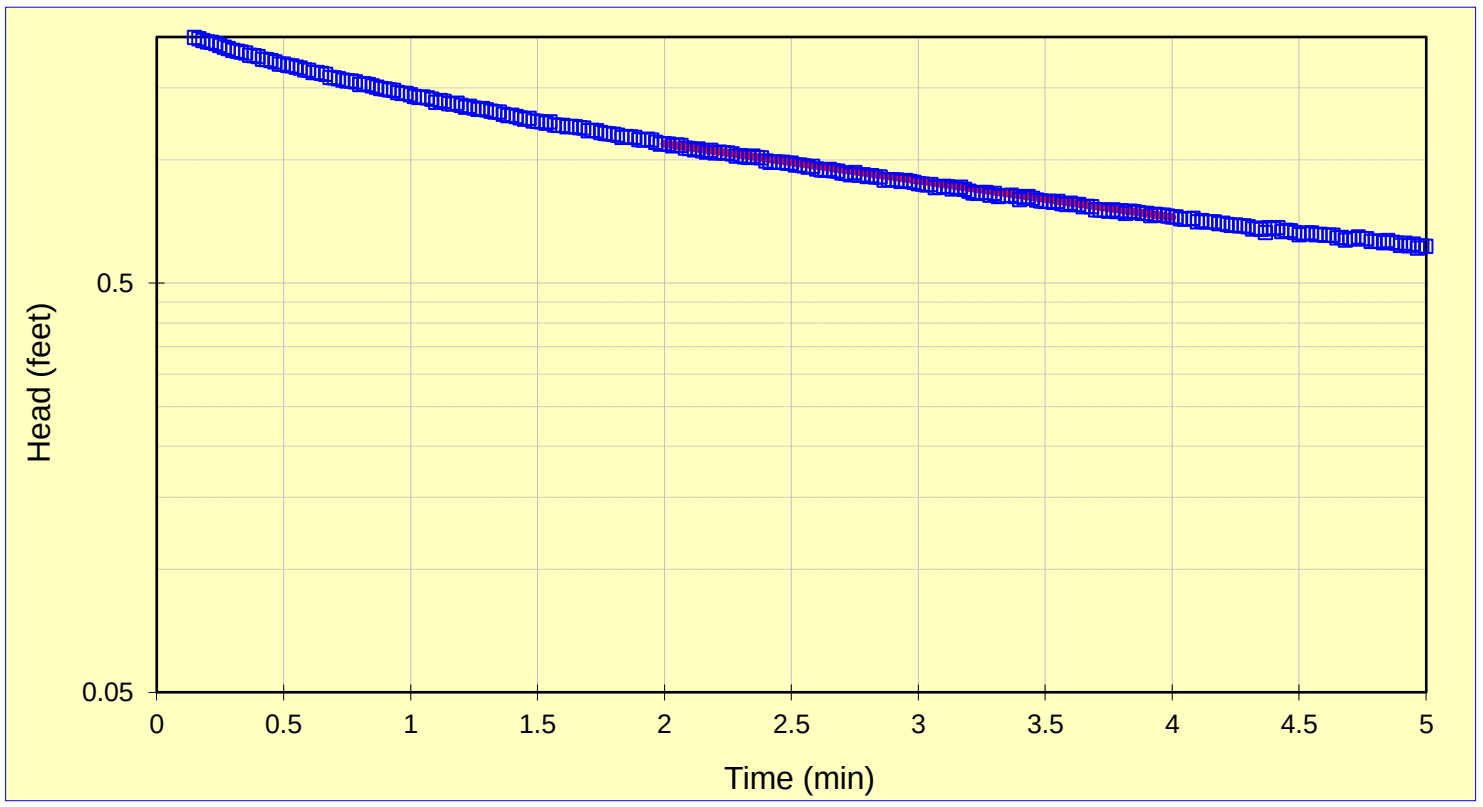
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-57

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	7.5	K=	1.53E-04	cm/sec
$\ln(R_e/r_w)$=	3.68	K=	4.33E-01	ft/day
y_0 =	1.47			
y_t =	0.725			
t =	4.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/09/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/24/2013

FALLING HEAD TEST MW-58

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-58	
DATE	10/9/2013	
INITIAL DEPTH TO WATER	11.6	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	31.75	FEET (btoc)
BOTTOM OF OPEN INTERVAL	39.75	FEET (btoc)
SATURATED THICKNESS	28.15	FEET
WATER TABLE TO BOTTOM OF SCREEN	28.15	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	8	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	2.46	FEET
MAX. HEAD IN SCREEN?	Y	

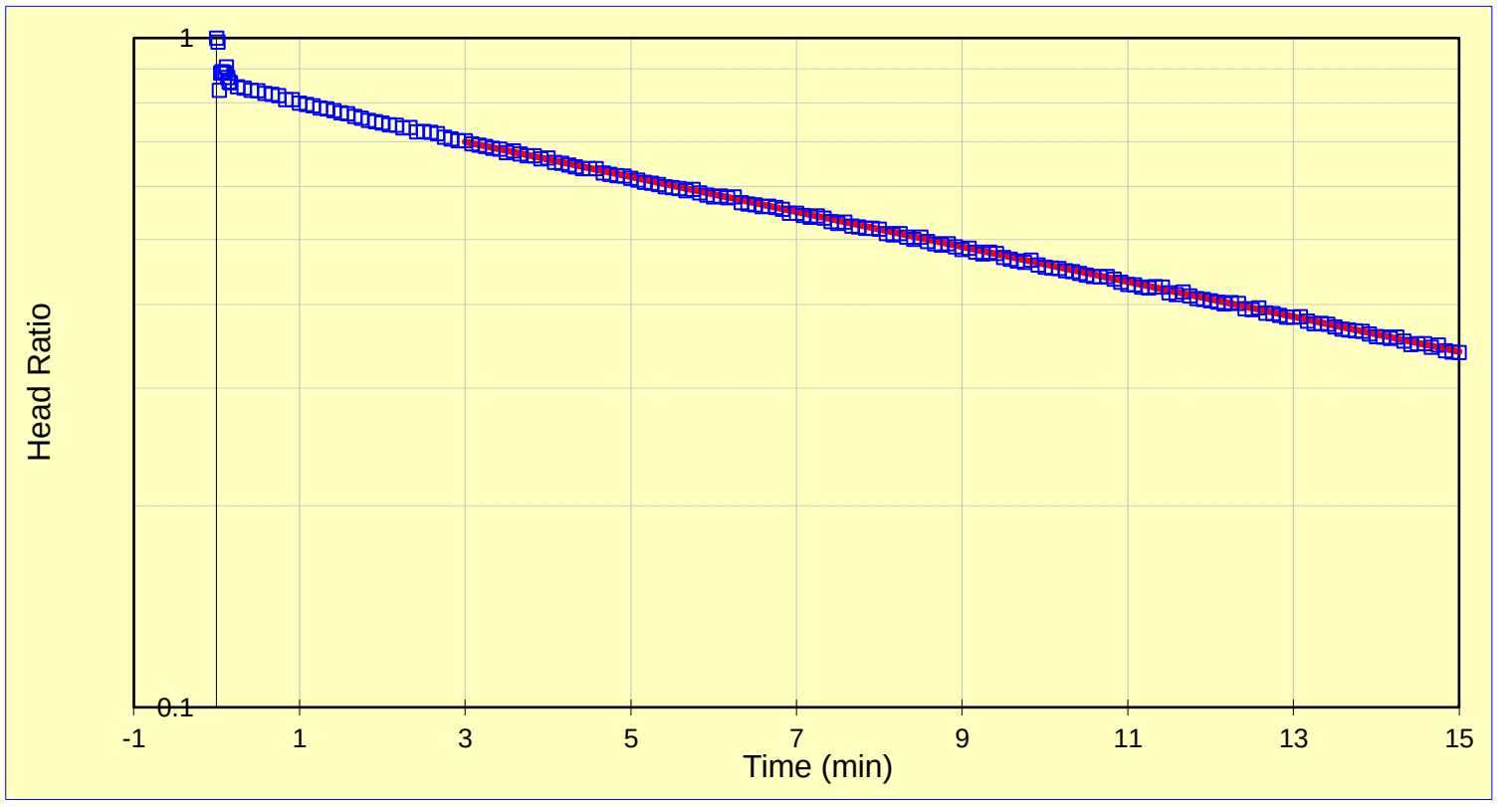
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
0.00	18.24			
16.85	18.24			
16.87	18.23			
16.88	18.88			
16.90	19.91			
16.92	20.06			
16.93	20.70	0.000	2.457	1.00
16.95	20.67	0.019	2.424	0.99
16.97	20.29	0.033	2.051	0.83
16.98	20.42	0.050	2.178	0.89
17.00	20.43	0.067	2.189	0.89
17.02	20.42	0.083	2.183	0.89
17.04	20.42	0.102	2.178	0.89
17.05	20.47	0.117	2.224	0.91
17.07	20.39	0.133	2.144	0.87
17.08	20.35	0.150	2.112	0.86
17.10	20.35	0.167	2.106	0.86
17.18	20.32	0.250	2.079	0.85
17.27	20.31	0.333	2.067	0.84

HVORSLEV SLUG TEST ANALYSIS
FALLING HEAD TEST MW-58

$$K = \frac{r_c^2}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right]$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	8	K=	5.14E-05	cm/sec
t_1 =	3	K=	1.46E-01	ft/day
t_2 =	15			
h_1/h_0 =	0.70			
h_2/h_0 =	0.34			



Project Name:	Electrolux, Jefferson, IA	Analysis By:	ATK
Project No.:	103-87305	Checked By:	DAC
Test Date:	10/09/13	Analysis Date:	10/24/2013

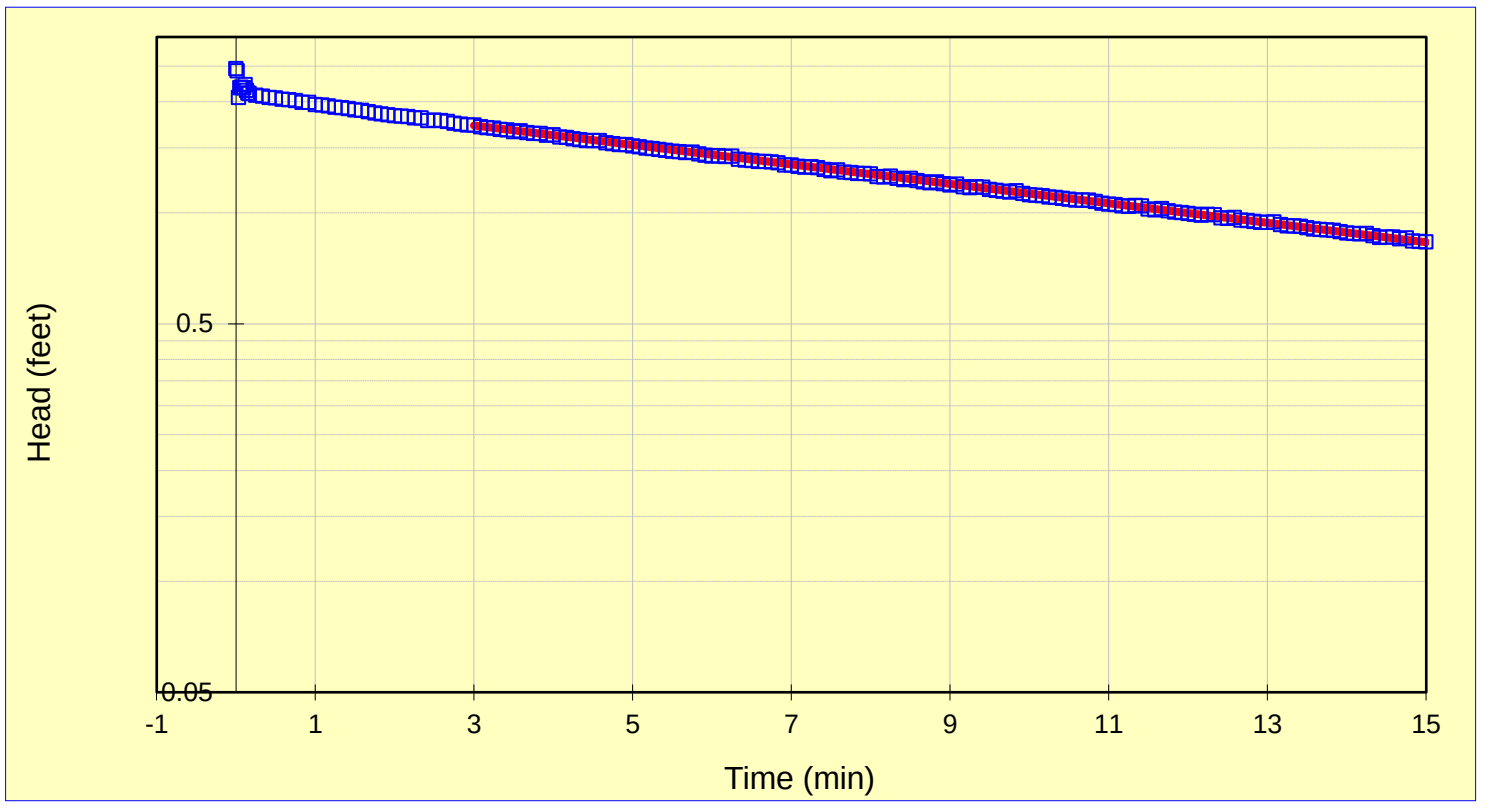
BOUWER AND RICE SLUG TEST ANALYSIS
FALLING HEAD TEST MW-58

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	8	K=	4.68E-05	cm/sec
$\ln(R_e/r_w)$=	3.74	K=	1.33E-01	ft/day
y_0 =	1.95			
y_t =	0.832			
t =	15.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/09/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/24/2013

FALLING HEAD TEST MW-58

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-58	
DATE	10/9/2013	
INITIAL DEPTH TO WATER	11.6	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	31.75	FEET (btoc)
BOTTOM OF OPEN INTERVAL	39.75	FEET (btoc)
SATURATED THICKNESS	28.15	FEET
:R TABLE TO BOTTOM OF SCREEN	28.15	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	8	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	2.46	FEET
MAX. HEAD IN SCREEN?	Y	

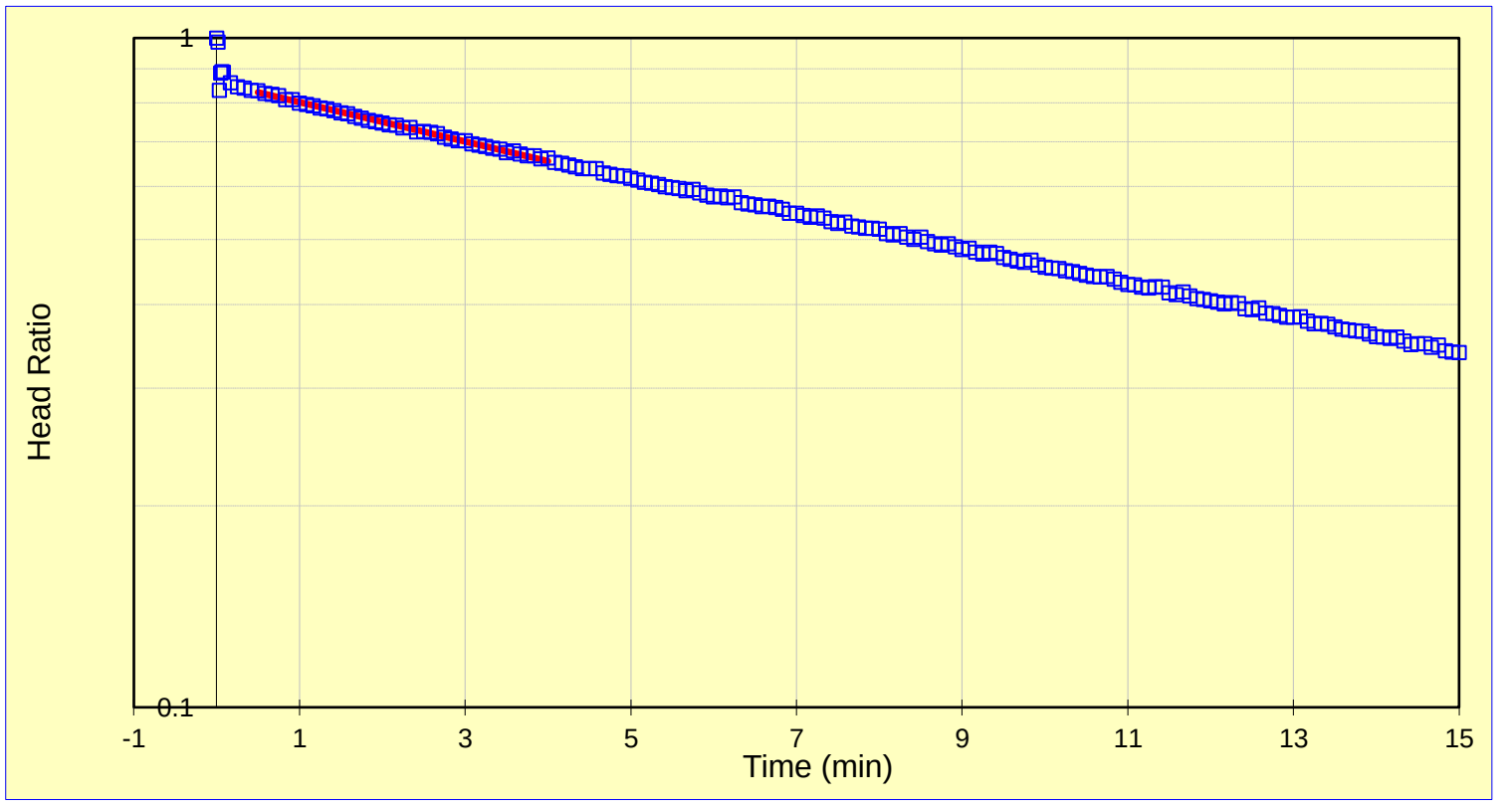
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
0.00	18.24			
16.85	18.24			
16.87	18.23			
16.88	18.88			
16.90	19.91			
16.92	20.06			
16.93	20.70	0.000	2.457	1.00
16.95	20.67	0.019	2.424	0.99
16.97	20.29	0.033	2.051	0.83
16.98	20.42	0.050	2.178	0.89
17.00	20.43	0.067	2.189	0.89
17.02	20.42	0.083	2.183	0.89
17.10	20.35	0.167	2.106	0.86
17.18	20.32	0.250	2.079	0.85
17.27	20.31	0.333	2.067	0.84
17.35	20.29	0.417	2.051	0.83
17.43	20.29	0.500	2.048	0.83

HVORSLEV SLUG TEST ANALYSIS
FALLING HEAD TEST MW-58

$$K = \frac{r_c^2}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right]$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	8	K=	5.77E-05	cm/sec
t_1 =	0.5	K=	1.64E-01	ft/day
t_2 =	4			
h_1/h_0 =	0.83			
h_2/h_0 =	0.66			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/09/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/24/2013

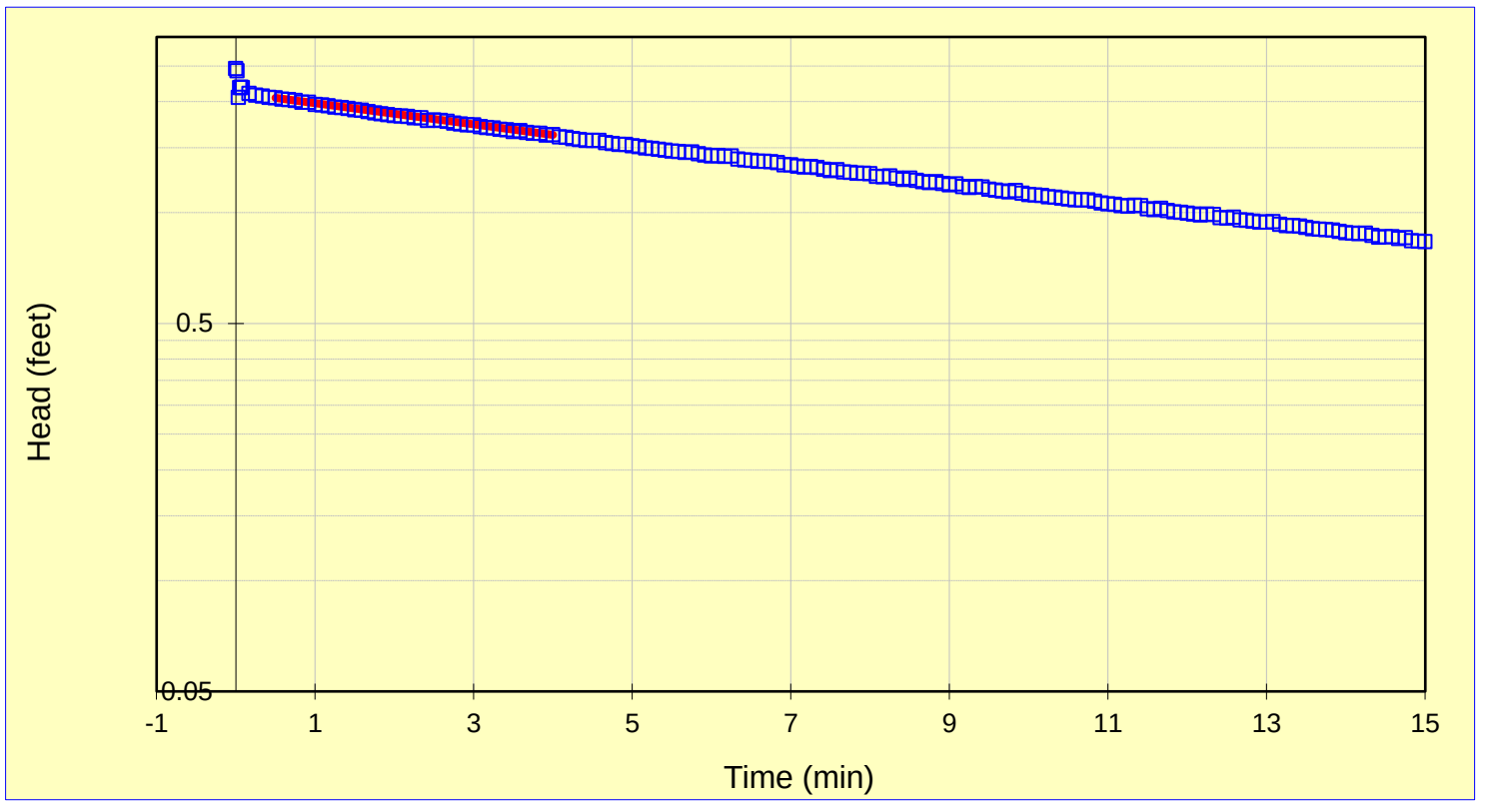
BOUWER AND RICE SLUG TEST ANALYSIS
FALLING HEAD TEST MW-58

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	8	K=	5.37E-05	cm/sec
$\ln(R_e/r_w)$=	3.74	K=	1.52E-01	ft/day
y_0 =	2.11			
y_t =	1.625			
t =	4.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/09/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/24/2013

FALLING HEAD TEST MW-61

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-61	
DATE	10/11/2013	
INITIAL DEPTH TO WATER	9.8	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	31.6	FEET (btoc)
BOTTOM OF OPEN INTERVAL	39.6	FEET (btoc)
SATURATED THICKNESS	29.8	FEET
WATER TABLE TO BOTTOM OF SCREEN	29.8	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	8	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	2.19	FEET
MAX. HEAD IN SCREEN?	Y	

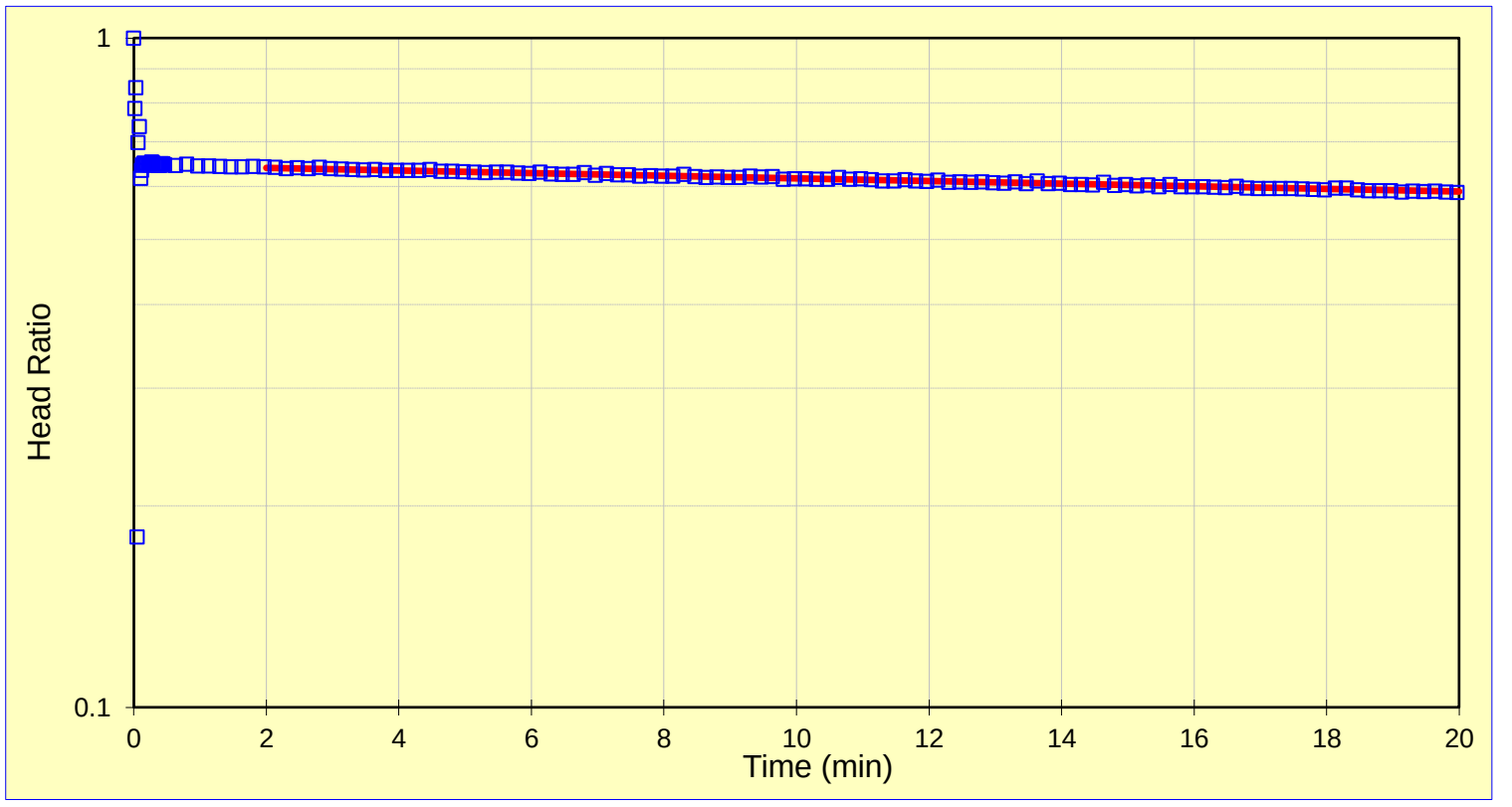
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
15.39	19.10			
15.40	19.11			
15.42	17.42			
15.43	22.38			
15.45	22.48	0.000	3.375	1.00
15.47	21.75	0.019	2.649	0.78
15.48	21.95	0.033	2.843	0.84
15.50	19.71	0.050	0.606	0.18
15.52	21.46	0.067	2.355	0.70
15.53	21.59	0.083	2.488	0.74
15.55	21.19	0.103	2.083	0.62
15.57	21.24	0.117	2.139	0.63
15.58	21.28	0.133	2.180	0.65
15.60	21.30	0.150	2.194	0.65
15.62	21.30	0.167	2.194	0.65
15.64	21.29	0.186	2.188	0.65
15.65	21.29	0.200	2.182	0.65
15.67	21.29	0.217	2.183	0.65
15.68	21.29	0.233	2.184	0.65
15.70	21.29	0.250	2.183	0.65
15.72	21.31	0.270	2.202	0.65
15.73	21.30	0.283	2.197	0.65
15.75	21.29	0.300	2.181	0.65
15.77	21.29	0.317	2.183	0.65
15.78	21.29	0.333	2.184	0.65
15.80	21.29	0.353	2.181	0.65
15.82	21.29	0.367	2.181	0.65
15.83	21.28	0.383	2.179	0.65
15.85	21.28	0.400	2.179	0.65
15.87	21.29	0.417	2.190	0.65
15.89	21.29	0.436	2.189	0.65
15.90	21.28	0.450	2.180	0.65
15.92	21.29	0.467	2.183	0.65

HVORSLEV SLUG TEST ANALYSIS
FALLING HEAD TEST MW-61

$$K = \frac{r_c^2}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right]$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	8	K=	3.86E-06	cm/sec
t_1 =	2	K=	1.09E-02	ft/day
t_2 =	20			
h_1/h_0 =	0.64			
h_2/h_0 =	0.59			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/11/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/24/2013

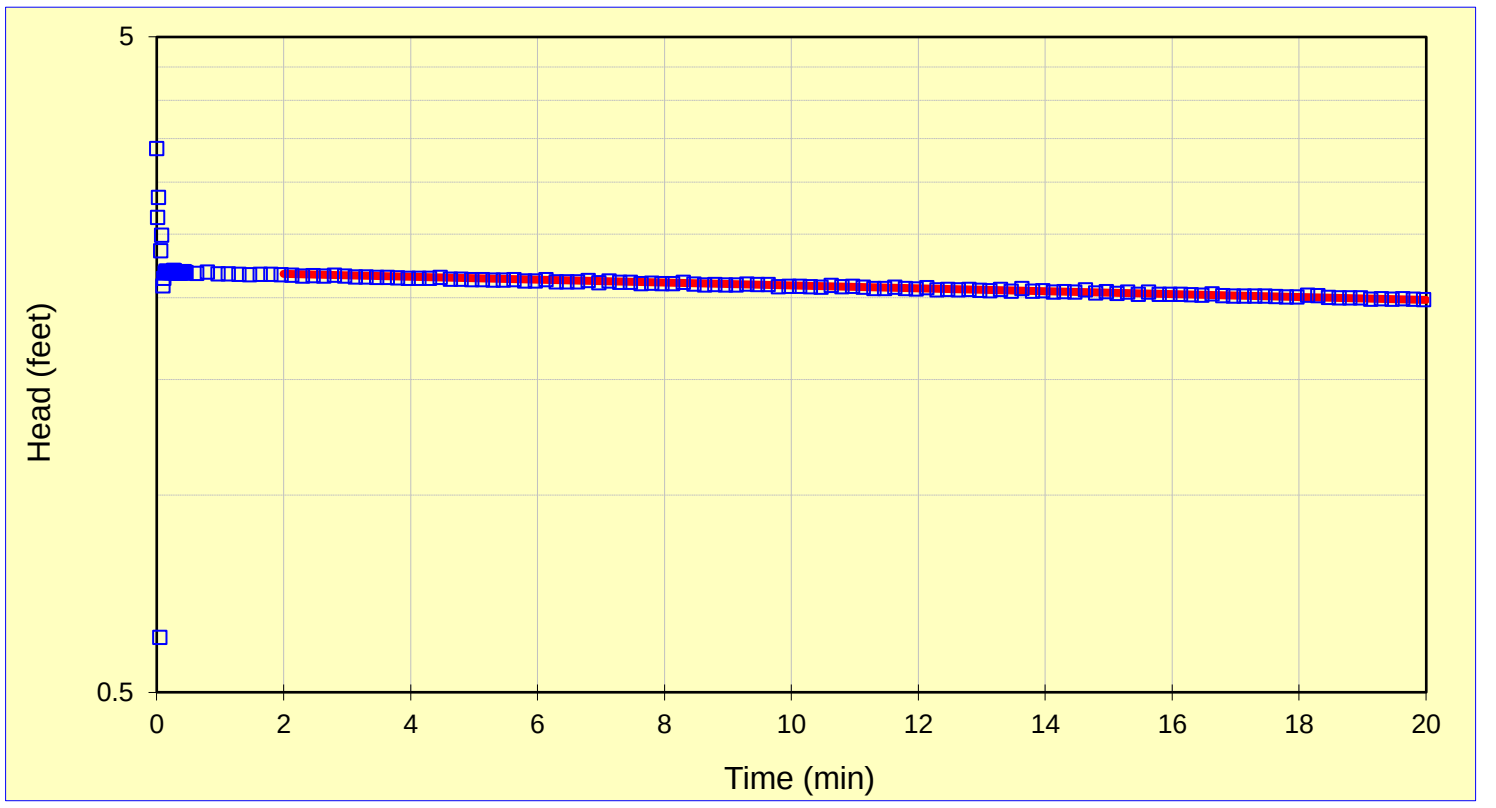
BOUWER AND RICE SLUG TEST ANALYSIS
FALLING HEAD TEST MW-61

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	8	K=	4.20E-06	cm/sec
$\ln(R_e/r_w)$=	3.77	K=	1.19E-02	ft/day
y_0 =	2.20			
y_t =	1.985			
t =	20.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/11/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 10/24/2013

FALLING HEAD TEST MW-62

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-62	
DATE	10/8/2013	
INITIAL DEPTH TO WATER	44.61	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	64.7	FEET (btoc)
BOTTOM OF OPEN INTERVAL	72.7	FEET (btoc)
SATURATED THICKNESS	28.09	FEET
WATER TABLE TO BOTTOM OF SCREEN	28.09	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	8	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	2.57	FEET
MAX. HEAD IN SCREEN?	Y	

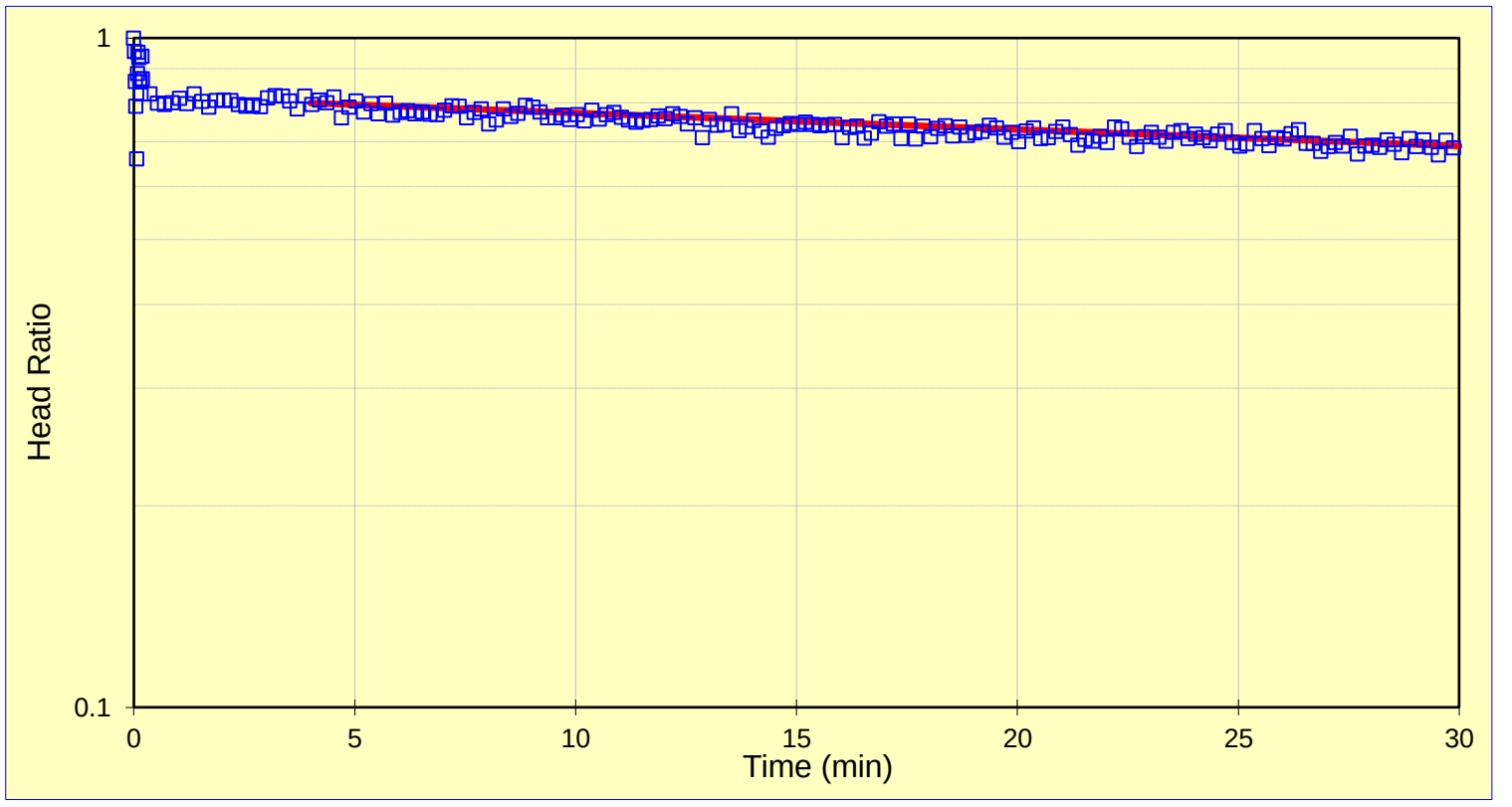
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
30.98	58.63			
31.00	59.77			
31.02	60.22			
31.03	60.58			
31.05	61.11			
31.07	61.13			
31.08	61.20	0.000	2.571	1.00
31.10	61.08	0.017	2.456	0.96
31.12	60.84	0.033	2.213	0.86
31.13	60.66	0.050	2.032	0.79
31.15	60.33	0.067	1.697	0.66
31.17	60.90	0.083	2.275	0.88
31.18	61.08	0.100	2.449	0.95
31.20	61.03	0.117	2.404	0.94
31.22	60.86	0.133	2.236	0.87
31.23	60.84	0.150	2.211	0.86
31.25	60.75	0.167	2.123	0.83
31.27	61.04	0.183	2.415	0.94
31.28	60.86	0.200	2.236	0.87
31.45	60.75	0.367	2.121	0.82
31.62	60.68	0.533	2.055	0.80

HVORSLEV SLUG TEST ANALYSIS
FALLING HEAD TEST MW-62

$$K = \frac{r_c^2}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right]$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	8	K=	4.86E-06	cm/sec
t_1 =	4	K=	1.38E-02	ft/day
t_2 =	30			
h_1/h_0 =	0.80			
h_2/h_0 =	0.69			



Project Name:	Electrolux, Jefferson, IA	Analysis By:	ATK
Project No.:	103-87305	Checked By:	DAC
Test Date:	10/08/13	Analysis Date:	10/24/2013

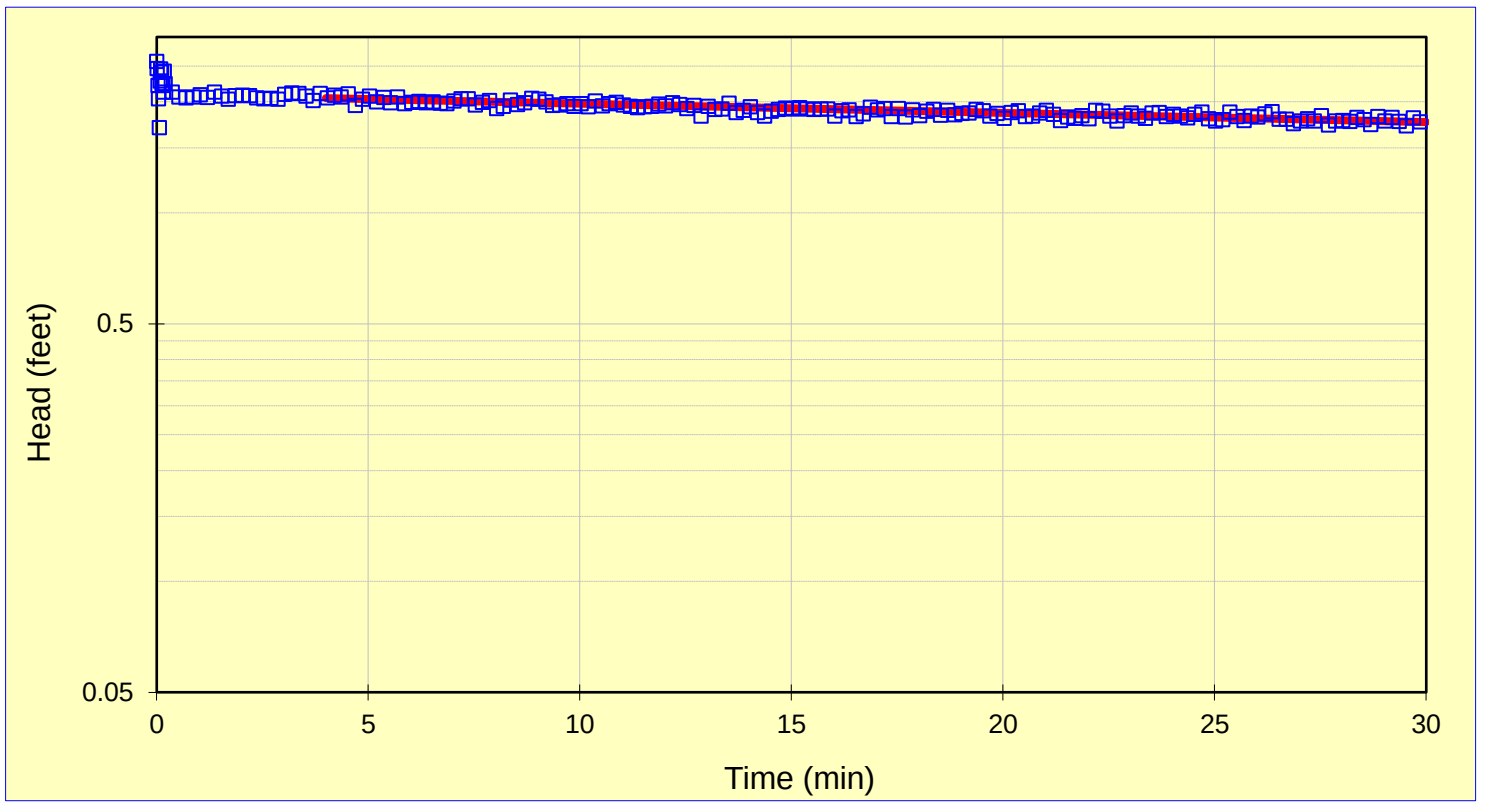
BOUWER AND RICE SLUG TEST ANALYSIS
FALLING HEAD TEST MW-62

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	8	K=	4.69E-06	cm/sec
$\ln(R_e/r_w)$=	3.74	K=	1.33E-02	ft/day
y_0 =	2.09			
y_t =	1.762			
t =	30.0			



Project Name:	Electrolux, Jefferson, IA	Analysis By:	ATK
Project No.:	103-87305	Checked By:	DAC
Test Date:	10/08/13	Analysis Date:	10/24/2013

FALLING HEAD TEST MW-63

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-63	
DATE	10/8/2013	
INITIAL DEPTH TO WATER	48.69	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	64	FEET (btoc)
BOTTOM OF OPEN INTERVAL	72.5	FEET (btoc)
SATURATED THICKNESS	23.81	FEET
WATER TABLE TO BOTTOM OF SCREEN	23.81	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	8.5	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	2.16	FEET
MAX. HEAD IN SCREEN?	Y	

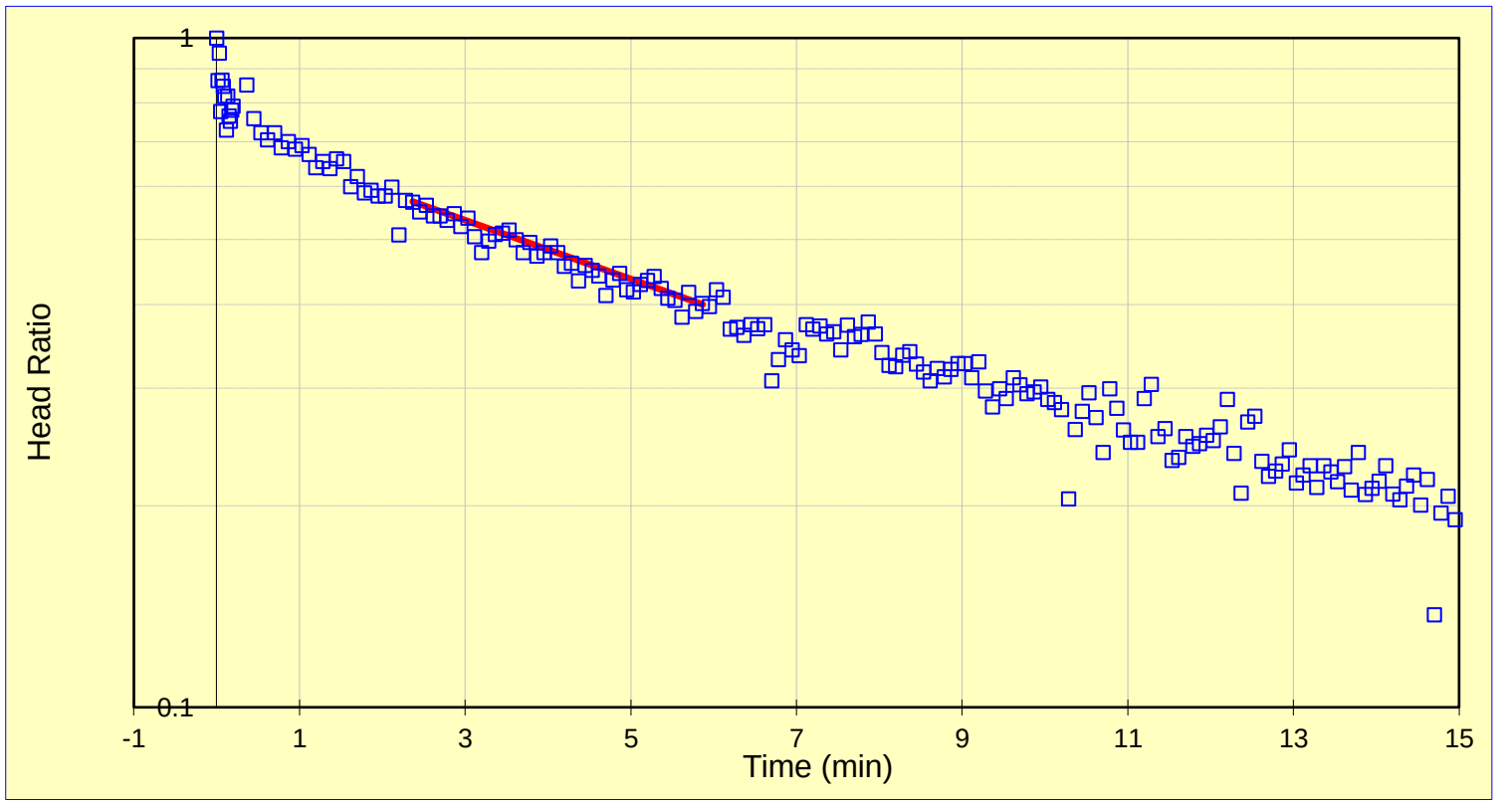
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
40.42	54.83			
40.43	55.52			
40.45	55.57			
40.47	56.14			
40.48	56.69			
40.50	56.97			
40.52	56.99	0.000	2.160	1.00
40.53	56.69	0.017	1.865	0.86
40.55	56.87	0.033	2.049	0.95
40.57	56.50	0.050	1.677	0.78
40.58	56.70	0.067	1.870	0.87
40.60	56.65	0.083	1.829	0.85
40.62	56.59	0.100	1.765	0.82
40.63	56.40	0.117	1.573	0.73
40.65	56.60	0.133	1.770	0.82
40.67	56.48	0.150	1.652	0.76
40.68	56.45	0.167	1.623	0.75
40.70	56.51	0.183	1.686	0.78
40.72	56.53	0.200	1.709	0.79

HVORSLEV SLUG TEST ANALYSIS
FALLING HEAD TEST MW-63

$$K = \frac{r_c^2}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right]$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	8.5	K=	8.26E-05	cm/sec
t_1 =	2.367	K=	2.34E-01	ft/day
t_2 =	5.867			
h_1/h_0 =	0.57			
h_2/h_0 =	0.40			



Project Name:	Electrolux, Jefferson, IA	Analysis By:	ATK
Project No.:	103-87305	Checked By:	DAC
Test Date:	10/08/13	Analysis Date:	11/8/2013

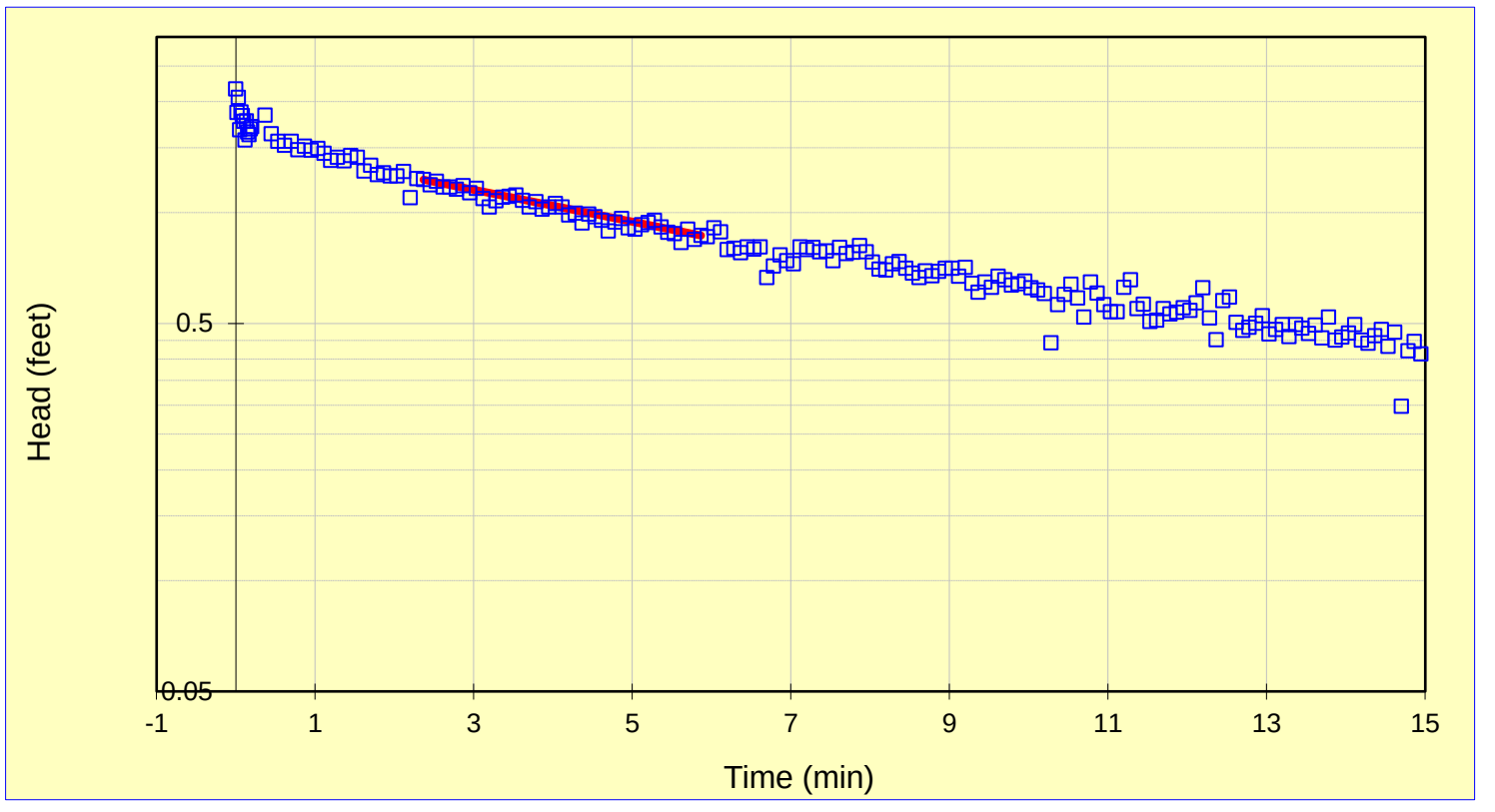
BOUWER AND RICE SLUG TEST ANALYSIS
FALLING HEAD TEST MW-63

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	8.5	K=	6.86E-05	cm/sec
$\ln(R_e/r_w)$=	3.65	K=	1.94E-01	ft/day
y_0 =	1.47			
y_t =	0.866			
t =	5.9			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/08/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 11/8/2013

RISING HEAD TEST MW-63

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-63	
DATE	10/8/2013	
INITIAL DEPTH TO WATER	48.69	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	64	FEET (btoc)
BOTTOM OF OPEN INTERVAL	72.5	FEET (btoc)
SATURATED THICKNESS	23.81	FEET
WATER TABLE TO BOTTOM OF SCREEN	23.81	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	8.5	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	2.11	FEET
MAX. HEAD IN SCREEN?	Y	

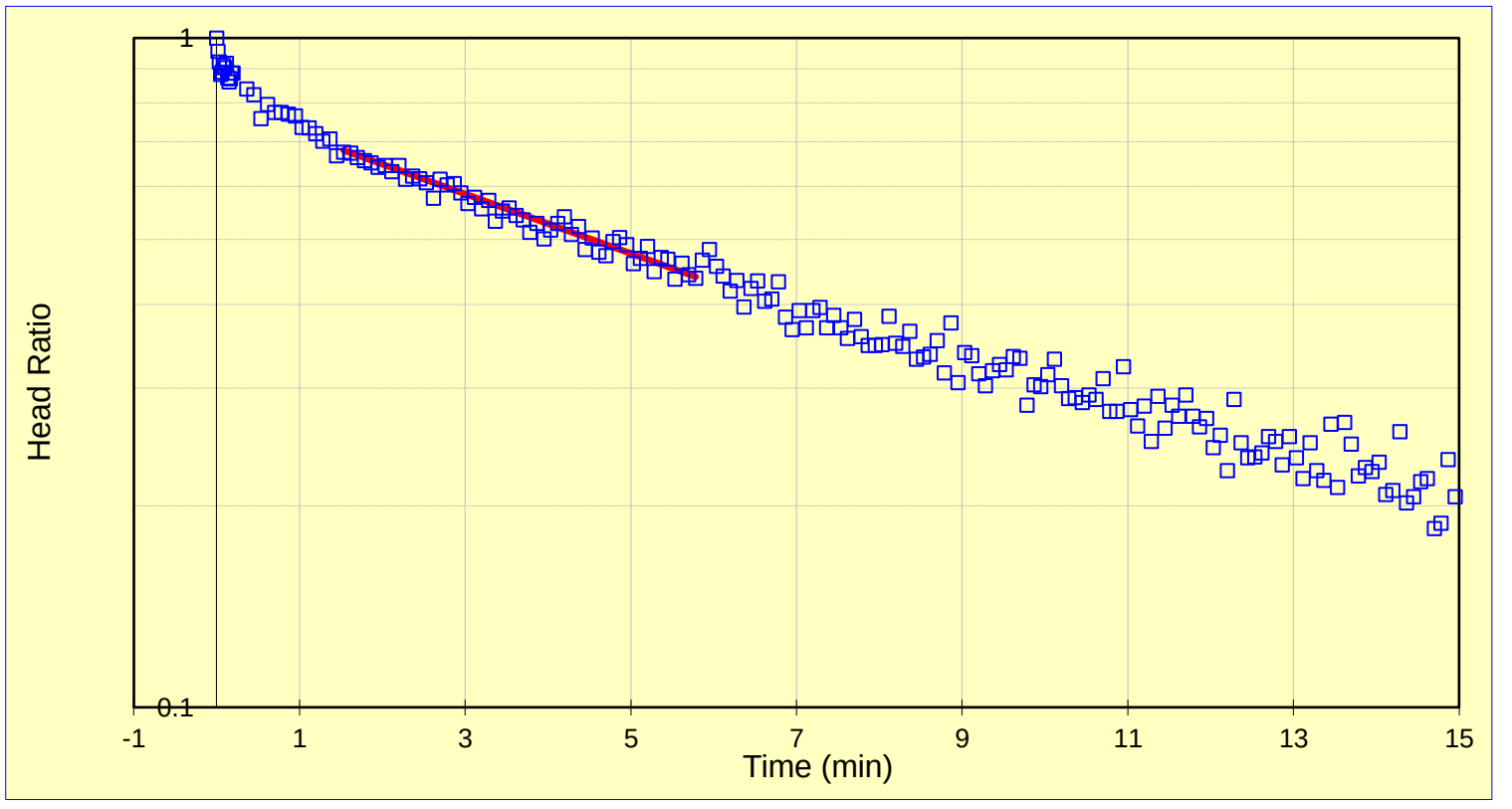
EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
105.32	54.93			
105.33	54.93			
105.35	54.89			
105.37	54.51			
105.38	54.36			
105.40	53.35			
105.42	52.82	0.000	2.108	1.00
105.43	52.91	0.017	2.013	0.95
105.45	52.99	0.033	1.940	0.92
105.47	53.07	0.050	1.859	0.88
105.48	53.05	0.067	1.874	0.89
105.50	53.01	0.083	1.917	0.91
105.52	53.02	0.100	1.902	0.90
105.53	52.99	0.117	1.931	0.92
105.55	53.09	0.133	1.838	0.87
105.57	53.11	0.150	1.813	0.86
105.58	53.09	0.167	1.831	0.87
105.60	53.06	0.183	1.868	0.89
105.62	53.06	0.200	1.868	0.89

HVORSLEV SLUG TEST ANALYSIS
RISING HEAD TEST MW-63

$$K = \frac{r_c^2}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right]$$

where:
r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	8.5	K=	8.36E-05	cm/sec
t_1 =	1.533	K=	2.37E-01	ft/day
t_2 =	5.783			
h_1/h_0 =	0.68			
h_2/h_0 =	0.44			



Project Name:	Electrolux, Jefferson, IA	Analysis By:	ATK
Project No.:	103-87305	Checked By:	DAC
Test Date:	10/08/13	Analysis Date:	11/8/2013

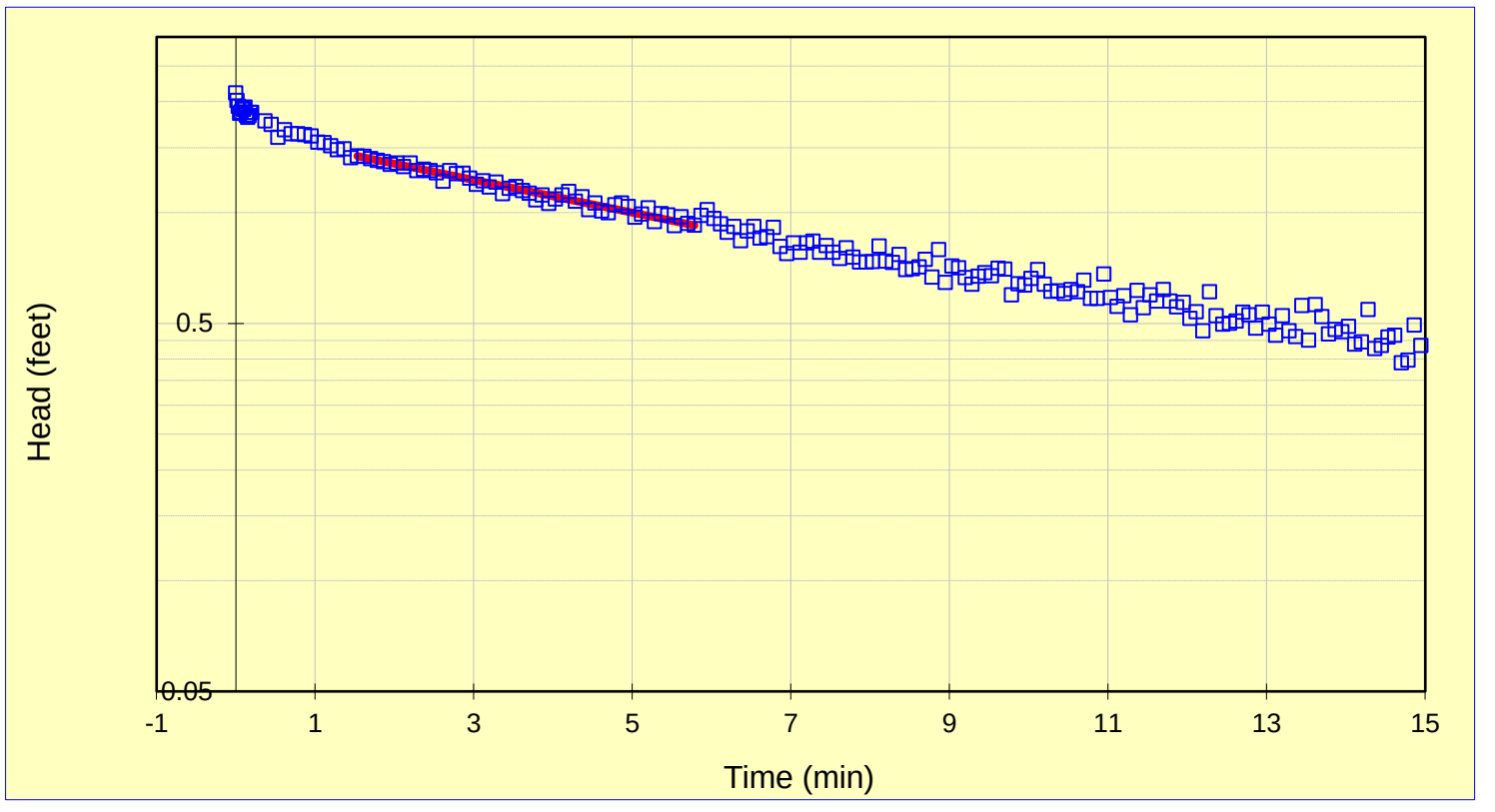
BOUWER AND RICE SLUG TEST ANALYSIS
RISING HEAD TEST MW-63

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	8.5	K=	7.24E-05	cm/sec
$\ln(R_e/r_w)$=	3.65	K=	2.05E-01	ft/day
y_0 =	1.60			
y_t =	0.923			
t =	5.8			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 10/08/13

Analysis By: ATK
Checked By: DAC
Analysis Date: 11/8/2013

FALLING HEAD TEST MW-66

Electrolux, Jefferson, IA
103-87305

WELL NO.	MW-66	
DATE	11/10/2015	
INITIAL DEPTH TO WATER	13.50	FEET (btoc)
CASING DIAMETER	2	INCHES
SAND DIAMETER	4	INCHES
TOP OF OPEN INTERVAL	45	FEET (btoc)
BOTTOM OF OPEN INTERVAL	55	FEET (btoc)
SATURATED THICKNESS	41.5	FEET
WATER TABLE TO BOTTOM OF SCREEN	41.5	FEET
EQUIVALENT DIAMETER	2.76	INCHES
OPEN INTERVAL LENGTH	10	FEET
STATIC IN SCREEN?	N	
MAX. HEAD CHANGE	1.38	FEET
MAX. HEAD IN SCREEN?	N	

EVENT EALAPSED TIME (MIN)	HEAD WATER (FEET)	TEST ELAPSED TIME (MIN)	CHANGE HEAD	HEAD RATIO
11:00	12.12	0.00	1.380	1.00
11:02	12.35	2.00	1.150	0.83
11:04	12.58	4.00	0.920	0.67
11:06	12.76	6.00	0.740	0.54
11:08	12.80	8.00	0.700	0.51
11:10	12.91	10.00	0.590	0.43
11:12	12.92	12.00	0.580	0.42
11:14	12.96	14.00	0.540	0.39
11:16	13.00	16.00	0.500	0.36
11:18	13.03	18.00	0.470	0.34
11:20	13.06	20.00	0.440	0.32
11:22	13.09	22.00	0.410	0.30
11:24	13.11	24.00	0.390	0.28
11:26	13.12	26.00	0.380	0.28
11:28	13.14	28.00	0.360	0.26
11:30	13.15	30.00	0.350	0.25
11:32	13.16	32.00	0.340	0.25
11:35	13.17	35.00	0.330	0.24
11:40	13.25	40.00	0.250	0.18
11:45	13.26	45.00	0.240	0.17

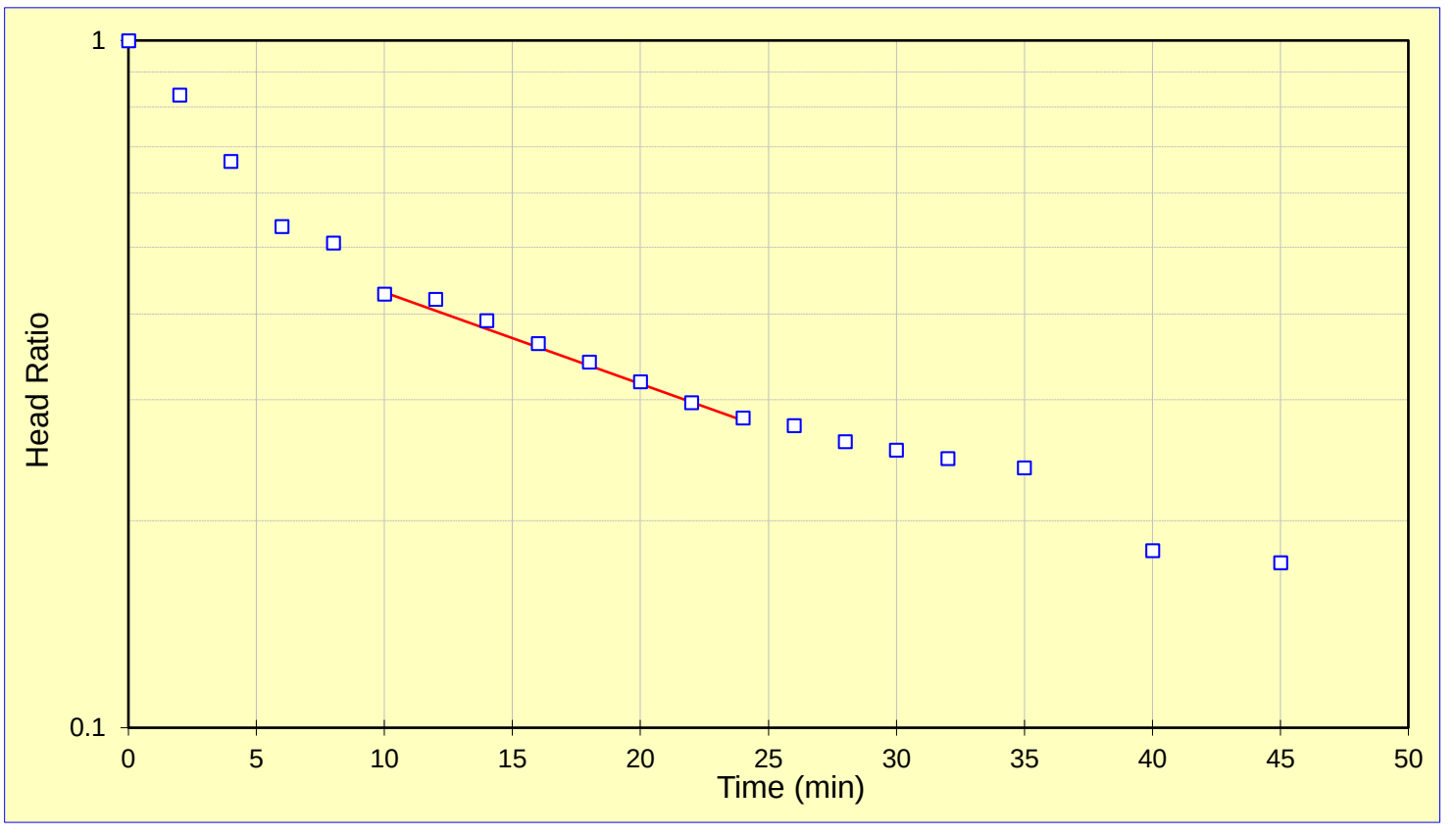
HVORSLEV SLUG TEST ANALYSIS
FALLING HEAD TEST MW-66

$$K = \frac{r_c^{\,2}}{2L_e} \ln \frac{L_e}{R_e} \left[\frac{\ln\left(\frac{h_1}{h_2}\right)}{(t2 - t1)} \right] 30.48$$

where:

r_c = casing radius (feet)
R_e = equivalent radius (feet)
L_e = length of screened interval (feet)
t = time (minutes)
h_t = head at time t (feet)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
R_e =	0.17			
L_e =	10	K=	2.21E-05	cm/sec
t_1 =	10	K=	6.27E-02	ft/day
t_2 =	24			
h_1/h_0 =	0.43			
h_2/h_0 =	0.28			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 11/10/15

Analysis By: BPC
Checked By: ASI
Analysis Date: 1/5/2016

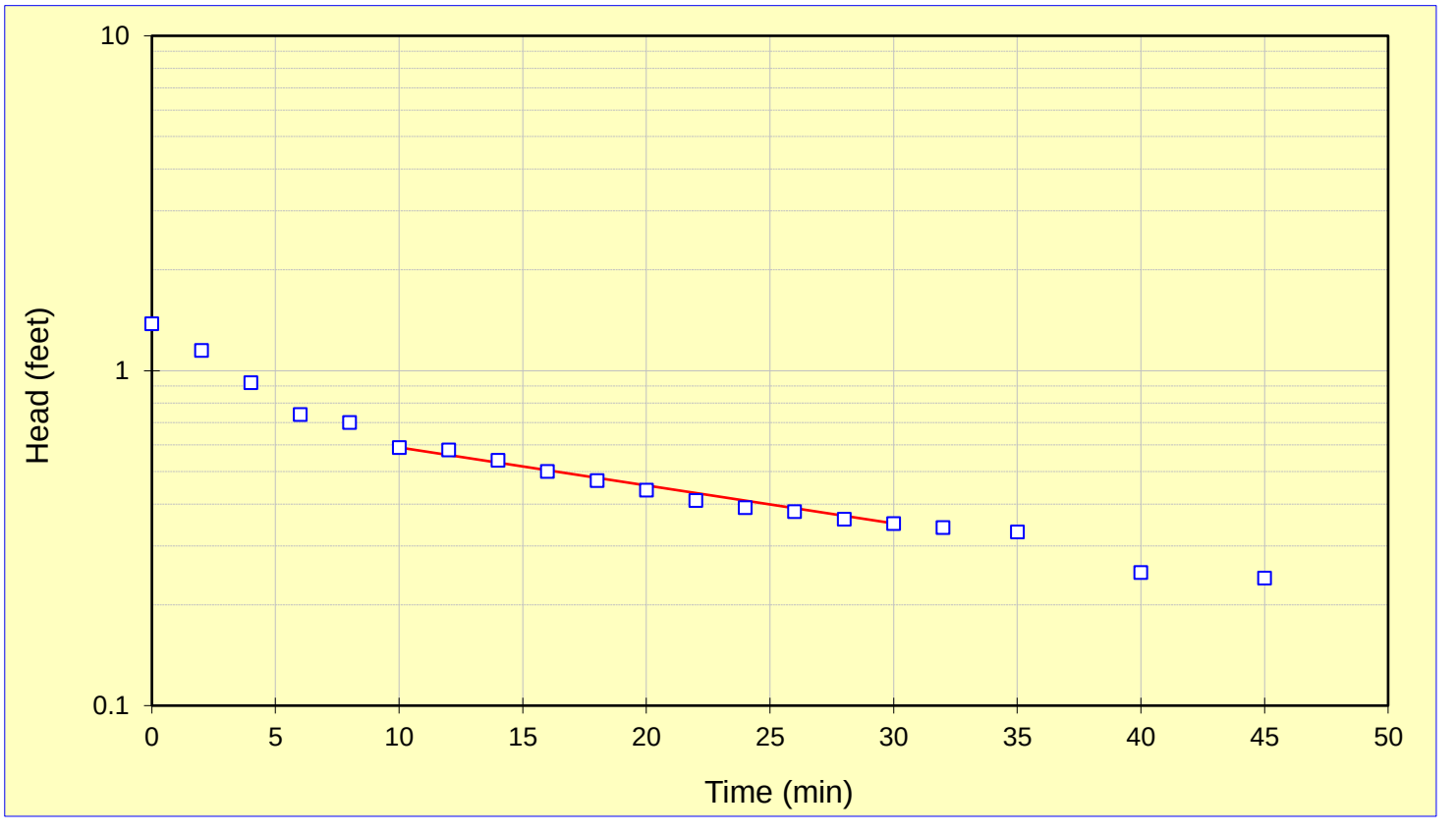
BOUWER AND RICE SLUG TEST ANALYSIS
FALLING HEAD TEST MW-66

$$K = \frac{r_c^{\,2} \ln\left(\frac{R_e}{r_w}\right)}{2L_e} \frac{1}{t} \ln \frac{y_0}{y_t}$$

where:

r_c = casing radius (feet);
R_e = effective radius (feet);
L_e = length of screened interval (feet);
r_w = radial distance to undisturbed aquifer (feet)
y_0 = initial drawdown (feet)
y_t = drawdown (feet) at time t (minutes)

INPUT PARAMETERS		RESULTS		
r_c =	0.08			
r_w =	0.17			
L_e =	10	K=	1.67E-05	cm/sec
$\ln(R_e/r_w)$=	4.01	K=	4.73E-02	ft/day
y_0 =	0.71			
y_t =	0.350			
t =	30.0			



Project Name: Electrolux, Jefferson, IA
Project No.: 103-87305
Test Date: 11/10/15

Analysis By: BPC
Checked By: ASI
Analysis Date: 1/5/2016

APPENDIX H

GROUNDWATER SAMPLE COLLECTION FORMS

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 103-8730 5

WEATHER CONDITIONS

Temperature 35° Weather CLOUDY, DRIZZLE

SAMPLE INFORMATION

Sample Location MW-22 Sample No. MW-22

Sample Date 4/19/11 Time 1345/1412 Sample By JDU

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 4.19 FT BTOC

Well Volume: –

Volume Water Removed Before Sampling: 0.2L

Water Level Before Sampling: 4.19 FTBTOC / 4.58 FTBTOC

Water Level After Sampling: 4.51 FTBTOC / 4.56 FTBTOC

Appearance of Sample: SL CLOUDY / CLEAR

FLOWRATE 150 ml/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement		Measurement (SAMPLE)	Sample
Time	hhmm	1400	1403	1406	1409	1412	
Volume Discharge	L gals	2.25	2.75	3.25	3.75	4.25	
±.1 pH	Standard	6.80	6.88	6.90	6.90	6.89	
±3% Spec. Cond.	µ S/CM	0.861	0.909	0.920	0.918	0.924	
WATER LEVEL Turbidity	NTU	4.55	4.55	4.56	4.57	4.58	
Temperature	° L	8.85	9.60	9.73	9.76	9.87	
±10% Dissolved Oxygen	mg/l	3.88	2.43	2.23	2.19	2.06	
Redox Potential	+/- mV	–	–	–		–	
		–	–	–		–	
		–	–	–		–	

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3 40 ml GLASS	NO	HCl
2	DAC 2	1 L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: COLLECTED TWO SAMPLES, ODOR IN EACH, SENT THE SAMPLE COLLECTED AT 1412 FOR LAB ANALYSIS

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE, Stainless Steel, Teflon

Peristaltic Pump, Submersible Pump, Hand Pump

Air-Lift Pump, Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 103-87305

WEATHER CONDITIONS

Temperature 35° Weather CLOUDY

SAMPLE INFORMATION

Sample Location MW-23 Sample No. MW-23

Sample Date 4/19/11 Time 1455/1528 Sample By JDJ

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 4.21 FT DTOC

Well Volume: –

Volume Water Removed Before Sampling: 0.2L/ 5.75L

Water Level Before Sampling: 4.21 FT DTOC / 5.26 FT DTOC

Water Level After Sampling: 5.10 FT DTOC / 5.26 FT DTOC

Appearance of Sample: CLEAR / CLEAR

FLOWRATE 150 mL/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement		Measurement		Sample
Time	hhmm	1510	1513	1516	1519	1522	1525	1528
Volume Discharge	~~gals~~ L	2.25	2.75	3.25	4.25	4.75	5.26	5.75
±.1 pH	Standard	7.68	7.95	7.77	7.61	7.39	7.35	7.30
±3% Spec. Cond.	m S/CM	0.380	0.359	0.401	0.445	0.471	0.480	0.477
WATER LEVEL ~~Turbidity~~	~~NTU~~	5.19	5.18	5.20	5.22	5.24	5.28	5.26
Temperature	°C	8.34	8.91	8.92	9.00	9.05	9.04	9.05
±10% Dissolved Oxygen	mg/l	4.25	3.62	2.95	2.91	2.75	2.76	2.54
~~Redox Potential~~	~~+/- mV~~	–	–	–		–		–
		–	–	–		–		–
		–	–	–		–		–

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40 mL GLASS	NO	HCl
2	DRO	1 L AMBER	NO	none
3				
4				
5				
6				
7				
8				

REMARKS: COLLECTED TWO SAMPLES, ODOR IN EACH, SENT SAMPLE COLLECTED AT 1528 FOR LAB ANALYSIS

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE, Stainless Steel, Teflon

Peristaltic Pump, Submersible Pump, Hand Pump

Air-Lift Pump, Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No. :** 103-87305

WEATHER CONDITIONS

Temperature 35° Weather CLOUDY W/ DRIZZLE

SAMPLE INFORMATION

Sample Location MW-21 Sample No. MW-21

Sample Date 4/19/11 Time 1210 Sample By JDO

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 3.68 FT BTOC

Well Volume: –

Volume Water Removed Before Sampling: 6.0L

Water Level Before Sampling: 3.68 FT BTO

Water Level After Sampling: 7.44 FT BTOC

Appearance of Sample: CLEAR WITH SHEEN

FLOWRATE 150mL/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement		Sample	
Time	hhmm	1230	1235	1240	1245	1250	1255	1300
Volume Discharge	~~gals~~ L	3.0	3.75	4.50	5.25	6.0	6.75	7.50
±0.1 pH	Standard	8.92	9.13	8.42	7.47	7.19	7.02	7.01
±3% Spec. Cond.	µ S/CM	0.733	0.787	0.800	0.782	0.781	0.773	0.789
~~WATER LEVEL Turbidity~~	~~NTU~~	7.79	8.30	8.86	9.34	9.76	10.5	11.20
Temperature	°C	8.80	9.26	9.42	9.37	9.44	9.31	9.39
±10% Dissolved Oxygen	mg/l	6.50	2.56	1.58	1.45	1.70	2.11	2.64
~~Redox Potential~~	~~+/- mV~~	–	–	–	–	–	–	–
		–	–	–	–	–	–	–
		–	–	–	–	–	–	–

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40mL GLASS	NO	HCl
2	OA-2	1 L AMBER	NO	none
3	PCBs	1 L AMBER	NO	none
4				
5				
6				
7				
8				

REMARKS: DRY AT 1304, SHEEN OBSERVED ON SAMPLE

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE
Stainless Steel
Teflon

Peristaltic Pump
Submersible Pump
Hand Pump

Air-Lift Pump
Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No. :** 103-87305

WEATHER CONDITIONS

Temperature 35° Weather CLOUDY

SAMPLE INFORMATION

Sample Location MW-5 Sample No. MW-5

Sample Date 4/20/11 Time 0730 Sample By JDW

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 4.70 FT BTOC

Well Volume: –

Volume Water Removed Before Sampling: 0.2 L

Water Level Before Sampling: 4.70 FT BTOC

Water Level After Sampling: 6.65 FT BTOC

Appearance of Sample: CLEAR

FLOWRATE 150 mL/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm	0740	–	–	–	–
Volume Discharge	L ~~gals~~	1.50	–	–	–	–
±0.1 pH	Standard	7.39	–	–	–	–
±3% Spec. Cond.	mS/CM	0.722	–	–	–	–
WATER LEVEL ~~Turbidity~~	~~NTU~~	DRY	–	–	–	–
Temperature	°C	7.14	–	–	–	–
±10% Dissolved Oxygen	mg/l	9.86	–	–	–	–
~~Redox Potential~~	~~+/- mV~~	–	–	–	–	–
		–	–	–	–	–
		–	–	–	–	–

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40mL GLASS	NO	HCl
2	OA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: DRY AT 0740

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE
Stainless Steel
Teflon

Peristaltic Pump
Submersible Pump
Hand Pump

Air-Lift Pump
Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 103-87305

WEATHER CONDITIONS

Temperature 35° Weather CLOUDY

SAMPLE INFORMATION

Sample Location MW-9 Sample No. MW-9

Sample Date 4/20/11 Time 0800 / 0828 Sample By UDU

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 1.48 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: 0.2 L / 4.5 L

Water Level Before Sampling: 1.48 FT BTOC / 9.13 FT BTOC

Water Level After Sampling: 5.04 FT BTOC / DRY

Appearance of Sample: CLEAR / CLEAR

FLOW RATE 150 ml/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement		Measurement		Sample	
Time	hhmm	0810	0813	0816	0819	0822	0825	0828	DRY
Volume Discharge	~~gals~~	1.5	2.0	2.5	3.0	3.5	4.0	4.5	AT
±0.1 pH	Standard	7.01	7.18	7.31	7.29	7.22	7.20	7.16	0836
±3% Spec. Cond.	~~m~~ S/CM	1.030	0.948	0.927	0.947	0.967	0.957	0.980	—
WATER LEVEL ~~Turbidity~~	NTU	6.06	6.80	6.80	6.80	7.35	8.18	9.13	—
Temperature	°C	6.43	6.58	6.61	6.62	6.63	6.62	6.62	—
±10% Dissolved Oxygen	mg/l	4.85	3.74	2.96	2.45	2.06	1.98	2.13	—
Redox Potential	+/- mV	—	—	—		—		—	
		—	—	—		—		—	
		—	—	—		—		—	

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3 40mL GLASS	NO	HCl
2	OA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: COLLECTED TWO SAMPLES, DRY AT 0836, SENT SAMPLE COLLECTED AT 0828 FOR LAB ANALYSIS

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE, Stainless Steel, Teflon

Peristaltic Pump, Submersible Pump, Hand Pump

Air-Lift Pump, Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 1087305

WEATHER CONDITIONS

Temperature 35° Weather CLOUDY

SAMPLE INFORMATION

Sample Location MW-11 Sample No. MW-11

Sample Date 4/20/11 Time 0905 / 0927 Sample By JDU

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 0.42 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: 0.2 / 4.4L

Water Level Before Sampling: 0.42 FT BTOC / 6.67 FT BTOC

Water Level After Sampling: 3.26 FT BTOC / 9.84 FT BTOC

Appearance of Sample: CLEAR / SL CLOUDY

FLOWRATE 200 ml/min

FIELD MEASUREMENTS

Parameter	Units	Measurement		Measurement		Measurement (SAMPLE)		Measurement	Sample
Time	hhmm	0915	0918	0921	0924	0927		—	—
Volume Discharge	~~gals~~	2.0	2.6	3.2	3.8	4.4		—	—
±0.1 pH	Standard	7.61	7.50	7.50	7.52	7.52	—	—	—
±3% Spec. Cond.	m S/CM	0.610	0.593	0.571	0.560	0.571	—	—	—
WATER LEVEL ~~Turbidity~~	~~NTU~~	3.84	4.43	5.01	5.59	6.67	—	—	—
Temperature	°C	6.92	6.98	7.08	7.14	7.15	—	—	—
±10% Dissolved Oxygen	mg/l	8.44	7.83	7.28	7.01	6.87	—	—	—
~~Redox Potential~~	+/- mV	—		—		—		—	—
		—		—		—		—	—
		—		—		—		—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40ml GLASS	NO	HCl
2	OA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: COLLECTED TWO SAMPLES, SENT SAMPLE COLLECTED AT 0927 FOR LAB ANALYSIS

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE, Stainless Steel, Teflon

Peristaltic Pump, Submersible Pump, Hand Pump

Air-Lift Pump, Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 103-87305

WEATHER CONDITIONS

Temperature 36° Weather CLOUDY

SAMPLE INFORMATION

Sample Location MW-6 Sample No. MW-6

Sample Date 4/20/11 Time 1000 Sample By JDJ

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 5.46 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: 0.2 L

Water Level Before Sampling: 5.46 FT BTOC

Water Level After Sampling: 7.81 FT BTOC

Appearance of Sample: CLEAR

FLOWRATE 150 ml/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm	1010	1013	1015	—	—
Volume Discharge	~~gals~~ L	1.5	2.0	DRY	—	—
±0.1 pH	Standard	7.15	7.15	—	—	—
±3% Spec. Cond.	~~µ~~ S/CM	0.857	0.858	—	—	—
WATER LEVEL ~~Turbidity~~	~~NTU~~	8.66	9.15	—	—	—
Temperature	°C	6.83	6.82	—	—	—
±10% Dissolved Oxygen	mg/l	8.44	7.34	—	—	—
~~Redox Potential~~	~~+/-~~ mV	—	—	—	—	—
		—	—	—	—	—
		—	—	—	—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40ml GLASS	NO	HCl
2	DA-3	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: DRY AT 1015

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE Stainless Steel Teflon

Peristaltic Pump Submersible Pump Hand Pump

Air-Lift Pump Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 03-87305

WEATHER CONDITIONS

Temperature 36° Weather CLOUDY, SL DRIZZLE

SAMPLE INFORMATION

Sample Location MW-12 Sample No. MW-12

Sample Date 4/20/11 Time 1035 Sample By JDJ

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 6.84 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: 0.2 L

Water Level Before Sampling: 6.84 FT BTOC

Water Level After Sampling: 9.81 FT BTOC

Appearance of Sample: CLEAR

FLOWRATE ~150 ml/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm	1046	1048	1051	1052	
Volume Discharge	~~gals~~ L	1.5	2.0	2.5	DRY	—
±0.1 pH	Standard	9.46	9.65	9.20	—	—
±3% Spec. Cond.	~~m~~ S/CM	0.934	0.927	0.964	—	—
WATER LEVEL Turbidity	NTU	10.41	11.55	12.31	—	—
Temperature	°C	7.56	7.60	7.76	—	—
±10% Dissolved Oxygen	mg/l	9.31	8.03	7.52	—	—
~~Redox Potential~~	~~+/- mV~~	—	—	—	—	—
		—	—	—	—	—
		—	—	—	—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40mL GLASS	NO	HCl
2	OA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: DRY AT 1052

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE
Stainless Steel
Teflon

Peristaltic Pump
Submersible Pump
Hand Pump

Air-Lift Pump
Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 103-87305

WEATHER CONDITIONS

Temperature 41° Weather CLOUDY

SAMPLE INFORMATION

Sample Location MW-13 Sample No. MW-13

Sample Date 4/20/11 Time 1110 Sample By JDW

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 6.65 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: 0.2 L

Water Level Before Sampling: 6.65 FT BTOC

Water Level After Sampling: 9.16 FT BTOC

Appearance of Sample: CLEAR

FLOWRATE 150 mL/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	Measurement	Sample
Time	hhmm	1120	1123	1126	—	
Volume Discharge	~~gals~~ L	1.5	2.0	2.5	—	—
±0.1 pH	Standard	7.91	7.86	7.93	—	—
±3% Spec. Cond.	m S/CM	0.702	0.719	0.733	—	—
WATER LEVEL ~~Turbidity~~	~~NTU~~	10.0	11.02	DRY	—	—
Temperature	°C	7.65	7.75	7.91	—	—
±10% Dissolved Oxygen	mg/l	9.42	8.12	7.35	—	—
~~Redox Potential~~	~~+/- mV~~	—	—	—	—	—
		—	—	—	—	—
		—	—	—	—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40mL GLASS	NO	HCl
2	OA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: DRY AT 1126

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE
Stainless Steel
Teflon

~~Peristaltic Pump~~
Submersible Pump
Hand Pump

Air-Lift Pump
Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 103-87305

WEATHER CONDITIONS

Temperature 41° Weather CLOUDY

SAMPLE INFORMATION

Sample Location MW-7 Sample No. MW-7

Sample Date 4/20/11 Time 1200/1219 Sample By JDJ

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 4.97 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: 0.2 L / 3.8 L

Water Level Before Sampling: 4.97 FT BTOC / 9.74 FT BTOC

Water Level After Sampling: 7.48 FT BTOC / 10.78 FT BTOC

Appearance of Sample: CLEAR / CLEAR

FLOWRATE 200 ml/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	SAMPLE ~~Measurement~~	Sample
Time	hhmm	1210	1213	1216	1219	—
Volume Discharge	~~gals~~	2.0	2.6	3.2	3.8	—
±0.1 pH	Standard	7.36	7.33	7.33	7.33	—
±3% Spec. Cond.	mS/CM	0.797	0.796	0.796	0.795	—
WATER LEVEL ~~Turbidity~~	~~NTU~~	8.76	9.35	9.70	9.74	—
Temperature	°C	7.87	7.94	7.95	7.98	—
±10% Dissolved Oxygen	mg/l	4.56	4.07	3.86	3.69	—
~~Redox Potential~~	~~+/-~~ mV	—	—	—	—	—
		—	—	—	—	—
		—	—	—	—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40mL GLASS	NO	HCl
2	DA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: COLLECTED TWO SAMPLES, SENT SAMPLE COLLECTED AT 1219 FOR LAB ANALYSIS

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE, Stainless Steel, Teflon

Peristaltic Pump, Submersible Pump, Hand Pump

Air-Lift Pump, Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 103-87205

WEATHER CONDITIONS

Temperature 42° Weather MOSTLY CLOUDY

SAMPLE INFORMATION

Sample Location MW-15 Sample No. MW-15

Sample Date 4/20/11 Time 1255 / 1323 Sample By JDJ

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 5.02 FT BTOC

~~Well Volume:~~ —

Volume Water Removed Before Sampling: 0.2L / 4.0L

Water Level Before Sampling: 5.02 FT BTOC / 10.82 FT BTOC

Water Level After Sampling: 6.50 FT BTOC / DRY FT BTOC

Appearance of Sample: CLEAR / SL CLOUDY

FLOWRATE 150 mL/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement		Measurement		SAMPLE Measurement	Sample
Time	hhmm	1308	1311	1314	1317	1320	1323	—
Volume Discharge	~~gals~~	1.5	2.0	2.5	3.0	3.5	4.0	WENT DRY
±0.1 pH	Standard	7.33	7.24	7.25	7.26	7.27	7.28	DURING
±3% Spec. Cond.	µ S/CM	0.586	0.602	0.613	0.620	0.624	0.624	SAMPLING
WATER LEVEL ~~Turbidity~~	~~NTU~~	7.50	8.19	8.84	9.73	10.41	10.82	—
Temperature	°C	11.09	11.37	11.43	11.38	11.60	11.82	—
±10% Dissolved Oxygen	mg/l	5.64	4.34	3.45	2.65	2.59	2.56	—
~~Redox Potential~~	~~+/- mV~~	—	—		—		—	—
		—	—		—		—	—
		—	—		—		—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOC	3-40mL GLASS	NO	HCl
2	OA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: DRY DURING 2nd SAMPLING, WAITED 5 MINUTES FINISHED FILLING CONTAINERS COLLECTED TWO SAMPLES, SENT SAMPLE COLLECTED AT 1323 FOR LAB ANALYSIS

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE / Stainless Steel / Teflon

Peristaltic Pump / Submersible Pump / Hand Pump

Air-Lift Pump / Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No. :** 103-87305

WEATHER CONDITIONS

Temperature 45° Weather MOSTLY CLOUDY

SAMPLE INFORMATION

Sample Location MW-16 Sample No. MW-16

Sample Date 4/20/11 Time 1350/1412 Sample By UDJ

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 4.68 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: ~~0.2L~~ / 3.5L

Water Level Before Sampling: 4.68 FT BTOC / 8.86 FT BTOC

Water Level After Sampling: / 5.85 ~~FT BTOC~~ 11.45 FT BTOC

Appearance of Sample: CLEAR / SL CLOUDY

FLOWRATE 150 mL/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement		SAMPLE Measurement	Sample
Time	hhmm	1400	1403	1406	1409	1412	—
Volume Discharge	~~gals~~ L	1.5	2.0	2.5	3.0	3.5	—
±.1 pH	Standard	7.64	7.44	7.47	7.44	7.48	—
±3% Spec. Cond.	~~m~~ S/CM	0.378	0.423	0.398	0.391	0.392	—
WATER LEVEL ~~Turbidity~~	~~NTU~~	6.09	6.87	7.49	8.20	8.86	—
Temperature	°C	10.85	10.76	10.71	10.65	10.88	—
±10% Dissolved Oxygen	mg/l	5.61	4.68	4.83	4.94	4.87	—
~~Redox Potential~~	~~+/- mV~~	—	—	—		—	—
		—	—	—		—	—
		—	—	—		—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40mL GLASS	NO	HCl
2	OA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: COLLECTED TWO SAMPLES, SECOND SAMPLE COLLECTED AT 1412 FOR LAB ANALYSIS

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE ~~Peristaltic Pump~~ Air-Lift Pump

Stainless Steel Submersible Pump Other_____

Teflon Hand Pump

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 103-87305

WEATHER CONDITIONS

Temperature 45° Weather MOSTLY CLOUDY

SAMPLE INFORMATION

Sample Location MW-17 Sample No. MW-17

Sample Date 4/20/11 Time 1435/1457 Sample By JOJ

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 1.65 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: 0.2 L / 3.5 L

Water Level Before Sampling: 1.65 FT BTOC / 7.34 FT BTOC

Water Level After Sampling: 3.0 FT BTOC / 9.15 FT BTOC

Appearance of Sample: CLEAR / CLOUDY

FLOWRATE 150 mL/min

FIELD MEASUREMENTS

MEASUREMENT/SAMPLE

Parameter	Units	Measurement	Measurement		Measurement		Measurement	Sample
Time	hhmm	1445	1448	1451	1454	1457	—	—
Volume Discharge	~~gals~~ L	1.5	2.0	2.5	3.0	3.5	—	—
±0.1 pH	Standard	7.16	7.17	7.24	7.21	7.22	—	—
±3% Spec. Cond.	m S/CM	0.492	0.491	0.486	0.499	0.494	—	—
WATER LEVEL ~~Turbidity~~	~~NTU~~	3.45	4.16	5.43	6.83	7.34	—	—
Temperature	°C	9.60	9.61	9.68	9.64	9.75	—	—
±10% Dissolved Oxygen	mg/l	4.62	3.72	3.30	3.17	3.07	—	—
~~Redox Potential~~	~~+/- mV~~	—	—		—		—	—
		—	—		—		—	—
		—	—		—		—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40 mL GLASS	NO	HCl
2	OA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS:

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE, Stainless Steel, Teflon

Peristaltic Pump, Submersible Pump, Hand Pump

Air-Lift Pump, Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No. :** 103-87305

WEATHER CONDITIONS

Temperature 33° Weather CLOUDY

SAMPLE INFORMATION

Sample Location MW-18 Sample No. MW-18

Sample Date 4/21/11 Time 0755 Sample By DDJ

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 5.47 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: 2.0 L

START 0735

Water Level Before Sampling: 7.34 FT BTOC

FLOWRATE 100 mL/min

Water Level After Sampling: 9.53 FT BTOC

Appearance of Sample: CLEAR

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement		Measurement	Measurement	Sample
Time	hhmm	0740	0745	0750	—	—	0755
Volume Discharge	~~gals~~ L	0.5	1.0	1.5	—	—	2.0
±0.1 pH	Standard	10.19	10.36	10.36	—	—	10.29
±3% Spec. Cond.	~~m~~ S/CM	0.311	0.293	0.290	—	—	0.288
WATER LEVEL ~~Turbidity~~	NTU	6.18	6.53	6.97	—	—	7.34
Temperature	°C	8.29	8.36	8.48	—	—	8.67
±10% Dissolved Oxygen	mg/l	8.60	8.47	8.29	—	—	8.09
~~Redox Potential~~	~~+/-~~ mV	—	—		—	—	—
		—	—		—	—	—
		—	—		—	—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40mL GLASS	NO	HCl
2	DA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: RESAMPLED DUE TO POSSIBLE SURFACE WATER INFILTRATION

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE ~~Peristaltic Pump~~ Air-Lift Pump

Stainless Steel Submersible Pump Other_____

Teflon Hand Pump

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No. :** 103-87305

WEATHER CONDITIONS

Temperature 33° Weather CLOUDY

SAMPLE INFORMATION

Sample Location MW-20 Sample No. MW-20

Sample Date 4/21/11 Time 0830 / 0857 Sample By JDU

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 3.14 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: 0.2L / 2.7L

Water Level Before Sampling: 3.14 FT BTOC / 5.86 FT BTOC

Water Level After Sampling: 5.05 FT BTOC / 7.22 FT BTOC

Appearance of Sample: CLEAR / CLOUDY

FLOWRATE 100 ml/min

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	SAMPLE ~~Measurement~~	~~Sample~~
Time	hhmm	0848	0851	0854	0857	—
Volume Discharge	~~gals~~ L	1.8	2.1	2.4	2.7	—
±0.1 pH	Standard	7.22	7.34	7.37	7.39	—
±3% Spec. Cond.	µS/CM	0.654	0.634	0.627	0.619	—
WATER LEVEL Turbidity	NTU	5.35	5.54	5.66	5.86	—
Temperature	°C	8.69	8.77	8.88	9.04	—
±10% Dissolved Oxygen	mg/l	5.50	5.06	4.89	4.75	—
~~Redox Potential~~	~~+/- mV~~	—	—	—	—	—
		—	—	—	—	—
		—	—	—	—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40mL GLASS	NO	HCl
2	OA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: CONCRETE PAD AND VAULT DRIVEN OVER BY DEMO CREW
COLLECTED TWO SAMPLES, SENT SECOND (0857) TO LAB FOR ANALYSIS

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE, Stainless Steel, Teflon

Peristaltic Pump, Submersible Pump, Hand Pump

Air-Lift Pump, Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

Project Ref: ELECTROLUX JEFFERSON **Project No.:** 103-87305

WEATHER CONDITIONS

Temperature 33° Weather CLOUDY

SAMPLE INFORMATION

Sample Location MW-19 Sample No. MW-19

Sample Date 4/21/11 Time 0930 / 0957 Sample By JDU

Sample Method PERISTALTIC PUMP Sample Type GRAB

Water Level Before Purging: 3.23 FT BTOC

Well Volume: —

Volume Water Removed Before Sampling: 0.2L / 2.7L

Water Level Before Sampling: 3.23 FT BTOC / 5.70

Water Level After Sampling: 4.94 FT BTOC / 6.86

Appearance of Sample: CLEAR / CLEAR

FIELD MEASUREMENTS

Parameter	Units	Measurement	Measurement	Measurement	SAMPLE Measurement	~~Sample~~
Time	hhmm	0948	0951	0954	0957	—
Volume Discharge	L ~~gals~~	1.8	2.1	2.4	2.7	—
±0.1 pH	Standard	7.41	7.47	7.47	7.47	—
±3% Spec. Cond.	m S/CM	0.702	0.706	0.703	0.703	—
WATER LEVEL ~~Turbidity~~	~~NTU~~	5.29	5.44	5.58	5.70	—
Temperature	°C	10.19	10.01	9.99	9.89	—
±10% Dissolved Oxygen	mg/l	5.72	5.43	5.34	5.25	—
~~Redox Potential~~	~~+/- mV~~	—	—	—	—	—
		—	—	—	—	—
		—	—	—	—	—

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	VOCs	3-40mL GLASS	NO	HCl
2	OA-2	1-L AMBER	NO	NONE
3				
4				
5				
6				
7				
8				

REMARKS: COLLECTED TWO SAMPLES, SENT SECOND (0957) SAMPLE TO THE LAB

NA = Not applicable

SAMPLING METHODS:

Bailer: PVC/PE Stainless Steel Teflon

Peristaltic Pump Submersible Pump Hand Pump

Air-Lift Pump Other_____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 80's
Wind: 15-25
Precipitation: SUNNY

SAMPLE DESCRIPTION

Sample ID: MW-10
Date: 5/23/12
Time at Well Site: 1415
Time of Sample Collection: 1438
Sampled by: VNJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 8.51 feet
Volume of Water in Well: 6.77 gallons
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 6.77 gallons
Method of Purging: LOW FLOW
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.94 ft TOC
Depth to Water: 3.41 ft TOC (5/21/12)
Column of Water in Well: 8.51 ft
Depth to Water after Purge: 9.25 ft TOC

Appearance of Sample: CLEAR, NO ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1422	1429	1438	1435	1438	
Volume Removed (liters):	0.45	1.50	1.95	8.40	8.85	
pH:	9.97	9.95	10.25	10.25	10.32	
Specific Conductance (uS/cm):	404	358	309	301	274	
Temperature (Degrees C):	14.41	14.71	15.22	15.47	15.33	
WATER LEVEL (FT) Turbidity (NTU):	4.04	5.75	7.91	8.40	9.25	
Eh (millivolts):	-20.6	-44.9	-73.7	-78.8	-65.3	
DO (mg/l):	2.28	0.60	0.45	0.45	0.61	

Starting Purge Time: 1419
Ending Purge Time: 1438
Average Purge Rate: 150 ml/min
Total Volume Purged: 2.85 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 525-12-1
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-3
Lab Name: TEST AMERICA
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: VNJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/23/12	1419	3.85	PRIOR TO PURGE
	1425	—	PURGE RATE 150 mL/min
	1450	DRY	DURING SAMPLE COLLECTION
5/24/12	0725	10.90	INSUFFICIENT RECHARGE
5/25/12	0650	10.33	INSUFFICIENT RECHARGE

REPLACED MW-10'S LID WITH MW-5'S. MW-5 IS AT A HIGHER ELEVATION AND UNLIKELY TO BECOME SUBMERGED. FILLED DOWN LOCKING CAP SO LID FITS PROPERLY

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

	5/24/12	
Temperature:	80°	60's
Wind:	10-20 mph	CALM
Precipitation:	SUNNY	OVERCAST

SAMPLE DESCRIPTION

Sample ID:	MW-14	
Date:	5/23/12	5/24/12*
Time at Well Site:	1331	0650
Time of Sample Collection:	1359	0706
Sampled by:	JDU	
Sampling Method:	Peristaltic Pump	
Type of Sampling Equipment:	Poly & Silicon tubing	

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 16.37 feet
Volume of Water in Well: 7.97 gallons
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 7.97 gallons
Method of Purging: LOW FLOW
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.61 ft TOC
Depth to Water: 2.63 ft TOC 5/21/12
Column of Water in Well: 10.37 ft
Depth to Water after Purge: 10.79 ft TOC

Appearance of Sample: 5/23/12 CLEAR, NO ODOR — 5/24/12 SL CLOUDY, NO ODOR

WELL PURGE CONTROL (5/23/12)

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1339	1346	1353	1356	1359	
Volume Removed (liters):	0.45	1.5	2.55	3.0	3.45	
pH:	8.05	9.04	9.33	8.82	7.43	
Specific Conductance (uS/cm):	782	553	495	690	1092	
Temperature (Degrees C):	15.37	16.25	16.34	14.29	13.91	
Turbidity (NTU):	3.87	6.05	8.19	9.28	10.29	
Eh (millivolts):	-13.0	-34.3	-37.5	-36.1	-86.4	
DO (mg/l):	2.39	0.63	1.94	2.30	0.97	

Starting Purge Time: 1336
Ending Purge Time: 1359
Average Purge Rate: 150 ml/min
Total Volume Purged: 3.45 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 5-24-12-1
Shuttle ID: RED BOX
Trip Blank ID: TRIPBLANK-2
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDU

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/23/12	1336	2.78	PRIOR TO PURGE
	1341	—	PURGE RATE 150 mL/min
	1408	DRY	DURING SAMPLE COLLECTION
5/24/12	0650	9.65	PRIOR TO PURGE, PUMPED AT 150 mL/min FOR 3 MIN BEFORE RESAMPLING
	0706	10.16	PRIOR TO SAMPLING; RESAMPLING BEGAN
	0717	12.45	AFTER SAMPLE COLLECTION

* SENT SAMPLE COLLECTED 5/24/12 AT 0700 TO LAB

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 75°
Wind: CALM
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-15
Date: 5/21/12 / 5/22/12
Time at Well Site: 1550 / 1520
Time of Sample Collection: 1612 / 1525
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 7.58 feet
Volume of Water in Well: 6.17 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 6.17 gallons L
Method of Purging: LOW FLOW
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.70 ft TOC
Depth to Water : 5.12 ft TOC (5/21/12)
Column of Water in Well: 7.58 ft
Depth to Water after Purge: 9.98 ft TOC

Appearance of Sample: 5/21/12 CLEAR, NO ODOR; 5/22/12 CLEAR, NO ODOR

WELL PURGE CONTROL

	5/21/12				5/22/12	
	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1557	1602	1607	1612	1540	
Volume Removed (liters):	0.3	1.050	1.8	2.550	—	
pH:	7.45	7.13	7.09	7.08	7.08	
Specific Conductance (uS/cm):	735	698	672	662	711	
Temperature (Degrees C):	15.71	15.22	15.12	14.77	14.39	
Turbidity (NTU):	6.09	6.99	8.18	9.98	8.60	
Eh (millivolts):	62.0	62.4	68.1	65.0	116.9	
DO (mg/l) :	8.14	3.07	4.04	4.14	6.66	

Starting Purge Time: 1555
Ending Purge Time: 1612
Average Purge Rate: 150 ml/min
Total Volume Purged: 2.55 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 5-23-12-01
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-1
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/21/12	1555	5.41	PRIOR TO PURGE
	1558	—	PURGE RATE - 150 mL/min
	1620	DRY	COMPLETED SAMPLE COLLECTION
5/22/12	1109	6.21	—
	1525	5.85	RESAMPLING BEGAN, PURGE RATE - 150 mL/min
	1537	8.20	AFTER SAMPLE COMPLETION

(SENT SAMPLE COLLECTED 5/22/12 AT 1525 TO LAB)

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 75°
Wind: CALM
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-16
Date: 5/21/12 | 5/22/12
Time at Well Site: 1625 | 1548
Time of Sample Collection: 1645 | 1550
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 7.69 feet
Volume of Water in Well: 6.24 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 6.24 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.67 ft TOC
Depth to Water: 5.31 ft TOC (5/21/12)
Column of Water in Well: 7.69 ft
Depth to Water after Purge: 9.69 ft TOC

Appearance of Sample: 5/21/12 SLIGHTLY CLOUDY, NO ODOR; 5/22/12 CLEAR, NO ODOR

WELL PURGE CONTROL

	5/21/12 Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	5/22/12 Purge 6
Time:	1633	1636	1639	1642	1645	1603
Volume Removed (liters):	0.45	0.9	1.35	1.8	2.25	-
pH:						
Specific Conductance (uS/cm):						
Temperature (Degrees C):						
WATER LEVEL (FT) ~~Turbidity (NTU)~~:						
Eh (millivolts):						
DO (mg/l) :						

Starting Purge Time: 1630
Ending Purge Time: 1645
Average Purge Rate: 150 ml/min
Total Volume Purged: 2.25 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 5-23-12-01
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-1
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/21/12	1630	5.35	PRIOR TO PURGE
	1634	—	PURGE RATE - 150 mL/min
	1656	11.74	AFTER SAMPLE COMPLETION
5/22/12	1110	7.49	-
	1550	7.16	RESAMPLING BEGAN, PURGE RATE - 150 mL/min
	1600	9.30	AFTER SAMPLE COMPLETION

(SENT SAMPLE COLLECTED 5/22/12 AT 1550 TO LAB)

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 75°
Wind: CALM
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-17
Date: 5/21/12 | 5/22/12 *
Time at Well Site: 1700 | 1610
Time of Sample Collection: 1719 | 1615
Sampled by: JGJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 7.9 feet
Volume of Water in Well: 6.38 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 6.38 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.41 ft TOC
Depth to Water: 5.10 ft TOC (5/21/12)
Column of Water in Well: 7.9 ft
Depth to Water after Purge: 9.33 ft TOC

Appearance of Sample: 5/21/12 SLIGHTLY CLOUDY, NO ODOR; 5/22/12 SLIGHTLY CLOUDY, NO ODOR

WELL PURGE CONTROL

	5/21/12 Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	5/22/12 Purge 6
Time:	1707	1710	1713	1716	1719	1633
Volume Removed (liters):	0.45	0.90	1.35	1.8	2.25	—
pH:	7.24	7.13	7.09	7.08	7.11	7.22
Specific Conductance (uS/cm):	594	591	599	598	603	662
Temperature (Degrees C):	15.47	15.75	15.86	16.50	15.62	16.11
WATER LEVEL (FT) ~~Turbidity (NTU)~~:	6.39	7.03	8.01	8.48	9.33	12.01
Eh (millivolts):	122.7	120.3	112.8	106.2	101.1	102.5
DO (mg/l):	3.87	2.80	2.53	2.32	2.18	4.82

Starting Purge Time: 1704
Ending Purge Time: 1719
Average Purge Rate: 150 ml/min
Total Volume Purged: 2.25 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: S-23-12-01
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-1
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JGJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/21/12	1704	5.13	PRIOR TO PURGE
	1709	—	PURGE RATE - 150 mL/min
	1729	11.75	AFTER SAMPLE COLLECTION
5/22/12	1111	9.39	—
	1615	8.89	RESAMPLING BEGAN, PURGE RATE 150 mL/min
	1630	11.55	AFTER SAMPLE COLLECTION

*(SENT SAMPLE COLLECTED 5/22/12 AT 1615 TO LAB)

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

	5/23/12	5/25/12
Temperature:	78°	50°s
Wind:	10-20 mph	CALM
Precipitation:	SUNNY	CLOUDY

SAMPLE DESCRIPTION

Sample ID: MW-18

	5/23/12	5/25/12 *
Date:		
Time at Well Site:	1230	0625
Time of Sample Collection:	1316	0625

Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 8.53 feet
Volume of Water in Well: 6.79 gallons L
Well Volumes to Purge: 1.5
Min. Volume to be Purged: 6.79 gallons L
Method of Purging: LOW FLOW
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.68 ft TOC
Depth to Water: 3.47 ft TOC (5/21/12)
Column of Water in Well: 8.53 ft
Depth to Water after Purge: 9.45 ft TOC

	5/23/12	5/25/12
Appearance of Sample:	CLEAR, NO ODOR	CLEAR, NO ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1248	1255	1302	1309	1316	
Volume Removed (liters):	0.45	1.5	2.55	3.60	4.65	
pH:	7.76	8.36	8.60	8.66	8.00	
Specific Conductance (uS/cm):	588	540	539	544	609	
Temperature (Degrees C):	19.97	19.41	18.68	21.17	13.37	
WATER LEVEL (ft) ~~Turbidity (NTU)~~:	4.61	5.76	7.15	8.04	9.45	
Eh (millivolts):	149.3	103.1	64.1	19.6	25.5	
DO (mg/l):	1.23	1.84	2.30	4.70	3.54	

Starting Purge Time: 1245
Ending Purge Time: 1316
Average Purge Rate: 150 ml/min
Total Volume Purged: 4.65 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 5-25-12-1
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-3
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (ft)	COMMENTS
5/23/12	1242	3.69	PRIOR TO PURGE
↓	1250	—	PURGE RATE 150 mL/min
	1328	DRY	DURING SAMPLE COLLECTION
5/24/12	0645	10.45	INSUFFICIENT RECHARGE TO RESAMPLE
5/25/12	0625	9.39	PRIOR TO RESAMPLING; BEGAN RESAMPLING, PURGE RATE 150 mL/m
↓	0638	DRY	DURING SAMPLE COLLECTION

* SENT SAMPLE COLLECTED 5/25/12 AT 0625 TO LAB

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

	5/22/12	5/23/12
Temperature:	75°	60°s
Wind:	SL BREEZE	5-15 mph
Precipitation:	SUNNY	MOSTLY SUNNY

SAMPLE DESCRIPTION

Sample ID: MW-19

Date:	5/22/12	5/23/12*
Time at Well Site:	1255	1015
Time of Sample Collection:	1325	1020

Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: –
Field Blank /Rinse Water type: –
Lot Number: –
Analyses: –

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.07 gal/ft
Column of Water in Well: 7.11 feet
Volume of Water in Well: 5.87 gallons ~~L~~
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 5.87 gallons ~~L~~
Method of Purging: LOW FLOW
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.81 ft TOC
Depth to Water : 4.89 ft TOC (5/22/12)
Column of Water in Well: 7.11 ft
Depth to Water after Purge: 9.75 ft TOC

	5/22/12	5/23/12
Appearance of Sample:	CLEAR, NO ODOR	CLEAR, NO ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1305	1309	1313	1317	1321	1325
Volume Removed (liters):	0.45	1.05	1.65	2.25	2.85	3.45
pH:	7.32	7.23	7.31	7.34	7.34	7.32
Specific Conductance (uS/cm):	926	870	801	761	756	745
Temperature (Degrees C):	16.05	15.61	15.62	15.81	15.83	15.84
Turbidity (NTU):	5.46	6.11	6.93	7.85	8.75	9.75
Eh (millivolts):	-46.6	-41.7	-33.7	-17.7	-11.1	-4.1
DO (mg/l) :	4.73	0.99	0.72	0.61	0.67	0.71

Starting Purge Time: 1302
Ending Purge Time: 1325
Average Purge Rate: 150 ml/min
Total Volume Purged: 3.45 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 5-23-12-02
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-1
Lab Name: TEST AMERICA
Air Bill #: –

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (ft)	COMMENTS
5/22/12	1302	4.93	PRIOR TO SAMPLING
↓	1306	—	PURGE RATE 150 mL/min
	1335	DRY	COMPLETED SAMPLE COLLECTION (1 L AMBER JAR NEARLY FULL)
5/23/12	1020	9.81	PRIOR TO RESAMPLING; BEGAN RESAMPLING, PURGE RATE 150 mL/m
	1035	DRY	COMPLETED SAMPLE COLLECTION

* SENT SAMPLE COLLECTED 5/23/12 AT 1020 TO LAB

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW20
Date: 5/22/12 / 5/23/12*
Time at Well Site: 1216 / 0855
Time of Sample Collection: 1241 / 0905
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 71° / 60's
Wind: CALM / 5-15 mph
Precipitation: SUNNY / MOSTLY SUNNY

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 7.63 feet
Volume of Water in Well: 6.11 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 6.11 gallons L
Method of Purging: LOW FLOW
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.51 ft TOC
Depth to Water : 4.89 ft TOC (5/21/12)
Column of Water in Well: 7.11 ft
Depth to Water after Purge: 9.75 ft TOC

Appearance of Sample: 5/22/12 SL CLOUDY, NO ODOR; 5/23/12 CLEAR, NO ODOR

WELL PURGE CONTROL

	5/22/12 Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	5/23/12 Purge 6
Time:	1227	1231	1235	1239	1241	0923
Volume Removed (liters):	0.45	1.05	1.65	2.25	2.85	—
pH:	7.26	7.12	7.18	7.16	7.17	7.15
Specific Conductance (uS/cm):	824	794	774	736	725	669
Temperature (Degrees C):	15.49	15.13	15.57	15.61	15.52	15.14
Turbidity (NTU):	6.14	7.11	8.01	9.12	9.91	8.68
Eh (millivolts):	58.7	61.6	59.5	63.0	64.6	—
DO (mg/l) :	3.25	1.42	3.26	3.26	3.68	—

Starting Purge Time: 12.24
Ending Purge Time: 1241
Average Purge Rate: 150 ml/min
Total Volume Purged: 2.85 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: S-23-12.02
Shuttle ID: FEDEX
Trip Blank ID: TRIP BLANK-1
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft 1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/22/12	1224	4.66	PRIOR TO PURGE
	1229	-	PURGE RATE 150 mL/min
	1248	DRY	DURING SAMPLE COLLECTION (1 L AMBER JAR ~4/5 FULL)
5/23/12	0855	4.75	PRIOR TO RESAMPLING
	0905	4.75	RESAMPLING BEGAN, PURGE RATE 150 mL/m
	0920	7.87	AFTER SAMPLE COMPLETION

*SENT SAMPLE COLLECTED 5/23/12 AT 0905 TO LAB

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 64°
Wind: BREEZE TO THE NORTH
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-22
Date: 5/22/21
Time at Well Site: 0955
Time of Sample Collection: 1038
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 7.5 feet
Volume of Water in Well: 1.2 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 6.12 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.73 ft TOC
Depth to Water : 4.5 ft TOC (5/21/12)
Column of Water in Well: 7.5 ft
Depth to Water after Purge: 4.86 ft TOC

Appearance of Sample: CLEAR, STRONG ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1004	1011	1018	1025	1032	1038
Volume Removed (liters):	1.050	2.1	3.15	4.2	5.25	6.3
pH:	6.77	6.78	6.80	6.81	6.82	6.81
Specific Conductance (uS/cm):	1625	1752	1808	1821	1849	1862
Temperature (Degrees C):	15.12	15.25	14.92	14.92	15.27	15.25
WATER LEVEL (FT) ~~Turbidity (NTU)~~:	4.82	4.82	4.85	4.89	4.86	4.86
Eh (millivolts):	-132.0	-143.2	-131.9	-124.1	-131.8	-134.2
DO (mg/l) :	1.02	0.57	0.27	0.23	0.21	0.18

Starting Purge Time: 0957
Ending Purge Time: 1038
Average Purge Rate: 150 ml/min
Total Volume Purged: 6.3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: S-23-12-01
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-1
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/22/12	0957	4.51	PRIOR TO PURGE
↓	1000	—	PURGE RATE - 150 mL/min
	1027	—	PURGE RATE - 150 mL/min
	1049	4.54	COMPLETED SAMPLE COLLECTION

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 51°
Wind: CALM
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-23 & DUP-2
Date: 5/22/12
Time at Well Site: 0835
Time of Sample Collection: 0931
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 7.38 feet
Volume of Water in Well: 6.05 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 6.05 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: Yes (NO)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.73 ft TOC
Depth to Water : 4.62 ft TOC (5/21/12)
Column of Water in Well: 7.38 ft
Depth to Water after Purge: 5.58 ft TOC

Appearance of Sample: CLEAR, ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	PURGE 7
Time:	0849	0856	0903	0910	0917	0924	09.31
Volume Removed (liters):	1.050	2.1	3.15	4.2	5.25	6.3	7.35
pH:	6.86	6.87	6.86	6.86	6.86	6.85	6.84
Specific Conductance (uS/cm):	1297	1342	1365	1379	1387	1373	1369
Temperature (Degrees C):	15.18	15.24	14.91	15.03	15.32	14.91	14.79
WATER LEVEL (FT) ~~Turbidity (NTU)~~:	5.27	5.33	5.38	5.42	5.45	5.51	5.58
Eh (millivolts):	-144.7	-147.8	-149.1	-125.9	-127.2	-133.7	-131.9
DO (mg/l) :	1.32	1.90	1.39	0.57	0.45	0.34	0.34

Starting Purge Time: 0842
Ending Purge Time: 0931
Average Purge Rate: 150 ml/min
Total Volume Purged: 7.55 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: S-23-12-01
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-1
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/22/12	0842	4.63	PRIOR TO PURGE
	0846	—	PURGE RATE - 150 mL/min
	0920	—	PURGE RATE - 150 mL/min
	0950	4.84	AFTER SAMPLE COMPLETION

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION
Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS
Temperature: 60° SUNNY
Wind: CALM
Precipitation: 0

SAMPLE DESCRIPTION
Sample ID: MW-24
Date: 5/21/12 5/22/12
Time at Well Site: 1105, 0645
Time of Sample Collection: 1117/1139 / 0645
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES
Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED
Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 7.52 feet
Volume of Water in Well: 6.14 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 6.14 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE
Total Depth of Well: 17.62 ft TOC
Depth to Water : 10.48 ft TOC
Column of Water in Well: 7.52 ft
Depth to Water after Purge: 16.78 ft TOC

Appearance of Sample: CLEAR, NO ODOR (5/21/12), CLEAR, NO ODOR (5/22/12

WELL PURGE CONTROL

	5/21/12					
	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1130	1133	1136	1139		
Volume Removed (liters):	1.55	2.0	2.45	2.90		
pH:	6.99	6.97	6.98	6.96		
Specific Conductance (uS/cm):	1065	1056	1059	1056		
Temperature (Degrees C):	16.95	16.67	16.73	16.78		
WATER LEVEL (FT) ~~Turbidity (NTU):~~	—	14.80	16.07	16.71		
Eh (millivolts):	51.7	15.0	12.0	11.1		
DO (mg/l) :	9.02	3.67	2.19	1.43		

Starting Purge Time: 1113
Ending Purge Time: 1139
Average Purge Rate: 150 ml/min
Total Volume Purged: 2.9 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 5-23-1201
Shuttle ID: FEDEX
Trip Blank ID: TRIP BLANK-1
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/21/12	1111	10.48	BEFORE PURGE
	1116	—	PURGE RATE - 150 mL/min
	1117	11.81	BEGAN COLLECTING GW SAMPLE
	1122	12.86	—
	1127	13.30	—
	1129	—	COMPLETED SAMPLE COLLECTION
	1130	—	PURGE RATE - 150 mL/min
	1133	14.80	—

CONTINUED ON BACK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70 / 60°S
Wind: CALM / 0-10 mph
Precipitation: SUNNY / CONSTANT CLOUDY

SAMPLE DESCRIPTION

Sample ID: MW-25S
Date: 5/21/12 / 5/23/12*
Time at Well Site: 1303 / 0800
Time of Sample Collection: 1326 / 0805
Sampled by: JW
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

1 LITER AMBER JAR BROKEN UPON ARRIVAL AT LAB. WILL RESAMPLE FOR TEH SEE THE BACK OF FORM FOR RESAMPLE NOTES

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 9.21 feet
Volume of Water in Well: 7.22 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 7.22 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 18.46 ft TOC
Depth to Water : 9.25 ft TOC 5/21/12
Column of Water in Well: 9.21 ft
Depth to Water after Purge: 16.0 ft TOC

	5/21/12	5/23/12
Appearance of Sample:	CLEAR, NO ODOR	CLEAR NO ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1311	1314	1317	1320	1323	1326
Volume Removed (liters):	0.45	0.90	1.35	1.80	2.25	2.70
pH:	6.91	6.87	6.88	6.89	6.90	6.88
Specific Conductance (uS/cm):	1849	1866	1867	1882	1991	2001
Temperature (Degrees C):	17.83	18.49	18.73	18.97	17.48	17.11
WATER LEVEL (FT) ~~Turbidity (NTU)~~:	11.40	12.65	13.24	14.84	15.42	16.0
Eh (millivolts):	-1.7	14.6	18.7	12.5	-24.0	-33.6
DO (mg/l) :	3.68	2.08	1.83	2.22	2.52	2.43

Starting Purge Time: 1308
Ending Purge Time: 1326
Average Purge Rate: 150 ml/min
Total Volume Purged: 2.70 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: S-23-12-1
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-1
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JW

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/21/12	1308	9.71	PRIOR TO PURGE
↓	1313	—	PURGE RATE 150 mL/m
	1333	17.99	AFTER SAMPLE COLLECTION
5/22/12	1102	17.49	INSUFFICIENT RECHARGE TO RESAMPLE
5/23/12	0805	15.84	PRIOR TO RESAMPLING, BEGAN RESAMPLING, PURGE RATE 150 mL/m
↓	0818	DRY	DURING SAMPLE COLLECTION

*SENT SAMPLE COLLECTED 5/23/12 AT 0800 TO LAB

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-25D & DUP-1
Date: 5/21/12 | 5/23/12 *
Time at Well Site: 1215 | 0730
Time of Sample Collection: 1247 | 0735
Sampled by: JRJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60° | 60°S
Wind: CALM | 0-10 mph
Precipitation: 0 | 0, PARTLY CLOUDY

FIELD BLANK NOTES

Field Blank Name: –
Field Blank /Rinse Water type: –
Lot Number: –
Analyses: –

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 12.17 feet
Volume of Water in Well: 9.13 gallons L
Well Volumes to Purge: 1-3
Min. Volume to be Purged: 9.13 gallons L
Method of Purging: LOW FLOW
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 28.71 ft TOC
Depth to Water : 16.83 ft TOC (5/21/12)
Column of Water in Well: 12.17 ft
Depth to Water after Purge: 24.94 ft TOC

Appearance of Sample: 5/21/12 CLEAR, NO ODOR | 5/23/12 CLEAR, NO ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1235	1239	1243	1247		
Volume Removed (liters):	0.6	1.2	1.8	2.4		
pH:	7.16	7.10	7.11	7.12		
Specific Conductance (uS/cm):	912	903	901	897		
Temperature (Degrees C):	19.19	19.34	18.92	19.04		
Turbidity (NTU):	18.48	21.36	23.14	24.94		
Eh (millivolts):	8.3	-5.1	-9.9	-2.7		
DO (mg/l) :	4.0	2.26	1.03	0.98		

Starting Purge Time: 1131
Ending Purge Time: 1247
Average Purge Rate: 150 ml/min
Total Volume Purged: 2.4 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 5-23-12-01
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-1
Lab Name: TEST AMERICA
Air Bill #: –

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JRJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/21/12	1230	16.73	PRIOR TO PURGE
	1236	–	PURGE RATE - 150 mL/min
	1258	28.46	AFTER SAMPLE COLLECTION
5/22/12	1103	27.79	INSUFFICIENT RECHARGE TO SAMPLE
5/23/12	0735	23.23	PRIOR TO SAMPLING; BEGAN RESAMPLING, PURGE RATE - 150 mL/min
	0758	28.55	COMPLETED SAMPLE COLLECTION WITH DUP-01

* SENT SAMPLE COLLECTED 5/23/12 AT 0735 TO LAB

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70°
Wind: CALM
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-26S
Date: 5/21/12
Time at Well Site: 1435
Time of Sample Collection: 1447
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 5.14 feet
Volume of Water in Well: 4.42 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 4.42 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 15.62 ft TOC
Depth to Water : 9.79 ft TOC
Column of Water in Well: 5.14 ft
Depth to Water after Purge: 13.36 ft TOC

Appearance of Sample: CLEAR, NO ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1441	1443	1445	1447		
Volume Removed (liters):	0.6	0.8	1.0	1.2		
pH:	7.32	7.16	7.09	7.11		
Specific Conductance (uS/cm):	952	926	946	958		
Temperature (Degrees C):	19.55	18.95	18.44	18.51		
WATER LEVEL (FT) ~~Turbidity (NTU)~~:	11.83	12.23	12.89	13.36		
Eh (millivolts):	36.7	29.2	34.5	29.8		
DO (mg/l) :	10.54	4.99	4.63	4.35		

Starting Purge Time: 1437
Ending Purge Time: 1447
Average Purge Rate: 150 ml/min
Total Volume Purged: 1.2 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: S-23-12-01
Shuttle ID: FED EX
Trip Blank ID: TRIPBLANK-1
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/21/12	1435	10.82	PRIOR TO PURGE
	1442	—	PURGE RATE - 150 mL/min
	1452	14.79	DURING SAMPLING
	1458	DRY	COMPLETED SAMPLE COLLECTION
5/22/12	1107	14.93	INSUFFICIENT RECHARGE TO SAMPLE
5/23/12	0725	14.62	INSUFFICIENT RECHARGE TO SAMPLE

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

	5/21/12	5/23/12
Temperature:	70°	60°S
Wind:	CALM	0-10 mph
Precipitation:	0	0, PARTLY CLOUDY

SAMPLE DESCRIPTION

Sample ID: MW-26D

Date:	5/21/12	5/23/12 *
Time at Well Site:	1340	0705
Time of Sample Collection:	1408	0710

Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 11.69 feet
Volume of Water in Well: 8.82 gallons L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 8.82 gallons L
Method of Purging: LOW FLOW
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 25 ft TOC
Depth to Water : 13.31 ft TOC (5/21/12)
Column of Water in Well: 11.69 ft
Depth to Water after Purge: 19.97 ft TOC

	5/21/12	5/23/12
Appearance of Sample:	CLEAR, NO ODOR	CLEAR, NO ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1351	1355	1359	1403	1407	1408
Volume Removed (liters):	0.6	1.2	1.8	2.4	3.0	3.150
pH:	7.18	7.14	7.13	7.15	7.17	7.18
Specific Conductance (uS/cm):	867	860	854	847	848	850
Temperature (Degrees C):	18.55	18.65	18.75	18.81	18.88	18.88
WATER LEVEL (FT) ~~Turbidity (NTU)~~:	15.45	16.11	17.40	18.65	19.60	19.97
Eh (millivolts):	45.1	42.4	39.1	37.1	32.8	30.6
DO (mg/l) :	1.84	1.37	1.03	0.83	0.87	0.81

Starting Purge Time: 1347
Ending Purge Time: 1408
Average Purge Rate: 150 ml/min
Total Volume Purged: 3.15 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 5-23-12-01
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-1
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)
5/21/12	1347	13.15
	1352	—
	1430	23.75
	1432	DRY
5/22/12	1105	23.80
5/23/12	0710	22.76
	0720	DRY

COMMENTS
PRIOR TO PURGE
PURGE RATE - 150 mL/min
DURING SAMPLING

COMPLETED SAMPLE COLLECTION WITH DUP 1
INSUFFICIENT RECHARGE TO RESAMPLE
PRIOR TO SAMPLING. RESAMPLING BEGAN, PURGE RATE 150mL,
COMPLETED SAMPLE COLLECTION
*(SENT SAMPLE COLLECTED 5/23/12 AT 0710 TO LAB)

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 53°
Wind: SL BREEZE
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-27
Date: 5/22/12
Time at Well Site: 0745
Time of Sample Collection: 0812
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: –
Field Blank /Rinse Water type: –
Lot Number: –
Analyses: –

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.37 gal/ft
Column of Water in Well: 7.25 feet
Volume of Water in Well: 6.28 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 6.28 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: ~~Yes~~ No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 14.51 ft TOC
Depth to Water : 7.25 ft TOC (5/21/12)
Column of Water in Well: 7.25 ft
Depth to Water after Purge: 12.52 ft TOC

Appearance of Sample: CLEAR, SL ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	0755	0758	0801	0804	0807	0812
Volume Removed (liters):	0.45	0.9	1.35	1.80	2.25	2.7
pH:	6.94	6.84	6.84	6.84	6.83	6.82
Specific Conductance (uS/cm):	1590	1596	1604	1564	1562	1599
Temperature (Degrees C):	15.61	15.77	15.34	15.35	15.66	15.75
Turbidity (NTU):	8.12	9.09	9.84	11.09	11.64	12.52
Eh (millivolts):	-47.0	-114.4	-99.7	-77.1	-54.2	-44.1
DO (mg/l) :	5.67	1.69	1.05	0.86	0.83	0.91

Starting Purge Time: 0752
Ending Purge Time: 0812
Average Purge Rate: 150 ml/min
Total Volume Purged: 2.7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: S-24-12-1
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-2
Lab Name: TEST AMERICA
Air Bill #: –

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/22/12	0752	6.91	PRIOR TO PURGE
	0756	–	PURGE RATE 150 mL/min
	0829	DRY	DURING SAMPLE COLLECTION
5/23/12	0700	13.66	INSUFFICIENT RECHARGE FOR SAMPLING
5/24/12	0625	13.06	INSUFFICIENT RECHARGE FOR SAMPLING

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 73° / 60°S
Wind: CALM / 5-10 mph
Precipitation: 0 / MOSTLY SUNNY

SAMPLE DESCRIPTION

Sample ID: MW-28
Date: 5/21/12 / 5/23/12*
Time at Well Site: 1505 / 0820
Time of Sample Collection: 1533 / 0825
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: –
Field Blank /Rinse Water type: –
Lot Number: –
Analyses: –

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 9.22 feet
Volume of Water in Well: 7.23 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 7.23 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.67 ft TOC
Depth to Water : 8.78 ft TOC (5/21/12)
Column of Water in Well: 9.22 ft
Depth to Water after Purge: 14.34 ft TOC

Appearance of Sample: 5/21/12 CLEAR, STRONG ODOR; 5/23/12 CLEAR, STRONG ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1518	1521	1524	1527	1530	1533
Volume Removed (liters):	0.45	0.9	1.35	1.8	2.25	2.7
pH:	7.11	6.94	6.95	7.00	7.01	7.02
Specific Conductance (uS/cm):	1571	1544	1536	1521	1508	1482
Temperature (Degrees C):	18.40	17.41	17.03	17.47	17.62	17.32
WATER LEVEL (FT) ~~Turbidity (NTU)~~:	9.61	10.27	12.22	13.31	13.73	14.34
Eh (millivolts):	-41.2	-71.7	-63.1	-27.0	-29.1	-38.7
DO (mg/l) :	10.57	2.43	1.18	1.18	1.27	1.39

Starting Purge Time: 1515
Ending Purge Time: 1533
Average Purge Rate: 150 ml/min
Total Volume Purged: 2.7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 5-23-12-02
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK 1
Lab Name: TEST AMERICA
Air Bill #: –

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/21/12	1515	8.67	PRIOR TO PURGE
↓	1520	–	PURGE RATE 150 mL/min
	1545	17.40	AFTER SAMPLE COLLECTION
5/22/12	1100	16.95	INSUFFICIENT RECHARGE TO RESAMPLE
5/23/12	0825	15.84	PRIOR TO RESAMPLING, RESAMPLING BEGAN, PURGE RATE 150 mL/min
↓	0835	DRY	AFTER SAMPLE COLLECTION

* SENT SAMPLE COLLECTED 5/23/12 AT 0825 TO LAB

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 75°
Wind: SLIGHT BREEZE
Precipitation: SUNNY

SAMPLE DESCRIPTION

Sample ID: MW-29
Date: 5/22/12
Time at Well Site: 1336
Time of Sample Collection: 1408
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 9.64 feet
Volume of Water in Well: 1.5 ~~gallons~~ L
Well Volumes to Purge: 1-3
Min. Volume to be Purged: 7.5 gallons
Method of Purging: LOW FLOW
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 20.35 ft TOC
Depth to Water : 11.36 ft TOC 5/21/12
Column of Water in Well: 9.64 ft
Depth to Water after Purge: 19.43 ft TOC

Appearance of Sample: CLEAR, STRONG ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1340	1347	1354	1401	1408	
Volume Removed (liters):	0.45	1.5	2.55	3.6	4.65	
pH:	7.27	7.17	7.18	7.21	7.19	
Specific Conductance (uS/cm):	1357	1356	1357	1352	1328	
Temperature (Degrees C):	15.54	15.40	15.18	15.41	15.33	
Turbidity (NTU):	12.23	14.15	16.49	17.35	19.43	
Eh (millivolts):	-33.7	-56.6	-56.3	-60.5	-58.4	
DO (mg/l) :	4.80	1.06	0.52	0.90	0.96	

Starting Purge Time: 1337
Ending Purge Time: 1408
Average Purge Rate: 150 ml/min
Total Volume Purged: 4.65 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: S-24-12-1
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-2
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/22/12	1337	10.75	PRIOR TO PURGE
	1342		PURGE RATE 150 mL/min
	1420	DRY	DURING SAMPLE COLLECTION. (1 L AMBER JAR ~ 1/4 FULL)
5/23/12	1010	19.43	INSUFFICIENT RECHARGE TO RESAMPLE
5/24/12	0635	18.89	INSUFFICIENT RECHARGE TO RESAMPLE
	1500	18.65	RESUMED FILLING AMBER JAR
	1505	DRY	DURING SAMPLE COLLECTION (1 L AMBER JAR ~ 5/6 FULL)

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70°
Wind: LIGHT BREEZE
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-30
Date: 5/22/12
Time at Well Site: 1120
Time of Sample Collection: 1147
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 8.14 feet
Volume of Water in Well: 6.53 ~~gallons~~ L
Well Volumes to Purge: 1-5
Min. Volume to be Purged: 6.53 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 25.45 ft TOC
Depth to Water: 17.86 ft TOC (5/21/12)
Column of Water in Well: 8.14 ft
Depth to Water after Purge: 23.21 ft TOC

Appearance of Sample: CLEAR, STRONG ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1132	1135	1138	1141	1144	1147
Volume Removed (liters):	1.05	1.5	1.95	2.4	2.85	3.3
pH:	7.12	7.13	7.13	7.18	7.21	7.13
Specific Conductance (uS/cm):	986	973	947	943	980	979
Temperature (Degrees C):	16.97	17.27	16.81	17.39	16.17	16.24
Turbidity (NTU):	19.67	20.53	21.44	21.62	22.41	23.21
Eh (millivolts):	-56.4	-60.1	-56.2	-51.6	-56.6	-60.8
DO (mg/l) :	1.38	1.45	1.62	2.02	2.28	1.37

Starting Purge Time: 1125
Ending Purge Time: 1147
Average Purge Rate: 150 ml/min
Total Volume Purged: 3.3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: S-24-12-1
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK 2
Lab Name: TEST AMERICA
Air Bill #: —

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/22/12	1125	17.43	PRIOR TO PURGE
↓	1130	—	PURGE RATE 150 mL/min
	1202	25.25	AFTER SAMPLE COLLECTION
5/23/12	0851	24.56	INSUFFICIENT RECHARGE TO RESAMPLE
5/24/12	0630	24.16	INSUFFICIENT RECHARGE TO RESAMPLE

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 75°
Wind: CALM
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-31
Date: 5/22/12
Time at Well Site: 0705
Time of Sample Collection: 0724
Sampled by: JDJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: –
Field Blank /Rinse Water type: –
Lot Number: –
Analyses: –

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.17 gal/ft
Column of Water in Well: 4.32 feet
Volume of Water in Well: 3.71 ~~gallons~~ L
Well Volumes to Purge: 1.5
Min. Volume to be Purged: 3.71 ~~gallons~~ L
Method of Purging: LOW FLOW
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.78 ft TOC
Depth to Water : 13.68 ft TOC (5/21/12)
Column of Water in Well: 4.32 ft
Depth to Water after Purge: 15.29 ft TOC

Appearance of Sample: CLEAR, NO ODOR

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	0721	0724				
Volume Removed (liters):	0.90	1.35				
pH:	7.03	7.08				
Specific Conductance (uS/cm):	1126	1132				
Temperature (Degrees C):	13.63	13.93				
WATER LEVEL (FT) ~~Turbidity (NTU):~~	14.85	15.29				
Eh (millivolts):	219.7	232.2				
DO (mg/l) :	4.73	2.93				

Starting Purge Time: 0715
Ending Purge Time: 0724
Average Purge Rate: 150 ml/min
Total Volume Purged: 1.35 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: S-24-12-01
Shuttle ID: FEDEX
Trip Blank ID: TRIPBLANK-2
Lab Name: TEST AMERICA
Air Bill #: –

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: JDJ

DATE	TIME	WATER LEVEL (FT)	COMMENTS
5/22/12	0715	13.54	PRIOR TO PURGE
	0720	14.69	DURING PURGE
	0722	–	PURGE RATE 150 ml/min
	0728	16.08	DURING SAMPLING
	0736	17.66	AFTER SAMPLE COLLECTION
5/23/12	0846	16.85	INSUFFICIENT RECHARGE TO RESAMPLE
5/24/12	0640	16.58	INSUFFICIENT RECHARGE TO RESAMPLE

Golder Associates

RECORD OF WATER LEVEL READINGS

(3)

Project Name: ELECTROLUX - JEFFERSON **Location:** JEFFERSON, IA **Project No.:** 10387305

Borehole No.	Date	Time	Measuring Device / Serial No.	Measurement Point (M.P)	Water Level Below M.P.	Correction To Survey Mark	Survey Mark Elevation	Water Level Elevation	By	Comments
MW-1	5/21/12	0645	WATER LEVEL IND.	TOC	5.03				JN	
MW-2		0646	STL0058		3.96					
MW-3		0655			2.68					
MW-4		0658			3.39					
MW-5		0710			6.51					
MW-6		0720			5.73					
MW-7		0815			5.03					
MW-8		0650			2.39					
MW-9		0715			5.12					
MW-10		0705			3.49					VALVE UP BROKEN
MW-11		0718			4.69					
MW-12		0725			5.69					
MW-13		0730			5.39					
MW-14		0735			2.63					
MW-15		0925			5.42					
MW-16		0928			5.31					
MW-17		0930			5.10					
MW-18		0745			3.47					
MW-19		0934			4.89					
MW-20		0936			4.67					
MW-21		0946	IP PROBE STL0024		4.10					
MW-22		0947			4.50					
MW-23		0948			4.62					
MW-24		1001			10.48					
MW-25S		0959			9.79					
MW-25D		1000			16.83					
MW-26S		0957			10.86					
MW-26D		0956			13.31					
MW-27		0949			7.25					
MW-28		0933			8.78					
MW-29		0935			11.36					
MW-30		0945			17.86					
MW-31		0932			13.60					

Sheet 1 of 1

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 50°F
Wind: BREEZY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-7
Date: 12/13/12
Time at Well Site: 1250
Time of Sample Collection: 12/14/12 @ 0800
Sampled by: ~~[illegible]~~ DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 7.30 feet
Volume of Water in Well: ~.67 gallons
Well Volumes to Purge: –
Min. Volume to be Purged: – gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.25 ft TOC
Depth to Water : 6.95 ft TOC
Column of Water in Well: ~.30 ft
Depth to Water after Purge: 14.21 ft TOC

Appearance of Sample: turbid, slight odor, no sheen

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1315	1320	1325	1330	1335	1333
Volume Removed (liters):	1.00	2	3	4	5	5.6
pH:	7.26	7.22	7.12	7.13	7.15	7.15
Specific Conductance (uS/cm):	0.765	0.768	0.766	0.767	0.768	0.767
Temperature (Degrees C):	12.73	12.43	12.65	12.65	12.72	12.75
~~Turbidity (NTU)~~:	8.67	4.65	11.17	12.22	13.26	19.21
Eh (millivolts):						
DO (mg/l) :	5.23	4.82	3.78	2.84	1.81	1.54

Starting Purge Time: 1310
Ending Purge Time: 1333 - RAN DRY
Average Purge Rate: 200 ml/min
Total Volume Purged: 5.6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3x ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	~~(1) Liter Amber jar~~	NA	None

Chain of Custody #: 12/14/12-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GWL - 12/13/12 @ 1600 - 1080 FT BTOC
12/14/12 @ 0800 - DTW = 6.94' TOC

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 35°F
Wind: 5 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-9
Date: 12/11/12
Time at Well Site: 12:45
Time of Sample Collection: 8:40 12/12/12
Sampled by: DMM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 11.31 feet
Volume of Water in Well: 1.84 gallons
Well Volumes to Purge: 5
max Min. Volume to be Purged: 9.22 gallons
Method of Purging: Geopump
Well Purged Dry?: ~~Yes~~ No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.49 ft TOC
Depth to Water : 5.18 ft TOC
Column of Water in Well: 11.31 ft
Depth to Water after Purge: ____ ft TOC

Appearance of Sample: Clear

DTW 7.45 8.08 8.95 9.42 10.02 10.82 11.01

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7	Purge 8
Time:	13:00	13:30	13:35	13:40	13:45	13:50	13:55	14:00
Volume Removed (liters):	0.265	0.530	0.795	1.060	1.325	1.590	1.855	2.120
pH:	7.18	7.18	7.12	7.09	7.09	7.09	7.09	7.09
Specific Conductance (mS/cm):	0.991	0.985	0.987	0.984	0.985	0.987	0.983	0.983
Temperature (Degrees C):	8.82	9.13	9.69	10.17	10.21	10.15	10.23	10.32
Turbidity (NTU):	—	—	—	—	—	—	—	—
ORP Eh (millivolts):	86.8	96.6	97.4	98.7	99.4	100.0	100.0	100.5
DO (mg/l) :	4.55	4.69	3.85	2.61	2.26	2.22	1.82	1.72

Starting Purge Time: 12:51
Ending Purge Time: 14:00
Average Purge Rate: 133 ml/min
Total Volume Purged: 2.120 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	2 ~~(2)~~ 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	NA	~~None~~
TEH	250 mL amber jar	NA	None

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

13:10 pump clamp lose, replaced pump
13:25 Started purging again
12/12/12 8:36 DTW - 10.62 ft bgs

NS

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~35°F
Wind: Mod wind
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-10
Date: 12/11/12
Time at Well Site: 14:05
Time of Sample Collection: 9:10
Sampled by: DWM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 6.32 feet
Volume of Water in Well: 1.03 gallons
~~Min.~~ max Well Volumes to Purge: 5
Min. Volume to be Purged: 5.15 gallons
Method of Purging: Geopump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.94 ft TOC
Depth to Water : 5.62 ft TOC
Column of Water in Well: 6.32 ft
Depth to Water after Purge: ____ ft TOC

Appearance of Sample: Clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
DTW	6.98	9.02	9.96	10.82	11.44	
Time:	14:15	14:23	14:28	14:33	14:38	
Volume Removed (liters):	0.665	1.330	0.995	1.560	2.225	
pH:	9.37	9.35	9.35	9.30	9.35	
Specific Conductance (µS/cm):	0.337	0.303	0.297	0.296	0.304	
Temperature (Degrees C):	10.76	11.06	11.12	11.37	11.58	
Turbidity (NTU):	—	—	—	—	—	
ORP Eh (millivolts):	83.1	82.0	81.4	82.0	81.2	
DO (mg/l) :	5.62	4.31	3.71	3.29	2.74	

Starting Purge Time: 14:10
Ending Purge Time: 14:38
Average Purge Rate: 133 ml/min
Total Volume Purged: 2.225 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	NA	None

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

12/12 9:04 DTW 10.63 ft bgs

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~30°F
Wind: Calm
Precipitation: None

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.62 ft TOC
Depth to Water : 11.53 ft TOC
Column of Water in Well: 1.09 ft
Depth to Water after Purge: ft TOC

SAMPLE DESCRIPTION

Sample ID: MW-11
Date: 12/11/12
Time at Well Site: 11:40
Time of Sample Collection: 14:15 12/13/12
Sampled by: PVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

14/13/12 voc collected using pump because low volume of water present in MW. Did not sample TEH, not enough water.

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 1.09 feet
Volume of Water in Well: 0.177 gallons
Well Volumes to Purge: 5
Min. Volume to be Purged: 0.885 gallons
Method of Purging: Geo pump
Well Purged Dry?: Yes No

Appearance of Sample: Cloudy, yellow.

DTW well dry

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	12:55					
Volume Removed (liters):						
pH:	6.97					
Specific Conductance (mS/cm):	0.896					
Temperature (Degrees C):	9.32					
Turbidity (NTU):	—					
ORP Eh (millivolts):	86.3					
DO (mg/l) :	3.31					

Starting Purge Time: 12:52
Ending Purge Time: 12:56
Average Purge Rate: N/A ml/min
Total Volume Purged: 1L liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~
TEH	250ml amber jar	NA	None

Chain of Custody #: 121312-2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

12/12/12 8:05 DTW - 12.35 & dry - not enough water to collect sample.
12/13/12 14:10 DTW - 12.28 & dry
12/14/12 7:20 DTW - Dry - TEH sample not collected

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 35°F
Wind: 10 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-12
Date: 12/13/12
Time at Well Site: 1038
Time of Sample Collection: 1125
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 6.11 feet
Volume of Water in Well: 0.56 gallons
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 2.80 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.75 ft TOC
Depth to Water : 5.64 ft TOC
Column of Water in Well: 6.11 ft
Depth to Water after Purge: 9.08 ft TOC

Appearance of Sample: some sediment/turbidity, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1049	1054	1059	1104		
Volume Removed (liters):	0.55	1.0	1.45	1.9		
pH:	7.78	7.80	7.81	7.85		
Specific Conductance (uS/cm):	0.717	0.747	0.750	0.749		
Temperature (Degrees C):	10.35	10.54	10.62	10.58		
DTW ~~Turbidity (NTU)~~:	6.54	7.81	8.65	9.08		
ORP ~~Eh~~ (millivolts):	74.7	76.2	77.0	77.5		
DO (mg/l) :	4.90	4.70	4.59	4.41		

Starting Purge Time: 1042
Ending Purge Time: 1104
Average Purge Rate: 90 ml/min
Total Volume Purged: 1.9 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) Liter Amber jar	NA	None
	250 mL		
VPH	(3) 40 mL vials	NA	HCL
EPH	(2) 1 L amber	NA	HCL

Chain of Custody #: 121312-1
Shuttle ID:
Trip Blank ID: Trip Blank (12/13/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40°F
Wind: none
Precipitation: rain

SAMPLE DESCRIPTION

Sample ID: MW-13
Date: 12/13/12
Time at Well Site: 12:00
Time of Sample Collection: 12:25
Sampled by: DVA
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 6.76 feet
Volume of Water in Well: 1.10 gallons
Well Volumes to Purge: 5
Min. Volume to be Purged: 5.51 gallons
Method of Purging: geopump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.62 ft TOC
Depth to Water : 6.86 ft TOC
Column of Water in Well: 6.76 ft
Depth to Water after Purge: ____ ft TOC

Appearance of Sample: Clear

DTW 8.47 9.60 10.39

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	12:10	12:15	12:20			
Volume Removed (liters):	0.575	1.150	1.725			
pH:	7.72	7.73	7.72			
Specific Conductance (mS/cm):	0.642	0.645	0.648			
Temperature (Degrees C):	11.96	11.91	11.92			
Turbidity (NTU):	—	—	—			
ORP Eh (millivolts):	50.7	49.3	47.9			
DO (mg/l) :	7.11	6.82	6.53			

Starting Purge Time: 12:05
Ending Purge Time: 12:20
Average Purge Rate: ~~105~~ 115 ml/min
Total Volume Purged: 1.725 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~4~~ 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	NA	None

Chain of Custody #: 121212-A
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 45°F
Wind: None
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-14
Date: 12/13/12
Time at Well Site: 12:40
Time of Sample Collection: 12:10
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 10.14 feet
Volume of Water in Well: 1.65 gallons
Well Volumes to Purge: 5
Min. Volume to be Purged: 8.25 gallons
Method of Purging: Gravity.
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.61 ft TOC
Depth to Water : 2.47 ft TOC
Column of Water in Well: 10.14 ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: Clear

DTW 3.42 4.16 5.15 6.32

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	12:51	12:56	13:01	13:06		
Volume Removed (liters):	0.500	1.000	1.500	2.000		
pH:	7.95	7.94	7.94	~~5.00~~ 8.01		
Specific Conductance (uS/cm):	0.334	0.343	0.349	0.350		
Temperature (Degrees C):	10.23	10.31	10.43	10.41		
Turbidity (NTU):	—	—	—	—		
ORP Eh (millivolts):	71.3	70.5	68.8	67.6		
DO (mg/l) :	7.52	5.84	5.31	5.01		

Starting Purge Time: 12:45
Ending Purge Time: 13:06
Average Purge Rate: 100 ml/min
Total Volume Purged: 2.000 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~
TEH	250 ml amber jar	NA	None

Chain of Custody #: 121312-2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30°F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-15
Date: 12/13/12
Time at Well Site: 0945
Time of Sample Collection: 0840 b/14/12
Sampled by: PJT
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

~~Field Blank Name:~~
~~Field Blank /Rinse Water type:~~
~~Lot Number:~~
~~Analyses:~~

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 5.26 feet
Volume of Water in Well: ~0.48 gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.31 ft TOC
Depth to Water: 7.05 ft TOC
Column of Water in Well: 5.26 ft
Depth to Water after Purge: 12.31 ft TOC

Appearance of Sample: SL. CLOUDY

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1002	1007	1010			
Volume Removed (liters):	1	2	2.45			
pH:	7.22	7.20	7.18			
Specific Conductance (uS/cm):	0.581	0.580	0.587			
Temperature (Degrees C):	13.2	13.66	13.6			
WL ~~Turbidity~~ (NTU):	9.40	11.32	12.31			
~~Eh (millivolts)~~:	—					
DO (mg/l):	2.58	2.03	1.63			

Starting Purge Time: 0957
Ending Purge Time: 1010 HANDDRY
Average Purge Rate: 200 ml/min
Total Volume Purged: 2.45 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3x ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	~~(1) Liter Amber jar~~	NA	None

Chain of Custody #: 121412-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GWL - 12/13/12 @ 1552 - 10.95

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40°F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-16
Date: 12/13/12
Time at Well Site: 1020
Time of Sample Collection: 855 12/14/12
Sampled by: [illegible]
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 5.7 feet
Volume of Water in Well: ~0.52 gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: PERISTALT
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.52 ft TOC
Depth to Water: 6.82 ft TOC
Column of Water in Well: 5.7 ft
Depth to Water after Purge: 12.52 ft TOC

Appearance of Sample:

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1038	1043	1048			
Volume Removed (liters):	1.5	2.25	3			
pH:	7.37	7.37	7.34			
Specific Conductance (uS/cm):	0.443	0.441	0.451			
Temperature (Degrees C):	15.32	13.43	13.54			
~~Turbidity~~ WL (NTU):	9.90	11.02	12.52			
Eh (millivolts):	—					
DO (mg/l):	3.67	2.70	2.43			

Starting Purge Time: 1023
Ending Purge Time: 1049
Average Purge Rate: 150 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	5x ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter amber jar~~	NA	None

Chain of Custody #: 121412-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GWL - 12/13/12 @ 1555 - 11.45 FT BTOC

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40° F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-17
Date: 12/13/12
Time at Well Site: 1065
Time of Sample Collection: 12/14/12 @ 0925
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 5.9 feet
Volume of Water in Well: ~0.54 gallons
Well Volumes to Purge: –
Min. Volume to be Purged: – gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: ~~Yes~~ No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.41 ft TOC
Depth to Water: 6.51 ft TOC
Column of Water in Well: 5.9 ft
Depth to Water after Purge: 12.22 ft TOC

Appearance of Sample: clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1108	1115	1116			
Volume Removed (liters):	2	3	3.6			
pH:	7.18	7.21	7.21			
Specific Conductance (uS/cm):	0.509	0.510	0.511			
Temperature (Degrees C):	13.13	13.10	13.15			
WL ~~Turbidity (NTU)~~:	9.95	11.23	12.15			
~~Eh (millivolts)~~:						
DO (mg/l):	4.01	3.72	3.58			

Starting Purge Time: 1058
Ending Purge Time: 1117 – RAN DRY
Average Purge Rate: 200 ml/min
Total Volume Purged: 3.6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3x ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	~~(1) Liter Amber jar~~	NA	None

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

12/14/12 @ 0910 - DTW = 10.39' TOC

GWL - 12/13/12 @ 1657 - 11.65 FT BTOC

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30°F
Wind: 10 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-18
Date: 12/12/12 ~~12/12/12~~
Time at Well Site: 0903 12/12/12
Time of Sample Collection: 1510 12/13/12
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 6.11 feet
Volume of Water in Well: 0.56 gallons
Max Well Volumes to Purge: 5
Max ~~Min~~ Volume to be Purged: 2.80 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: (Yes) No

Screen: 2-12' TOC

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.68 ft TOC
Depth to Water: 5.57 ft TOC
Column of Water in Well: 6.11 ft
Depth to Water after Purge: DRY ft TOC

Appearance of Sample: trace sediment/turbidity, no sheen, no odor

WELL PURGE CONTROL

	Purge 1 (0919)	Purge 2 (0924)	Purge 3 (0930)	Purge 4 (0935)	Purge 5	Purge 6
Time:	~~1019~~	~~1024~~	~~1030~~	~~1035~~	0940	0945
Volume Removed (liters):						
pH:	7.79	7.95	7.97	7.98	7.98	7.99
Specific Conductance (uS/cm):	0.644	0.668	0.669	0.665	0.664	0.673
Temperature (Degrees C):	8.64	9.05	6.84	6.76	6.83	9.77
DTW ~~Turbidity (NTU)~~:	7.31	7.46	8.26	8.71	9.31	~~9.77~~
DRP ~~Eh (millivolts)~~:	88.4	91.0	97.8	98.4	99.1	95.7
DO (mg/l):	6.00	4.40	5.28	5.03	4.30	3.93

0948

DRY

11.50

Starting Purge Time: 1015 0915
Ending Purge Time: 0948
Average Purge Rate: 125 ml/min
Total Volume Purged: liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~

Chain of Custody #: 121312-2
Shuttle ID:
Trip Blank ID: Trip Blank (12/13/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

* No sheen on purge water
* MW-18 sampled on 12/13/12 for VOC's at 15:10
- DTW = 9.51'

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 39°F
Wind: GUST
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-19
Date: 12/13/12
Time at Well Site: 0905
Time of Sample Collection: 0845 12/14/12
Sampled by: PJT
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 5.44 feet
Volume of Water in Well: ~.5 gallons
Well Volumes to Purge: –
Min. Volume to be Purged: – gallons
Method of Purging: DEDICATED
Well Purged Dry?: Yes / No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.81 ft TOC
Depth to Water : 6.37 ft TOC
Column of Water in Well: 5.44 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: CLEAR, ODORLESS

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	0925	0930	0935			
Volume Removed (liters):	2	3	4			
pH:	7.39	7.37	7.33			
Specific Conductance (uS/cm):	0.743	0.736	0.732			
Temperature (Degrees C):	11.95	11.52	11.56			
WL Turbidity (NTU):	9.41	10.21	11.11			
Eh (millivolts):	–					
DO (mg/l) :	5.78	5.55	5.47			

Starting Purge Time: 915
Ending Purge Time: 0935
Average Purge Rate: 200 ml/min
Total Volume Purged: 4 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3x 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1x 250ml Amber jar	NA	None

Chain of Custody #: 12312-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GWL - 12/13/12 @ 1534 - 10.65 FT BTOC

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40°F
Wind: 5 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-20
Date: 12/13/12
Time at Well Site: 11:20
Time of Sample Collection: 7:30 12/14/12
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 5.44 feet
Volume of Water in Well: 0.89 gallons
Well Volumes to Purge: 5
max Min. Volume to be Purged: 4.43 gallons
Method of Purging: Geo pump
Well Purged Dry?: Yes (No)
@ 11:47

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.51 ft TOC
Depth to Water : 6.07 ft TOC
Column of Water in Well: 5.44 ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: Clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
DTW	7.32	8.07	8.90	10.18	10.46	
Time:	11:30	11:35	11:40	11:45	11:47	
Volume Removed (liters):	0.600	0.200	1.800	2.400		
pH:	7.25	7.26	7.26	7.25		
Specific Conductance (µS/cm): m	0.629	0.643	0.645	0.646		
Temperature (Degrees C):	12.80	12.96	12.92	13.05		
Turbidity (NTU):	—	—	—	—		
ORP Eh (millivolts):	37.9	39.3	40.9	42.6		
DO (mg/l) :	5.08	4.10	3.96	3.19		

Starting Purge Time: 11:25
Ending Purge Time: 11:47
Average Purge Rate: 120 ml/min
Total Volume Purged: 2.400 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2) 40 ml~~ vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~

Chain of Custody #: 121412-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

12/14/12 7:30 5.35 in bgs DTW

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40 F
Wind: 20 - 25 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-21
Date: 12/12/12
Time at Well Site: 13:30
Time of Sample Collection: 15:40 DW sample
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 0.163 inches
Casing Volume: — gal/ft
Column of Water in Well: — feet
Volume of Water in Well: — gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: —
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.64 ft TOC
Depth to Water : 5.89 ft TOC
Column of Water in Well: — ft
Depth to Water after Purge: — ft TOC

Sampled product in well - labeled as MW-21-PROD filled two vials.

Appearance of Sample: Clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:						
Volume Removed (liters):						
pH:						
Specific Conductance (uS/cm):						
Temperature (Degrees C):						
Turbidity (NTU):						
Eh (millivolts):						
DO (mg/l) :						

Starting Purge Time: _____ Average Purge Rate: _____ ml/min
Ending Purge Time: _____ Total Volume Purged: _____ liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	2 (1) Liter Amber jar	NA	~~None~~ HCL
TEH	250 ml Amber jar	NA	None
WPH	3 40 ml vial	NA	HCL

Chain of Custody #: 121212 - 2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~30°F
Wind: 5 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-22
Date: 12/13/12
Time at Well Site: 8:40
Time of Sample Collection: 9:20
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: –
Field Blank /Rinse Water type: –
–
Lot Number: –
Analyses: –

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 5.59 feet
Volume of Water in Well: 0.911 gallons
Well Volumes to Purge: 5
Min. Volume to be Purged: 4.56 gallons
Method of Purging: Geopump
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.73 ft TOC
Depth to Water : 6.14 ft TOC
Column of Water in Well: 5.59 ft
Depth to Water after Purge: ____ ft TOC

Appearance of Sample: Clear

DTW 6.32 6.35 6.36 6.37 6.38

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	8:55	9:00	9:05	9:10	9:15	
Volume Removed (liters):	0.500	1.000	2.000	2.500	3.000	
pH:	6.82	6.84	6.84	6.84	6.83	
Specific Conductance (mS/cm):	1.507	1.588	1.705	1.721	1.735	
Temperature (Degrees C):	9.97	10.61	11.25	11.26	11.45	
Turbidity (NTU):	—	—	—	—	—	
Eh (millivolts):	-88.5	-106.0	-117.3	-119.1	-123.0	
DO (mg/l) :	3.32	1.17	0.64	0.57	0.50	

Starting Purge Time: 8:50
Ending Purge Time: 9:15
Average Purge Rate: 100 ml/min
Total Volume Purged: 3.00 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~
TEH	250 ml amber jar	NA	None

Chain of Custody #: 121312-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

TEH Dup 4
VOC Dup 4

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~30° F
Wind: none
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-23 and Duplicate 4
Date: 12/11/12 DVM 4/25/13
Time at Well Site: 15:45
Time of Sample Collection: 16:15
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: Duplicate 4
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 5.56 feet
Volume of Water in Well: 0.91 gallons
Well Volumes to Purge: 5
~~Min.~~ max. Volume to be Purged: 4.53 gallons
Method of Purging: Grab Pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.73 ft TOC
Depth to Water : 6.17 ft TOC
Column of Water in Well: 5.56 ft
Depth to Water after Purge: ft TOC

* Collected Duplicate 4 for VOC & TEH

Appearance of Sample: Clear

DTW 6.72 6.78 6.81 6.81

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	15:55	16:00	16:05	16:10	16:15	
Volume Removed (liters):	0.500	1.000	2.000	2.500	3.000	
m pH:	6.97	6.97	6.93	6.93	6.93	
Specific Conductance (µS/cm):	1.069	1.102	1.156	1.200	1.210	
Temperature (Degrees C):	10.92	11.29	11.75	12.00	12.02	
Turbidity (NTU):	—	—	—	—	—	
ORP Eh (millivolts):	-95.6	-71.8	-62.8	-72.6	-77.5	
DO (mg/l) :	3.48	0.48	0.33	0.34	0.34	

Starting Purge Time: 15:50
Ending Purge Time: 16:15
Average Purge Rate: 100 ml/min
Total Volume Purged: 3.000 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 12112-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 45°F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-24
Date: 12/12/12
Time at Well Site: 1425
Time of Sample Collection: 1450
Sampled by: PJJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 11.25 feet
Volume of Water in Well: 1.03 gallons
Well Volumes to Purge:
Min. Volume to be Purged: — gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.62 ft TOC
Depth to Water : 6.37 ft TOC
Column of Water in Well: 11.25 ft
Depth to Water after Purge: 13.65 ft TOC

Appearance of Sample: CLEAR, COLORLESS

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1431	1436	1441			
Volume Removed (liters):	1.5	2.25	3			
pH:	7.13	7.13	7.14			
Specific Conductance (uS/cm):	0.937	0.933	0.983			
Temperature (Degrees C):	15.32	15.22	15.18			
WL ~~Turbidity (~~NTU):	11.02	12.32	13.65			
Eh (millivolts):	—					
DO (mg/l) :	3.63	3.60	3.54			

Starting Purge Time: 1421
Ending Purge Time: 1441
Average Purge Rate: 1.50 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3X ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	~~(1) Liter Amber jar~~	NA	None

Chain of Custody #: 12/212-2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

100 ml / 100 = 50 / 2

600 / 100 = 6000 / 40

70 / 2 = 200 / 40

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 25° F
Wind: 10 mph
Precipitation: None

SAMPLE DESCRIPTION MW-25S

Sample ID: ~~MW-25S~~
Date: 12/10/12
Time at Well Site: 15:05
Time of Sample Collection: 15:40 12/10/12
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

12/12/12 - Sample of EPH continued - 2nd bottle filled 1/3 before going dry

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: ~~20.90~~ feet 11.99
Volume of Water in Well: ~~3.41~~ gallons
Well Volumes to Purge: ~~6.82~~
Min. Volume to be Purged: ~~6.82~~ gallons
Method of Purging: Geopump
Well Purged Dry?: Yes (No)

Dry when filling EPH bottle (1/3 full) Still need to fill 2/3 end plus 1 EPH bottle (12/12/12

12/13/12 resumed sampling of EPH at 15:40

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: ~~28.71~~ ft TOC 18.46
Depth to Water : ~~8.01~~ ft TOC 6.47
Column of Water in Well: ~~20.70~~ ft 11.99
Depth to Water after Purge: 16.16 ft TOC

Appearance of Sample: Clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	15:15	15:20	15:25	15:30	15:35	15:40
Volume Removed (liters):	0.750	1.500	2.250	2.950	3.700	4.450
pH:	7.12	7.10	7.07	7.06	7.06	7.06
Specific Conductance (uS/cm):	1.758	1.764	1.785	1.786	1.782	1.784
Temperature (Degrees C):	12.34	12.94	14.00	14.26	14.79	15.16
Turbidity (NTU):	—	—	—	—	—	—
ORP Eh (millivolts):	-84.2	-73.5	-69.5	-64.1	-79.1	-79.2
DO (mg/l) :	2.52	1.58	0.98	1.50	0.84	1.49

Purge 7

Starting Purge Time: 15:10
Ending Purge Time: 15:40
Average Purge Rate: 150 ml/min
Total Volume Purged: 4.450 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) Liter Amber jar	NA	~~None~~ HCL
VOC	2 40ml vials	NA	HCL
TEH	250 ml amber	NA	None

Chain of Custody #: 121312-3 ; 121212-2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:
Field Team Leader:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Purged dry 12/10/12 - 1 EPH Bottle 1/3 filled collected VOC & VOH, TEH
12/12/12 10:12 DTW 16.22 ft bgs Sounded well dry
12/13/12 15:40 DTW 12.42 ft

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 25°F
Wind: 10 MPH
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-25D
Date: 12/10/12
Time at Well Site: 13:50
Time of Sample Collection: 14:35
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 20.7 feet
Volume of Water in Well: 3.37 gallons
Well Volumes to Purge: 5
max/Min. Volume to be Purged: 16.87 gallons
Method of Purging: Geopump
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: ~~[illegible]~~ 28.71 ft TOC
Depth to Water : 8.01 ft TOC
Column of Water in Well: 20.7 ft
Depth to Water after Purge: 17.68 ft TOC

Appearance of Sample: Clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7	Purge 8
Time:	14:04	14:07	14:11	14:14	14:20	14:25	14:30	14:35
Volume Removed (liters):	0.240	0.600	1.080	1.440	1.680	1.920	2.160	2.000
pH:	7.16	7.07	7.05	7.03	7.04	7.05	7.05	7.07
Specific Conductance (mS/cm):	1.047	0.957	0.936	0.911	0.899	0.897	0.900	0.899
Temperature (Degrees C):	12.93	12.93	13.09	12.87	12.91	13.01	12.80	12.72
Turbidity (NTU):	—	—	—	—	—	—	—	—
ORP Eh (millivolts):	114.7	33.3	11.9	4.8	-0.6	-3.8	-7.2	-5.9
DO (mg/l) :	5.03	9.90	0.60	0.53	0.47	0.42	0.41	0.40

Starting Purge Time: 14:00
Ending Purge Time: 14:35
Average Purge Rate: 120 ml/min
Total Volume Purged: 2.400 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~

Chain of Custody #: 12112-2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 45 °F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-26S
Date: 12/12/12
Time at Well Site: 1510
Time of Sample Collection: 0810 12/14/12
Sampled by: [illegible]
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0913 gal/ft
Column of Water in Well: 3.22 feet
Volume of Water in Well: 0.75 gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: ~~Yes~~ No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 15.62 ft TOC
Depth to Water: 7.40 ft TOC
Column of Water in Well: 8.22 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: SL. CLOUDY

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1527	1532	1537			
Volume Removed (liters):	1.5	2.25	3			
pH:	7.28	7.26	7.17			
Specific Conductance (uS/cm):	0.998	0.941	0.963			
Temperature (Degrees C):	16.45	16.44	17.06			
WL ~~Turbidity~~ (NTU):	11.71	13.20	14.95			
Eh ~~(millivolts)~~:	—					
DO (mg/l):	4.35	4.07	3.44			

Starting Purge Time: 1517
Ending Purge Time: 1538
Average Purge Rate: 150 ml/min
Total Volume Purged: ~3.25 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3x ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1x 250 ~~(1) Liter~~ Amber jar	NA	None

Chain of Custody #: 121412-1
Shuttle ID:
Trip Blank ID:
Lab Name: TestAmerica
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GWL - 12/13/12 @ 1503 - 14.96 FT BTOC

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 45°F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-26D
Date: 12/12/12
Time at Well Site: 1552
Time of Sample Collection: 1630
Sampled by: PJJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 16.43 feet
Volume of Water in Well: 1.5 gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 25.00 ft TOC
Depth to Water : 8.57 ft TOC
Column of Water in Well: 16.43 ft
Depth to Water after Purge: 22.84 ft TOC

Appearance of Sample: CLEAR, COLORLESS

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	PURGE 7
Time:	1554	1559	1604	1609	1614	1619	1624
Volume Removed (liters):	1.5	2.25	3	3.75	4.5	5.25	6
pH:	7.01	7.04	7.24	7.37	7.39	7.37	7.34
Specific Conductance (uS/cm):	0.855	0.844	0.839	0.839	0.833	0.828	0.823
Temperature (Degrees C):	16.22	16.14	16.19	16.46	16.21	16.24	15.97
WL ~~Turbidity (NTU)~~:	12.82	14.80	16.93	18.25	20.15	21.47	22.84
~~Eh (millivolts)~~:	—	—	—	—	—	—	—
DO (mg/l) :	0.96	1.02	1.43	2.74	2.45	3.20	3.40

Starting Purge Time: 1544
Ending Purge Time: 1624
Average Purge Rate: 150 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	5X ~~12~~) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40°F
Wind: 15 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-27
Date: 12/12/12
Time at Well Site: 10:50
Time of Sample Collection: 15:00 12/12/12
Sampled by: OVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: ~~1.34~~ feet 8.24
Volume of Water in Well: 1.34 gallons
Well Volumes to Purge: 3
max ~~Min.~~ Volume to be Purged: 6.72 gallons
Method of Purging: Geopump
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 14.51 ft TOC
Depth to Water : 6.27 ft TOC
Column of Water in Well: 8.24 ft
Depth to Water after Purge: _____ ft TOC

* Filled VOC and VPH vials. Filled 1/30d EPH bottle 12/13/12 before going dry.

12/14/12 attempted to fill 1 EPH bottle, but was only filled 1/2 way before well going dry 7:55

Appearance of Sample: Clear

WTD 7.75 8.21 9.56 10.64 11.25 11.68 12.74

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	10:00	11:05	11:10	11:15	11:20	11:25	11:30
Volume Removed (liters):	0.550	1.100	1.650	2.200	2.750	3.300	3.650 well dry
pH:	6.97	6.95	6.97	6.95	6.97	6.96	6.93
Specific Conductance (µS/cm):	1.382	1.359	1.334	1.336	1.341	1.348	1.338
Temperature (Degrees C):	14.68	14.29	14.79	15.11	15.25	15.40	15.49
Turbidity (NTU):	—	—	—	—	—	—	—
ORP Eh (millivolts):	222.6	223.5	223.8	222.2	195.1	100.1	27.5
DO (mg/l) :	3.82	1.35	0.50	0.62	0.61	0.59	0.56

Starting Purge Time: 10:55
Ending Purge Time: 11:40
Average Purge Rate: 110 ml/min
Total Volume Purged: 3.550 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1 Liter Amber jar	NA	~~None~~ HCL
VPH	2 40ml vials	NA	~~None~~ HCL

Chain of Custody #: 121312-3
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

12/13/12 14:50 DTW 13.51
12/14/12 7:50 DTW 14.15

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 35°F
Wind: 15 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-28
Date: 12/11/12
Time at Well Site: 13:00
Time of Sample Collection: 14:05
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 10.59 feet
Volume of Water in Well: 0.97 gallons
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 4.86 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.67 ft TOC
Depth to Water : 7.18 ft TOC
Column of Water in Well: 10.59 ft
Depth to Water after Purge: 13.97 ft TOC

Screen interval: 13-18' TOC
Sample depth: ~15.5' TOC

Appearance of Sample: 12/13/12 clear, no sheen, no odor
12/11/12 clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	7
Time:	13:15	13:20	13:25	13:30	13:35	13:40	13:45
Volume Removed (liters):	0.45	0.82	1.2	1.57	1.95	2.32	2.70
pH:	6.98	6.98	6.98	6.99	6.98	7.00	6.99
Specific Conductance (~~µ~~mS/cm):	1.130	1.114	1.082	1.087	1.089	1.095	1.080
Temperature (Degrees C):	11.76	10.18	9.44	9.71	9.85	9.82	9.46
DTW ~~Turbidity (NTU)~~:	9.88	10.61	11.56	12.57	13.19	13.83	13.97
±10 ORP ~~Eh (millivolts)~~:	-15.2	-10.9	-7.6	-3.4	-3.1	-3.1	-1.9
0.1 <1 DO (mg/l) :	1.61	0.82	0.68	0.81	0.66	0.63	0.58

Starting Purge Time: 13:09
Ending Purge Time: 13:45
Average Purge Rate: 75 ml/min
Total Volume Purged: 2.7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
~~VPH~~/Volatiles (8260B)	6 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar	NA	None
~~EPH~~	250 mL		
~~VPH~~ EPH	(2) 1L amber jars	NA	HCL

Chain of Custody #: 121112-2
Shuttle ID:
Trip Blank ID: Trip Blank (12/11/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

* EPH and VPH samples ~~collected at 08:00 on 12/12/12~~ not collected on 12/12/12
- DTW = 14.53' TOC
- Determined to be insufficient recharge for samples on 12/12/12 at 0800
* EPH and VPH samples collected at 12:30 on 12/13/12
- DTW = 14.04'
- Second 1 L EPH bottle 3/4 filled, well ran dry

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30°F
Wind: 10 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-29
Date: 12/11/12
Time at Well Site: 0955
Time of Sample Collection: 1100
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 13.95 feet
Volume of Water in Well: 1.28 gallons
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 6.40 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 20.35 ft TOC
Depth to Water: 6.40 ft TOC
Column of Water in Well: 13.95 ft
Depth to Water after Purge: ft TOC

Screen interval = 16-21'

Appearance of Sample: clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	7	8	9
Time:	1010	1015	1020	1025	1030	1035	1040	1045	1050
Volume Removed (liters):	0.2	0.7	1.2	1.7	2.2	2.7	3.2	3.7	4.2
pH:	7.32	7.22	7.26	7.25	7.28	7.22	7.26	7.29	7.29
±3% Specific Conductance (mS/cm):	0.853	0.847	0.845	0.834	0.826	0.799	0.842	0.851	0.848
Temperature (Degrees C):	8.70	8.39	8.11	7.33	6.85	6.83	8.15	8.24	8.39
±10 OTW ~~Turbidity (NTU)~~:	8.41	8.41	10.01	10.51	11.08	12.46	14.38	14.39	15.16
±10% ORP ~~Eh (millivolts)~~:	50.1	49.0	49.6	46.9	42.8	39.9	34.1	33.2	32.0
DO (mg/l):	5.38	4.04	3.47	3.30	3.24	3.16	3.13	3.09	3.05

Starting Purge Time: 1008
Ending Purge Time: 1050
Average Purge Rate: 100 ml/min
Total Volume Purged: 4.2 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar 250 mL	NA	None

Chain of Custody #: 121112-2
Shuttle ID:
Trip Blank ID: Trip Blank (12/11/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

Note: Gusts of wind during sampling causes some dust to blow by while sample containers open

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

100 mL 60 oz
90s 95

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~30°F
Wind: 5 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-30
Date: 12/11/12
Time at Well Site: 8:45
Time of Sample Collection: 10:10
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 19.78 feet
Volume of Water in Well: 3.22 gallons
Well Volumes to Purge: 5
Min. Volume to be Purged: 16.12 gallons
Method of Purging: Geopump.
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 25.45 ft TOC
Depth to Water : 5.57 ft TOC
Column of Water in Well: 19.78 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7	Purge 8	Purge 9
DTW			6.34	9.74	10.59		12.02	12.80	13.24
Time:	9:20	9:25	9:30	9:35	9:40	9:45	9:50	9:55	10:00
Volume Removed (liters):	0.330	0.660	1.320	1.650	1.980	2.310	2.640	2.970	3.300
pH:	7.09	7.13	7.09	7.08	7.09	7.10	7.12	7.16	7.33
Specific Conductance (uS/cm):	0.960	0.919	0.896	0.872	0.861	0.862	0.858	0.858	0.848
Temperature (Degrees C):	7.19	7.33	7.42	7.80	8.27	8.28	8.60	8.59	8.94
Turbidity (NTU):	—	—	—	—	—	—	—	—	—
ORP Eh (millivolts):	128.0	93.8	57.0	47.7	38.6	37.8	40.3	44.9	47.5
DO (mg/l) :	4.00	2.03	1.71	1.10	0.67	0.70	1.07	2.69	4.90

Starting Purge Time: ~~9:00~~ 9:15
Ending Purge Time: 10:10
Average Purge Rate: 66 ml/min
Total Volume Purged: 3.960 liters

continue on back →

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (~~2~~) 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	NA	~~None~~

Chain of Custody #: 121212-2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

MW-30

	Purge 10	Purge 11
Time	10:05	10:10
DTW	14.52	15.46
Vol (l)	3.430	3.960
Spec Con (mS/cm)	0.843	0.836
Temp (c)	9.01	9.10
ORP	50.7	53.7
Do (mg/L)	5.15	4.81

Sampled

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30 °F
Wind: 15 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-31
Date: 12/12/12
Time at Well Site: 0805 12/12/12
Time of Sample Collection: 1550 12/13/12
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 10.81 feet
Volume of Water in Well: 0.99 gallons
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 4.96 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: (Yes) No

screen: 13'-18' TOC

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.78 ft TOC
Depth to Water : 6.97 ft TOC
Column of Water in Well: 10.81 ft
Depth to Water after Purge: DRY ft TOC

Appearance of Sample: clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	7	8
Time:	0827	0832	0837	1842	0848	0852	0857	0859
Volume Removed (liters):								
pH:	~~5.97~~ 7.15	7.23	7.31	7.27	7.26	7.24	7.20	DRY
Specific Conductance (uS/cm):	1.083	1.092	1.094	1.097	1.097	1.101	1.094	
Temperature (Degrees C):	8.92	8.78	8.13	7.83	8.45	8.96	10.54	
DTW ~~Turbidity (NTU)~~:	8.31	9.56	12.21	13.21	14.78	15.81	17.31	
ORP ~~Eh (millivolts)~~:	164.2	153.5	153.4	151.4	130.7	113.5	83.5	
DO (mg/l) :	5.37	3.17	5.52	3.15	2.57	2.29	2.03	

Starting Purge Time: 0825
Ending Purge Time: 0859
Average Purge Rate: 175 ml/min
Total Volume Purged: 7.60 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar	NA	None
	250 ml		

Chain of Custody #: 12/3/12-3
Shuttle ID:
Trip Blank ID: Trip Blank (12/13/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

12/12/12 - No sheen on purge water
12/13/12 - DTW = 16.68' TOC

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 45°F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-32
Date: 12/12/12
Time at Well Site: 1322
Time of Sample Collection: ~~1455~~ 12/13/12
Sampled by: PJT
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 6.70 feet
Volume of Water in Well: .62 gallons
Well Volumes to Purge: –
Min. Volume to be Purged: – gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 13 ft TOC
Depth to Water : 6.30 ft TOC
Column of Water in Well: 6.70 ft
Depth to Water after Purge: 12.31 ft TOC

Appearance of Sample: CLEAR, COLORLESS

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1340	1345	1350	1353	1356	
Volume Removed (liters):	1.5	2.25	3	3.45		
pH:	8.32	8.39	8.60	8.80		
Specific Conductance (uS/cm):	0.589	0.584	0.581	0.583		
Temperature (Degrees C):	15.84	15.84	15.72	15.71	DRY	
WL ~~Turbidity~~ (NTU):	8.85	10.17	11.28	12.12	12.31	
Eh (millivolts):	–	–	–	–		
DO (mg/l) :	1.44	1.28	1.16	0.66		

Starting Purge Time: 1330
Ending Purge Time:
Average Purge Rate: 150 ml/min
Total Volume Purged: liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3x ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1x 250ml ~~(1) Liter~~ Amber jar	NA	None

Chain of Custody #: 121312-2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30°F
Wind: BREEZY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-33
Date: 12/13/12
Time at Well Site: 0645
Time of Sample Collection: 0805
Sampled by: [illegible]
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 6.01 feet
Volume of Water in Well: 0.55 gallons
Well Volumes to Purge: 3X
Min. Volume to be Purged: 1.65 gallons
Method of Purging: PERS
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 13 ft TOC
Depth to Water : 6.99 ft TOC
Column of Water in Well: 6.01 ft
Depth to Water after Purge: 8.55 ft TOC

Appearance of Sample: CLEAR, COLORLESS (CLOUD OF TURBIDITY ON TOP)

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	0720	0725	0735	0740	0750	0800
Volume Removed (liters):	1	2	4	5	7	9
pH:	6.93	6.93	6.92	6.90	6.88	6.88
Specific Conductance (uS/cm):	0.896	0.899	0.938	0.949	0.960	0.963
Temperature (Degrees C):	15.41	15.44	16.02	16.20	16.44	16.51
~~Turbidity~~ (NTU):	7.96	8.00	8.25	8.37	8.45	8.55
~~Eh (millivolts)~~:						
DO (mg/l) :	1.38	0.95	0.83	0.68	0.58	0.46

Starting Purge Time: 0715
Ending Purge Time:
Average Purge Rate: 200 ml/min
Total Volume Purged: 9 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3X ~~(1)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1X 250 ml ~~(1) 1 liter~~ Amber jar	NA	None

Chain of Custody #: 121312-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40°F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-34
Date: 12/12/12
Time at Well Site: 1230
Time of Sample Collection: 12/13/12 1420
Sampled by: PSD
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 6.82 feet
Volume of Water in Well: 0.63 gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 13 ft TOC
Depth to Water : 6.18 ft TOC
Column of Water in Well: 6.82 ft
Depth to Water after Purge: DRY ft TOC

Appearance of Sample: CLEAR, SOME PVC FLAKES

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1255	1300	1305	1310		
Volume Removed (liters):	1	1.5	2	2.5		
pH:	7.06	7.04	7.00	7.00		
Specific Conductance (uS/cm):	0.961	0.962	0.963	0.971		
Temperature (Degrees C):	15.79	15.87	15.92	16.05		
WL ~~Turbidity (NTU)~~:	8.90	10.20	11.07			
Eh (millivolts):						
DO (mg/l) :	1.62	1.24	1.13	0.84		

Starting Purge Time: 1215
Ending Purge Time: 1310
Average Purge Rate: 100 ml/min
Total Volume Purged: 2.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1x 250mL (1) Liter Amber jar	NA	None

Chain of Custody #: 121312-2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~ 30°F
Wind: 15 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-35
Date: 12/12/12
Time at Well Site: 15:00
Time of Sample Collection: 15:15 for GW sample
Sampled by: PVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

Product sampled from well. @ 14:30. Sample ID MW-35-PROD

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: — inches
Casing Volume: — gal/ft
Column of Water in Well: — feet
Volume of Water in Well: — gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: —
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: — ft TOC
Depth to Water : ft TOC
Column of Water in Well: — ft
Depth to Water after Purge: — ft TOC

* ~~Sample was a~~ GW sample taken directly, w/ no purging of well because of product in the well.

Appearance of Sample: Clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:						
Volume Removed (liters):						
pH:						
Specific Conductance (uS/cm):						
Temperature (Degrees C):						
Turbidity (NTU):						
Eh (millivolts):						
DO (mg/l) :						

Starting Purge Time: —
Ending Purge Time: —
Average Purge Rate: — ml/min
Total Volume Purged: — liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (~~2~~) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	2 (~~1~~) Liter Amber jar	NA	HCL ~~None~~
TEH	250 ml Amber Jar	NA	~~HCL~~ None
VPH	3 40 ml VOA	NA	HCL

Chain of Custody #: 121212-2
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 45°F
Wind: 20 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-36S
Date: 12/12/12
Time at Well Site: 12:00
Time of Sample Collection: 12:25
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 7.65 feet
Volume of Water in Well: 1.25 gallons
Well Volumes to Purge: 5
Min. Volume to be Purged: 6.23 gallons
Method of Purging: Geopump
Well Purged Dry?: Yes / No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.68 ft TOC
Depth to Water : 5.03 ft TOC
Column of Water in Well: 7.65 ft
Depth to Water after Purge: ____ ft TOC

Appearance of Sample: Clear

DTW 6.07 6.61 7.26 9.92

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	12:05	12:10	12:15	12:20		
Volume Removed (liters):	0.510	1.020	1.530	2.040		
pH:	7.02	7.03	7.02	7.00		
Specific Conductance (µS/cm):	1.409	1.424	1.425	1.435		
Temperature (Degrees C):	14.82	14.60	14.75	14.73		
Turbidity (NTU):	—	—	—	—		
ORP Eh (millivolts):	-15.7	-25.9	-26.7	-27.7		
DO (mg/l) :	1.25	0.65	0.53	0.50		

Starting Purge Time: 12:00
Ending Purge Time: 12:20
Average Purge Rate: 105 ml/min
Total Volume Purged: 2.040 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	2 (1) Liter Amber jar	NA	~~None~~ HCL
TEH	250 ml Amber Jar	NA	None
VPH	3 40 ml vials	NA	HCL

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~ 30°F
Wind: 5 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-3CD
Date: 12/13/17
Time at Well Site: 7:35
Time of Sample Collection: 8:25
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: –
Field Blank /Rinse Water type: –
Lot Number: –
Analyses: –

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 13.26 feet
Volume of Water in Well: 2.16 gallons
Well Volumes to Purge: 5
Min. Volume to be Purged: 10.51 gallons
Method of Purging: Grundfos
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 19.74 ft TOC
Depth to Water : 6.48 ft TOC
Column of Water in Well: 13.26 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6			
pH	8.35		11.21	12.56	13.58	15.02	15.92	16.53	17.71
Time:	7:45	7:50	7:55	8:00	8:05	8:10	Purge 7 8:15	Purge 8 8:20	Purge 9 8:25
Volume Removed (liters):	0.800	1.200	1.600	2.400	3.000	3.600	4.200	4.800	5.400
pH:	7.03	7.05	7.07	7.13	7.16	7.16	7.16	7.16	7.14
Specific Conductance (mS/cm):	1.155	1.096	1.057	1.056	1.054	1.055	1.055	1.057	1.054
Temperature (Degrees C):	13.69	13.69	13.65	13.62	13.58	13.50	13.51	13.51	13.51
Turbidity (NTU):	—	—	—	—	—	—	—	—	—
ORP Eh (millivolts):	24.4	11.5	22.5	76.9	171.9	165.3	142.5	134.2	140.2
DO (mg/l) :	3.44	1.74	1.73	1.59	1.53	1.93	1.75	1.56	1.52

Starting Purge Time: 7:40
Ending Purge Time: 8:25
Average Purge Rate: 120 ml/min
Total Volume Purged: 5.400 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~
TEH	2x amber jar	NA	None

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~60°F
Wind: 5 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-32
Date: 12/11/12
Time at Well Site: ~~15:10~~ 15:10
Time of Sample Collection: 9:30 12/12/12
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 6.04 feet
Volume of Water in Well: 0.98 gallons
Well Volumes to Purge: 5
max Min. Volume to be Purged: 4.92 gallons
Method of Purging: Grab pump
Well Purged Dry?: (Yes) No @ 15:41

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.57 ft TOC
Depth to Water : 6.53 ft TOC
Column of Water in Well: 6.04 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
DTW	7.61	8.58	9.61	10.70	11.54	
Time:	15:21	~~15:26~~	~~15:31~~	~~15:36~~	~~15:41~~ 15:41	
Volume Removed (liters):	0.545	1.090	1.635	~~2.180~~	2.725	
pH:	7.22	7.22	7.22	7.22	7.15	
Specific Conductance (mS/cm):	0.863	0.836	0.835	0.824	0.819	
Temperature (Degrees C):	10.97	11.65	11.74	11.81	11.72	
Turbidity (NTU):	—	—	—	—	—	
ORP Eh (millivolts):	99.6	96.4	95.7	95.9	96.2	
DO (mg/l) :	6.50	5.12	4.47	4.23	3.62	

Starting Purge Time: ~~15:15~~ 15:15
Ending Purge Time: ~~15~~ 15:41
Average Purge Rate: 109 ml/min
Total Volume Purged: 2.725 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~
TEH	250 mL Amber Jar	NA	None

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

12/12/12 9:26 DVM 11:10 for bags

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/1A
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~35°F
Wind: 5 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-3E
Date: 12/11/12
Time at Well Site: 15:35
Time of Sample Collection: 15:50
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 5.36 feet
Volume of Water in Well: 0.87 gallons
Well Volumes to Purge: 5
max ~~Min.~~ Volume to be Purged: 4.37 gallons
Method of Purging: GeoPump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.59 ft TOC
Depth to Water : 7.23 ft TOC
Column of Water in Well: 5.36 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Clear

DTW 8.53 9.11 9.66

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	15:40	15:45	15:50			
Volume Removed (liters):	0.545	1.090	1.635			
pH:	7.28	7.29	7.29			
Specific Conductance (µS/cm):	0.792	0.778	0.780			
Temperature (Degrees C):	10.94	11.15	11.33			
Turbidity (NTU):	—	—	—			
ORP Eh (millivolts):	95.4	96.0	94.8			
DO (mg/l) :	5.72	5.47	5.44			

Starting Purge Time: 15:35
Ending Purge Time: 15:50
Average Purge Rate: 109 ml/min
Total Volume Purged: 1.635 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	2 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber Jar~~	~~NA~~	~~None~~
TEH	Unpreserved – 250 ml glass amber	NA	None

Chain of Custody #: 121112-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~ 90 °F
Wind: 5 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW - 39
Date: 12/11/12
Time at Well Site: 10:45
Time of Sample Collection: 7:45 12/12/12
Sampled by: RVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 7.06 feet
Volume of Water in Well: 1.15 gallons
Well Volumes to Purge: 5
max Min. Volume to be Purged: 5.75 gallons
Method of Purging: Geopump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.75 ft TOC
Depth to Water : 5.69 ft TOC
Column of Water in Well: 7.06 ft
Depth to Water after Purge: ____ ft TOC

Appearance of Sample: clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7	Purge 8	Purge 9
DTW		7.11	7.86		9.57		10.98	11.05	
Time:	10:55	11:00	11:05	11:10	11:15	11:20	11:25	11:30	well dry
Volume Removed (liters):	0.500	0.00	1.50	2.000	2.500	3.000	3.500	4.000	
pH:	7.12	7.13	7.17	7.20	7.18	7.15	7.14	7.15	
Specific Conductance (mS/cm):	0.966	0.987	0.988	0.988	0.989	0.992	0.985	0.988	
Temperature (Degrees C):	8.41	8.51	8.79	9.12	9.31	9.44	9.55	9.61	
Turbidity (NTU):	—	—	—	—	—	—	—	—	
ORP Eh (millivolts):	95.5	92.5	88.3	86.8	88.8	86.9	87.7	87.5	
DO (mg/l) :	7.85	6.30	4.75	3.80	3.36	2.87	2.15	1.82	

Starting Purge Time: 10:50
Ending Purge Time: 11:33
Average Purge Rate: 100 ml/min
Total Volume Purged: 4.000 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~
TEH	250 ml amber	NA	None

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

12/12/12 7:41 DTW - 11.02 A bgs

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

100ml / 45

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: ~30°F
Wind: 5 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-40
Date: 12/11/12
Time at Well Site: 12:00
Time of Sample Collection: 8:20 12/12/12*
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

*TEH 1/3 full when sorted at 12/12/12 8:20
finished collecting sample on 12/13/12 @ 4:00

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 4.57 feet
Volume of Water in Well: 0.745 gallons
Well Volumes to Purge: ~~3.725~~
Min. Volume to be Purged: 3.72 gallons
Method of Purging: Geo pump
Well Purged Dry?: (Yes) No
12:35

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: ~~15~~ 19.98 ft TOC
Depth to Water : 15.41 ft TOC
Column of Water in Well: ~~15.98~~ ft 4.57
Depth to Water after Purge: ft TOC

Appearance of Sample: clear

DTW 16.52 17.50 18.25 19.07

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	12:10	12:14	12:20	12:25	12:30	12:35
Volume Removed (liters):	0.655	1.310	1.965	2.610	2.265	2.920
pH:	7.39	7.35	7.19	7.19	7.24	7.17
Specific Conductance (µS/cm):	1.162	1.088	1.403	1.796	1.531	1.438
Temperature (Degrees C):	9.87	9.30	10.69	11.15	11.14	11.24
Turbidity (NTU):	—	—	—	—	—	—
ORP Eh (millivolts):	90.2	90.9	100.1	105.5	94.6	96.6
DO (mg/l) :	4.79	3.98	2.24	0.83	0.89	0.66* well was dry

Starting Purge Time: 12:05
Ending Purge Time: 12:35
Average Purge Rate: 133 ml/min
Total Volume Purged: 2.920 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	(1) Liter Amber jar	NA	None
*TEH	250 mL Amber	N/A	None

Chain of Custody #: 121312-2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

12/12/12 8:15 DTW - 19.45 ft bgs

22 FOW 3 16

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 35° F
Wind: 5 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-41
Date: 12/13/12
Time at Well Site: 10:25
Time of Sample Collection: 10:55
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 9.85 feet
Volume of Water in Well: 1.61 gallons
Well Volumes to Purge: 5
MRW Min. Volume to be Purged: 8.02 gallons
Method of Purging: Bailing
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.91 ft TOC
Depth to Water : 2.06 ft TOC
Column of Water in Well: 9.85 ft
Depth to Water after Purge: ____ ft TOC

Appearance of Sample: Clear

DTW 2.98 3.71 4.65 6.32

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	10:32	10:37	10:42	10:47		
Volume Removed (liters):	0.550	1.100	1.650	2.210		
pH:	7.26	7.27	7.25	7.27		
Specific Conductance (mS/cm):	0.915	0.926	0.977	0.915		
Temperature (Degrees C):	11.54	11.62	12.11	12.41		
Turbidity (NTU):	—	—	—	—		
ORP Eh (millivolts):	44.8	42.1	40.6	40.1		
DO (mg/l) :	4.87	2.83	2.59	2.31		

Starting Purge Time: 10:27
Ending Purge Time: 10:47
Average Purge Rate: 190 ml/min
Total Volume Purged: 2.210 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber Jar~~	~~NA~~	~~None~~
TEH	250 mL amber jar	NA	None

Chain of Custody #: 121312-1
Shuttle ID:
Trip Blank ID: 1
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 35°F
Wind: 10 mph
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-42
Date: 12/13/12
Time at Well Site: 9:35
Time of Sample Collection: 10:05
Sampled by: DVM
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: —
Field Blank /Rinse Water type: —
—
Lot Number: —
Analyses: —

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 6.93 feet
Volume of Water in Well: 1.13 gallons
Well Volumes to Purge: 5
Min. Volume to be Purged: 5.65 gallons
Method of Purging: GeoPump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.45 ft TOC
Depth to Water : 4.52 ft TOC
Column of Water in Well: 6.93 ft
Depth to Water after Purge: ____ ft TOC

Appearance of Sample: Clear

DTW	5.90	6.47	7.31	8.05		

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	9:45	9:50	9:55	10:00		
Volume Removed (liters):	0.550	1.100	1.650	2.200		
pH:	7.31	7.31	7.31	7.31		
Specific Conductance (µS/cm):	0.946	0.962	0.967	0.973		
Temperature (Degrees C):	9.59	9.83	10.16	10.40		
Turbidity (NTU):	—	—	—	—		
ORP Eh (millivolts):	8.0	10.6	12.4	14.3		
DO (mg/l) :	3.56	3.04	2.52	2.78		

Starting Purge Time: 9:40
Ending Purge Time: 10:00
Average Purge Rate: 110 ml/min
Total Volume Purged: 2.200 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	7 (2) 40 ml vials	NA	HCL
~~otal Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~
TEH	250 ml Amber jar	NA	None

Chain of Custody #: 121312-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30°F
Wind: 5 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-43S
Date: 12/13/12
Time at Well Site: 0725
Time of Sample Collection: 0820
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 6.91 feet
Volume of Water in Well: 0.63 gallons
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 3.17 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

screen: 3 - 13' TOC

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.77 ft TOC
Depth to Water : 5.86 ft TOC
Column of Water in Well: 6.91 ft
Depth to Water after Purge: 9.32 ft TOC

Appearance of Sample: clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	0748	0753	0758	0803	0808	
Volume Removed (liters):	0.6					
pH:	7.20	7.21	7.22	7.25	7.26	
Specific Conductance (mS/cm):	0.908	0.923	0.918	0.915	0.915	
Temperature (Degrees C):	11.23	10.09	9.37	9.06	9.06	
DTW ~~Turbidity (NTU)~~:	7.51	7.81	8.31	8.99	9.32	
ORP ~~Eh (millivolts)~~:	182.2	205.8	198.1	195.8	195.1	
DO (mg/l) :	5.08	4.50	4.32	4.23	4.26	

Starting Purge Time: ~~0839~~ 0739
Ending Purge Time:
Average Purge Rate: 75 ml/min
Total Volume Purged: liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar	NA	None
	250 ml		

Chain of Custody #: 121312-1
Shuttle ID:
Trip Blank ID: Trip Blank (12/13/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30°F
Wind: 10 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-43I
Date: 12/13/12
Time at Well Site: 0830
Time of Sample Collection: 0920
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 19.34 feet
Volume of Water in Well: 1.77 gallons
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 8.77 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 29.10 ft TOC
Depth to Water : 9.76 ft TOC
Column of Water in Well: 19.34 ft
Depth to Water after Purge: 15.30 ft TOC

screen: 25-30'

Appearance of Sample: clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time	0843	0848	~~0844~~ 0854	~~0849~~ 0859	0904	
Volume Removed (liters)	0.6	1.1	1.7	2.2	2.7	
pH	7.29	7.34	7.34	7.36	7.39	
Specific Conductance (µS/cm)	0.697	0.702	0.702	0.705	0.709	
Temperature (Degrees C)	10.55	11.37	11.34	11.22	10.96	
DTW ~~Turbidity (NTU)~~	11.17	12.79	14.04	14.66	15.30	
ORP ~~Eh (millivolts)~~	3.9	-35.1	-58.6	-55.3	-50.9	
DO (mg/l)	6.97	1.91	1.64	1.62	1.60	

Starting Purge Time: 0835
Ending Purge Time: 0904
Average Purge Rate: 100 ml/min
Total Volume Purged: 2.7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar 250 mL	NA	None

Chain of Custody #: 12/3/12-1
Shuttle ID:
Trip Blank ID: Trip Blank (12/13/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30°F
Wind: 10 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-43D
Date: 12/13/12
Time at Well Site: 0935
Time of Sample Collection: 1010
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 29.59 feet
Volume of Water in Well: 4.82 gallons
Well Volumes to Purge: 5
Min. Volume to be Purged: 24.11 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes ~~No~~

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 40.75 ft TOC
Depth to Water : 11.16 ft TOC
Column of Water in Well: 29.59 ft
Depth to Water after Purge: 14.42 ft TOC

Screen: 33-38' TOC

Appearance of Sample: clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	0940	0945	0950	0955		
Volume Removed (liters):	1.0	1.5	2	2.5		
pH:	7.36	7.33	7.33	7.34		
Specific Conductance (uS/cm):	0.866	0.870	0.870	0.870		
Temperature (Degrees C):	12.58	12.05	11.90	12.00		
DTW ~~Turbidity (NTU)~~:	13.37	13.66	13.97	14.42		
ORP ~~Eh (millivolts)~~:	44.2	51.4	54.4	56.1		
DO (mg/l) :	3.13	2.80	2.66	2.68		

Starting Purge Time: 0930
Ending Purge Time: 0955
Average Purge Rate: 100 ml/min
Total Volume Purged: 2.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar 250 mL	NA	None

Chain of Custody #: 12/13/12-1
Shuttle ID:
Trip Blank ID: Trip Blank (12/13/12)
Lab Name: Test A.M.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 35°F
Wind: 10 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-44
Date: 12/12/12
Time at Well Site: 1000
Time of Sample Collection: 1045
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 16.10 feet
Volume of Water in Well: 1.48 gallons
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 7.38 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 22.52 ft TOC
Depth to Water: 6.42 ft TOC
Column of Water in Well: 16.10 ft
Depth to Water after Purge: 14.43 ft TOC

screen: 17-22' TOC

Appearance of Sample: clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1011	1016	1021	1028	1033	1038
Volume Removed (liters):	0.8	1.3	1.8	2.5	3.0	3.5
pH:	7.18	7.10	7.23	7.32	7.34	7.36
Specific Conductance (uS/cm):	0.956	0.967	0.962	0.961	0.962	0.961
Temperature (Degrees C):	11.06	10.52	10.81	10.66	10.57	10.74
DTW ~~Turbidity (NTU)~~:	8.19	9.05	10.61	12.62	13.39	14.43
ORP ~~Eh (millivolts)~~:	9.1	3.8	-5.9	1.3	6.5	8.0
DO (mg/l):	4.99	2.39	1.96	1.56	1.51	1.47

Starting Purge Time: 1006
Ending Purge Time: 1038
Average Purge Rate: 100 ml/min
Total Volume Purged: 3.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar	NA	None
	250 mL		

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

* bubble noticed under membrane of ORP probe during decontamination. Membrane and fluid replaced at 1120 on 12/12/12.

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 35° F
Wind: 15 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-45 and Duplicate 3 DVM 4/25/13
Date: 12/11/12
Time at Well Site: ~~1215~~ 1115
Time of Sample Collection: 1215
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: Duplicate 3
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 20.95 feet
Volume of Water in Well: ~~1.9~~ gallons 3.41
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 17.07 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 29.5 ft TOC
Depth to Water : 8.55 ft TOC 8.55
Column of Water in Well: 20.95 ft
Depth to Water after Purge: 13.26 ft TOC

screen: 25'-30' TOC

Appearance of Sample: Clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1135	1140	1145	1150	1155	1200
Volume Removed (liters):	0.2	0.7	1.2	1.7	2.2	2.7
pH:	7.02	7.01	7.02	7.05	7.07	7.05
Specific Conductance (~~dS~~ mS/cm):	0.860	~~0.894~~	0.619	0.621	0.609	0.607
Temperature (Degrees C):	11.37	9.59/9.44	9.39	9.48	9.75	9.76
DTW ~~Turbidity (NTU)~~:	9.79	10.72	11.09	11.67	12.51	13.26
±10% ORP ~~Eh (millivolts)~~:	-13.9	-9.2	-5.1	0.4	4.4	5.3
± 0.1 DO (mg/l) :	2.02	0.80	0.68	0.54	0.51	0.48

Starting Purge Time: ~~12:17~~ 11:33
Ending Purge Time: 12:00
Average Purge Rate: 100 ml/min
Total Volume Purged: 2.7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar 250 mL	NA	None

Chain of Custody #: 121112-2
Shuttle ID:
Trip Blank ID: Trip Blank (12/11/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

* Duplicate 3 collected at MW-45 at approximately 12:15
Collected for VOC & TEPH - DVM

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/1A
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 20°F
Wind: 5 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-46 and Duplicate 2 DVM 4/25/13
Date: 12/11/12
Time at Well Site: 0750
Time of Sample Collection: 0920
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

*Duplicate 2 collected for VOC's and TEH

FIELD BLANK NOTES

Field Blank Name: DUPLICATE 2
Field Blank /Rinse Water type:

Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: ~~4.82~~ gal/ft 0.0918
Column of Water in Well: 29.58 feet
Volume of Water in Well: 4.82 gallons
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 24.10 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 41.17 ft TOC
Depth to Water: 11.59 ft TOC
Column of Water in Well: 29.58 ft
Depth to Water after Purge: 12.49 ft TOC

Sample = 35.5' TOC

*insufficient amount of water in tubing to complete Duplicate 2 VOC sample (see below)

Appearance of Sample: clear, no odor, no sheen

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	7	8
Time:	0815	0820	0825	0830	0835	0840	0845	0850
Volume Removed (liters):	0.3	0.67	1.05	1.42	1.8	2.17	2.55	2.92
m pH:	4.80	6.93	6.94	6.96	6.95	6.95	6.96	6.97
±3% Specific Conductance (~~µ~~S/cm):	0.618	0.592	0.573	0.564	0.568	0.562	0.565	0.563
±10% Temperature (Degrees C):	11.01	9.24	8.63	8.27	8.45	8.13	8.33	8.40
DTW ~~Turbidity (NTU)~~:	12.39	12.40	12.41	12.43	12.44	12.46	12.47	12.49
±10 ORP ~~Eh (millivolts)~~:	219.6	102.2	76.2	58.7	56.2	50.1	43.5	40.2
±10% or 0.1 if <1 DO (mg/l):	3.80	1.17	0.82	0.69	0.66	0.57	0.53	0.50

Starting Purge Time: 0811
Ending Purge Time: 0850
Average Purge Rate: 75 ml/min
Total Volume Purged: 2.92 liters

SAMPLE CONTAINERS REQUIRED

	Analysis	Container Number, Type and Size	Filter	Preservative and Source
MW-46 (	Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
	otal Extractable Hydrocarbons	(1) Liter Amber jar	NA	None
		250 mL		
Dup 2 (	8260B	(3) 40 mL vials	NA	HCL
	TEH	(1) 250 mL amber jar	NA	none

Chain of Custody #: M1112-2
Shuttle ID:
Trip Blank ID: Trip Blank (12/11/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

VOCs: Vials 1 and 2 of Duplicate 2 not filled with same volume (plug) of water inside tubing as MW-46 (all 3 vials) and vial 3 of Duplicate 2. Tubing empty after 4 vials, then placed back in well and refilled to complete Duplicate sample.

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30°F
Wind: GUST
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-47S
Date: 12/13/12
Time at Well Site: 0818
Time of Sample Collection: 1520
Sampled by: PJJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 8.40 feet
Volume of Water in Well: ~.9 gallons
Well Volumes to Purge: –
Min. Volume to be Purged: – gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 18 ft TOC
Depth to Water : 8.40 ft TOC
Column of Water in Well: 9.6 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: CLEAR COLORLESS

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	835	840	845	850		
Volume Removed (liters):	1.5	2.25	3	3.75		
pH:	6.90	6.93	6.92	6.88		
Specific Conductance (uS/cm):	1.695	1.695	1.691	1.697		
Temperature (Degrees C):	15.79	15.82	15.85	15.81		
WL ~~Turbidity~~ (NTU):	12.90	14.50	15.57	16.55		
Eh (millivolts):	–					
DO (mg/l) :	0.92	0.90	0.71	0.95		

Starting Purge Time: 825
Ending Purge Time: 850
Average Purge Rate: 150 ml/min
Total Volume Purged: 3.75 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3x ~~10~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1x 250ml ~~1L~~ Amber jar	NA	None

Chain of Custody #: 121312-2
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 28°F
Wind: 10 mph ENE
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: ~~MW-30~~ MW-47D and Duplicate 1 DLB
Date: 12/10/12 nm 4/25/13
Time at Well Site: 1445
Time of Sample Collection: 1555
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: DUPLICATE 1
Field Blank /Rinse Water type:

Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED DLB

Casing Inside Diameter: ~~1.5~~ 2 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 30.17 feet
Volume of Water in Well: 2.76 gallons
Max Well Volumes to Purge: 5
Max ~~Min~~. Volume to be Purged: 13.84 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 42.02 ft TOC
Depth to Water: ~~5.34~~ ft TOC 11.85
Column of Water in Well: 30.17 ft
Depth to Water after Purge: 13.20 ft TOC

Appearance of Sample: clear, no odor, no sheen, slight effervescence

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	7	8	9	10
Time:	14:50	14:54	14:59	15:04	15:09	15:14	15:24	15:24	15:34	15:39
Volume Removed (liters):	0.22	0.66	1.21	1.76	2.31	2.81	3.31	3.81	4.31	4.81
pH: (0.1)	~~12.53~~ 7.26	7.26	7.26	7.22	7.21	7.20	7.20	7.21	7.21	7.20
Specific Conductance (uS/cm): (± 3%)	0.709	0.710	0.714	0.729	0.734	0.736	0.736	0.736	0.738	0.74
Temperature (Degrees C): (± 10%)	12.53	13.16	13.74	14.34	14.53	14.62	14.61	14.60	14.48	14.56
~~Turbidity (NTU)~~: water level	13.11	13.11	13.12	13.16	13.16	13.17	13.17	13.18	13.19	13.19
~~Eh (millivolts)~~: (± 10) ORP	-107.9	-107.1	-90.4	-115.5	-129.3	-131.2	-127.1	-160.3	-161.0	-158.2
DO (mg/l): (± 10% 0.1<1)	2.24	1.62	0.80	0.79	0.77	0.38	0.36	0.35	0.29	0.29

Starting Purge Time: 14:48
Ending Purge Time: 15:39
Average Purge Rate: 100 ml/min
Total Volume Purged: 4.81 liters

SAMPLE CONTAINERS REQUIRED

	Analysis	Container Number, Type and Size	Filter	Preservative and Source
MW-47D	Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
	otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar 250 ML	NA	None
Duplicate 1	8260B	(3) 40 ml vials	NA	HCL
	TEH	(1) 250 ml amber jar	NA	none

Chain of Custody #: 12112-2
Shuttle ID:
Trip Blank ID: Trip Blank (12/10/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

* Dup 1 collected for VOC's and TEH
* Water collected in VOC samples (MW-47D and Duplicate 1) passed through peristaltic pump

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 35°F
Wind: 15 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-48
Date: 12/11/12
Time at Well Site: 14:25 12/11/12
Time of Sample Collection: 13:35 12/13/12
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:

Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED DLB

Casing Inside Diameter: ~~2~~ 1.5 inches
Casing Volume: ~~0.163~~ gal/ft 0.0918
Column of Water in Well: 8.16 feet
Volume of Water in Well: ~~1.33~~ gallons 0.749
Max Well Volumes to Purge: 5
Max ~~Min~~ Volume to be Purged: ~~6.65~~ gallons 3.745
Method of Purging: Peristaltic
Well Purged Dry?: (Yes) No

screen interval: 15-20'

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 19.72 ft TOC
Depth to Water : 11.56 ft TOC
Column of Water in Well: 8.16 ft
Depth to Water after Purge: DRY ft TOC

Appearance of Sample: clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1 (14:42)	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	7	8	9
Time:	~~15:42~~	14:47	14:52	14:57	15:02	15:07	15:12	15:17	15:22
Volume Removed (liters):	~~1~~ 0.4	0.65	0.80	1.05	1.30	1.55	1.80	2.55	3.80
pH:	7.28	7.22	7.18	7.27	7.16	7.22	7.23	7.27	7.27
Specific Conductance (uS/cm):	0.646	0.633	0.605	0.587	0.584	0.574	0.566	0.578	0.640
Temperature (Degrees C):	11.42	9.07	7.93	7.26	7.16	6.15	6.61	7.60	11.15
DTW ~~Turbidity (NTU)~~:	13.41	14.18	14.99	15.27	15.33	15.72	16.18	17.29	19.34
ORP ~~Eh (millivolts)~~:	-13.9	-11.2	-6.1	-3.0	-0.9	1.9	4.2	4.3	5.2
DO (mg/l) :	3.53	1.14	0.81	0.73	0.72	0.78	1.11	1.57	1.53

Starting Purge Time: 14:37
Ending Purge Time: 15:22

Average Purge Rate: 50 ml/min
Total Volume Purged: 3.80 liters

*well dry at 15:25

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar 250 mL	NA	None

Chain of Custody #: 121312-2
Shuttle ID:
Trip Blank ID: Trip Blank (12/13/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

*purge rate increased to approximately 125 ml/min due to low amount of water in well at 15:14 on 12/11/12

*no sheen in purge water, 12/11/12

*see reverse →

- MW-48 sampled for VOCs, TEH on 12/13/12 at 1335
  - DTW = 18.72'
  - well nearly dry upon completion of sampling

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 35°F
Wind: 15 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-49
Date: 12/11/12
Time at Well Site: 16:05 12/11/12
Time of Sample Collection: 14:20 12/13/12
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 7.02 feet
Volume of Water in Well: 1.14 gallons
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 5.72 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: (Yes) No

Screen interval: 12-17'

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.03 ft TOC
Depth to Water : 10.05 ft TOC
Column of Water in Well: 7.02 ft
Depth to Water after Purge: DRY ft TOC

Appearance of Sample: clear, no sheen, no odor

* No ORP recorded for purge 1 * Purge 2 ORP: 0.731 ms/cm

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	16:15	16:20	16:25	16:28		
Volume Removed (liters):	0.4	2.4	4.4	4.8		
M pH:	7.26	7.31	7.29	7.30		
Specific Conductance (~~µ~~S/cm):	~~0.947~~	0.947	0.722	0.701		
Temperature (Degrees C):	11.75	12.63	12.33	11.27		
DTW ~~Turbidity (NTU)~~:	12.51	14.59	16.83	DRY		
ORP ~~Eh (millivolts)~~:	19.1	27.6	29.5	22.8		
DO (mg/l) :	3.30	2.98	3.25	4.21		

Starting Purge Time: DLB ~~16:13~~ 16:13
Ending Purge Time: 16:28
Average Purge Rate: 200 ml/min
Total Volume Purged: 4.8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar	NA	None
	250 ml		

Chain of Custody #: 12/13/12-2
Shuttle ID:
Trip Blank ID: Trip Blank (12/13/12)
Lab Name: Test Am.
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

* MW-48 sampled for VOC's and TEH at 14:20 on 12/13/12
- DTW = 15.76' TOC - well ran dry at completion of sampling

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 45° F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-5D
Date: 12/13/12
Time at Well Site: 1130
Time of Sample Collection: 12/14/12 @ 0854
Sampled by: ~~RJ~~ DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 6.34 feet
Volume of Water in Well: ~.6 gallons
Well Volumes to Purge: –
Min. Volume to be Purged: – gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.54 ft TOC
Depth to Water : 5.20 ft TOC
Column of Water in Well: 6.34 ft
Depth to Water after Purge: 11.54 ft TOC

Appearance of Sample: clear, no sheen, no order

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1145	1150	1155			
Volume Removed (liters):	1.5	2.25	3			
pH:	6.97	6.93	6.91			
Specific Conductance (uS/cm):	1.062	1.010	1.004			
Temperature (Degrees C):	12.30	12.37	12.54			
WL ~~Turbidity~~ (NTU):	8.50	9.83				
Eh (~~millivolts~~):						
DO (mg/l) :	1.15	1.13	0.93			

Starting Purge Time: 1135
Ending Purge Time: 1155
Average Purge Rate: 150 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3x (3) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1x 250 (1) 1L Amber jar	NA	None

Chain of Custody #: 121412-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

12/14/12 @ 0840 - DTW - 10.27' TOC

GWL - 12/13/12 @ 1602 - 11.75 FT BTOC

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40°F
Wind: 20 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-51
Date: 12/12/12
Time at Well Site: 14:40
Time of Sample Collection: 15:45
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.918 gal/ft
Column of Water in Well: 8.74 feet
Volume of Water in Well: 0.80 gallons
Max Well Volumes to Purge: 5
Max ~~Min~~. Volume to be Purged: 4.01 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 13.38 ft TOC
Depth to Water : 4.64 ft TOC
Column of Water in Well: 8.74 ft
Depth to Water after Purge: 9.17 ft TOC

screen interval: 2-12' TOC

Appearance of Sample: some turbidity/sediment, no odor, no sheen

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	
Time:	15:03	15:08	15:12	15:17	15:22	15:27	15:32
Volume Removed (liters):	~~0.7~~ 1.2	1.7	2.2	2.7	3.2	3.7	4.2
pH:	6.91	6.92	6.91	6.89	6.88	6.89	6.89
Specific Conductance (µS/cm):	0.732	0.726	0.709	0.703	0.704	0.706	0.704
Temperature (Degrees C):	11.28	10.85	10.35	10.21	10.18	9.99	10.06
DTW ~~Turbidity (NTU)~~:	6.40	7.04	7.70	7.97	8.52	8.93	9.17
ORP ~~Eh (millivolts)~~:	29.5	38.7	38.0	36.1	-5.9	-11.0	-11.5
DO (mg/l) :	1.99	1.55	1.40	1.26	0.98	0.99	0.91

Starting Purge Time: 14:49
Ending Purge Time: 15:32
Average Purge Rate: 100 ml/min
Total Volume Purged: 4.2 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar 250 mL	NA	None
VPH	(3) 40 mL vials	NA	HCL
EPH	(2) 1L amber jars	NA	HCL

Chain of Custody #: 121212-2
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40 °F
Wind: 15 mph
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-52 and Duplicate 6
Date: 12/11/12 DRM 4/25/13
Time at Well Site: 1200
Time of Sample Collection: 13:15
Sampled by: DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: Duplicate 6
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 7.02 feet
Volume of Water in Well: 0.64 gallons
Max Well Volumes to Purge: 5
Max ~~Min.~~ Volume to be Purged: 3.22 gallons
Method of Purging: peristaltic pump
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.02 ft TOC
Depth to Water : 5.00 ft TOC
Column of Water in Well: 7.02 ft
Depth to Water after Purge: 6.77 ft TOC

screen: 2 - 12'

Appearance of Sample: slight sheen, petroleum odor, slightly turbid

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	7	8	9	10
Time:	12:13	12:18	12:22	12:27	12:33	12:38	12:43	12:48	12:53	13:00
Volume Removed (liters):	0.6	1.1	1.6	2.1	2.7	3.2	3.7	4.2	4.7	5.4
pH:	6.95	6.86	6.84	6.82	6.83	6.82	6.83	6.83	6.83	6.83
Specific Conductance (µS/cm):	0.970	0.940	0.924	0.921	0.924	0.929	0.930	0.932	0.935	0.938
Temperature (Degrees C):	12.53	11.97	11.86	11.71	12.06	11.88	12.07	11.95	12.10	12.18
DTW ~~Turbidity (NTU)~~:	5.94	6.04	6.22	6.31	6.52	6.59	6.68	6.70	6.74	6.77
ORP ~~Eh (millivolts)~~:	55.2	57.9	40.9	0.9	-24.7	-37.9	-44.1	-54.2	-57.6	-62.
DO (mg/l) :	2.40	0.92	0.78	0.64	0.54	0.50	0.47	0.43	0.41	0.38

Starting Purge Time: 12:10
Ending Purge Time: 13:00
Average Purge Rate: 100 ml/min
Total Volume Purged: 5.4 liters

SAMPLE CONTAINERS REQUIRED

MW-52

Analysis	Container Number, Type and Size	Filter	Preservative and Source
VPH/ Volatiles (8260B)	6 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar 250 ml	NA	None
EPH	(2) 1 L amber jars	NA	HCL
VPH/ 8260 B	(6) 40 ml vials	NA	HCl
EPH	(2) 1 L amber jars	NA	HCL

Chain of Custody #: 12/212-2
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

* Duplicate 6 collected for EPH, VPH and VOCs

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 45°F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-53
Date: 12/13/12
Time at Well Site: 1210
Time of Sample Collection: 12/14/12 @ 0330
Sampled by: ~~KBB~~ DLB
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 5.93 feet
Volume of Water in Well: ~.55 gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: ~~Yes~~ No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.54 ft TOC
Depth to Water : 5.61 ft TOC
Column of Water in Well: 5.93 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear, no sheen, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1229	1234				
Volume Removed (liters):	2	3				
pH:	7.17	7.09				
Specific Conductance (uS/cm):	1.296	1.255				
Temperature (Degrees C):	12.94	12.91				
~~Turbidity~~ (NTU):	10.00	11.23				
~~Eh (millivolts)~~:						
DO (mg/l) :	6.20	4.39				

Starting Purge Time: 1219
Ending Purge Time: 1234
Average Purge Rate: 200 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3x (~~2~~) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1x 250ml (~~1 liter~~) Amber jar	NA	None

Chain of Custody #: 121412-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GWL - 12/13/12 @ 1657 - 11.00 FT BTOC
12/14/12 @ 0315 - DTW = 10.77' TOC

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 35°F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-54
Date: 12/12/12
Time at Well Site: 1120
Time of Sample Collection: 1200
Sampled by: PJT
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 10.50 feet
Volume of Water in Well: 0.9639 gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 29 ft TOC
Depth to Water : 18.50 ft TOC
Column of Water in Well: 10.50 ft
Depth to Water after Purge: 25.11 ft TOC

Appearance of Sample: CLEAR, COLORLESS

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1139	1144	1149	1154	1159	
Volume Removed (liters):	1	1.5	2	2.5	3	
pH:	7.15	7.16	7.16	7.13	7.16	
Specific Conductance (uS/cm):	1.375	1.322	1.271	1.230	1.205	
Temperature (Degrees C):	14.49	14.48	14.49	14.30	14.44	
WL ~~Turbidity (NTU)~~:	21.20	22.25	23.34	24.31	25.11	
Eh (millivolts):	—	—	—	—	—	
DO (mg/l) :	0.61	0.55	0.61	0.50	0.52	

Starting Purge Time: 1129
Ending Purge Time: 1159
Average Purge Rate: 100 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (~~6~~) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1x 250ml (~~1 liter~~) Amber jar	NA	None

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 25°F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-55S
Date: 12/12/12
Time at Well Site: 0853
Time of Sample Collection: 0950
Sampled by: ~~[illegible]~~ BJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0913 gal/ft
Column of Water in Well: 6.70 feet
Volume of Water in Well: [illegible] gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 13.0 ft TOC
Depth to Water : 6.20 ft TOC
Column of Water in Well: 6.80 ft
Depth to Water after Purge: 10.71 ft TOC

Appearance of Sample:

WELL PURGE CONTROL

	Purge 1 (918)	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	~~Sa~~ SAMPLE PURGE 7
Time:	0921	0924	0927	0930	0935	0940	0945
Volume Removed (liters):	.45	.75	1.05	1.35	1.85	2.35	2.85
pH:	7.17	7.17	7.13	7.13	7.10	7.10	7.10
Specific Conductance (uS/cm):	0.740	0.754	0.739	0.721	0.700	0.699	0.699
Temperature (Degrees C):	12.32	13.10	12.49	11.59	10.88	10.82	10.71
WL ~~Turbidity (NTU)~~:	8.10	8.72	9.05	9.45	10.03	10.51	11.02
Eh (millivolts):	—	—	—	—	—		
DO (mg/l) :	4.37	4.30	3.68	3.18	2.71	2.64	2.59

Starting Purge Time: 0918
Ending Purge Time: 0945
Average Purge Rate: 100 ml/min
Total Volume Purged: 2.85 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	(1) ~~Liter~~ Amber jar	NA	None
	250ml		

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30°F
Wind: GUSTY
Precipitation: NONE

SAMPLE DESCRIPTION

Sample ID: MW-55D and Duplicate 5
Date: 12/12/12
Time at Well Site: 1010
Time of Sample Collection: 1050
Sampled by: PJJ
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

DWM 4/25/13

FIELD BLANK NOTES

Field Blank Name: DUPLICATE 5
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 4.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 16.89 feet
Volume of Water in Well: gallons
Well Volumes to Purge: —
Min. Volume to be Purged: — gallons
Method of Purging: PERISTALTIC
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 29 ft TOC
Depth to Water : 12.11 ft TOC
Column of Water in Well: 16.89 ft
Depth to Water after Purge: 20.51 ft TOC

Appearance of Sample: CLEAR, COLORLESS

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1027	1032	1037	1042	1045	1048
Volume Removed (liters):	1.00	1.5	2.0	2.5	2.8	3.1
pH:	7.04	7.04	7.05	7.06	7.06	7.07
Specific Conductance (uS/cm):	0.976	0.976	0.973	0.965	0.963	0.962
Temperature (Degrees C):	12.62	12.62	12.69	12.46	12.54	12.56
WL Turbidity (NTU):	16.20	17.35	18.20	19.40	20.02	20.51
Eh (millivolts):						
DO (mg/l) :	1.07	1.00	0.93	0.84	0.80	0.77

Starting Purge Time: 1017
Ending Purge Time: 1048
Average Purge Rate: 100 ml/min
Total Volume Purged: 3.1 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (@) 40 ml vials	NA	HCL
otal Extractable Hydrocarbons	1x 250mL ~~Water~~ Amber jar	NA	None

Chain of Custody #: 121212-1
Shuttle ID:
Trip Blank ID:
Lab Name: Test America
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

– TOTAL VOC DUPLICATE 5

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30's
Wind: —
Precipitation: —

SAMPLE DESCRIPTION

Sample ID: MW-43D
Date: 3/27
Time at Well Site: 9:50
Time of Sample Collection: 10:45
Sampled by: ASK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name: /
Field Blank /Rinse Water type: /
Lot Number: /
Analyses: /

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 30 feet
Volume of Water in Well: ~5 gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 40.75 ft TOC
Depth to Water: 10.21 ft TOC
Column of Water in Well: 30 ft
Depth to Water after Purge: 15.51 ft TOC

Appearance of Sample: Slightly turbid, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	10:05	10:12	10:20	10:32	10:40	
Volume Removed (liters):	2	4	6	8	9	
pH:	7.11	7.09	7.09	7.08	7.09	
Specific Conductance (uS/cm):	0.791	0.793	0.793	0.792	0.790	
Temperature (Degrees C):	10.94	11.05	10.14	10.00	10.20	
DTW Turbidity (NTU):	12.29	14.02	14.61	15.04	15.51	
ORP Eh (millivolts):	20.3	43.3	49.5	51.9	61.7	
DO (mg/l):	1.91	1.90	1.94	1.93	1.77	

Starting Purge Time: 9:55
Ending Purge Time: 10:40
Average Purge Rate: ~150 ml/min
Total Volume Purged: 9 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	1 250 mL (1) Liter Amber jar	NA	None
Dup-01	3 VOC vials	—	HCL

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-46
Date: 3/27
Time at Well Site: 8:30
Time of Sample Collection: 9:25
Sampled by: AJP
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 20s Sunny
Wind: —
Precipitation: —

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 41.17 ft TOC
Depth to Water : 10.51 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Few suspended particulates (whitish), no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	8:40	8:50	8:55	9:05	9:15	9:22
Volume Removed (liters):	1	3	4	5	7	8
pH:	7.94	7.10	7.03	7.04	7.04	7.04
Specific Conductance (uS/cm):	0.526	0.635	0.757	0.775	0.772	0.771
Temperature (Degrees C):	10.02	11.19	10.88	10.77	10.89	10.97
~~Turbidity (NTU)~~ DO (mg/l):	1095	11.56	11.57	11.67	11.77	11.79
~~Eh (millivolts)~~ ORP:	51.2	-45.5	-67.6	-55.4	-50.2	-36.0
DO (mg/l) :	2.95	1.10	1.24	0.56	0.50	0.49

Starting Purge Time: 8:35
Ending Purge Time: 9:25
Average Purge Rate: 200 ml/min
Total Volume Purged: ~8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 20's
Wind: —
Precipitation: —

SAMPLE DESCRIPTION

Sample ID: MW-47D
Date: 3/27/13
Time at Well Site: 7:35
Time of Sample Collection: 8:00
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 31 feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 42.02 ft TOC
Depth to Water : 10.86 ft TOC
Column of Water in Well: 31 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	7:40	7:50	7:55	8:00		
Volume Removed (liters):	1	2	3	4		
pH:	7.16	7.10	7.13	7.11		
Specific Conductance (uS/cm):	0.963	0.977	0.983	0.982		
Temperature (Degrees C):	12.47	12.20	12.46	12.60		
DTW Turbidity (NTU):	10.86	10.87	10.90	10.88		
ORP Eh (millivolts):	4.3	-25.4	-32.8	-19.5		
DO (mg/l) :	0.48	0.53	0.51	0.45		

Starting Purge Time: 7:35
Ending Purge Time: 8:00
Average Purge Rate: 200 ml/min
Total Volume Purged: ~4 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30's sunny
Wind: light
Precipitation:

SAMPLE DESCRIPTION

Sample ID: MW-56D
Date: 3/26/13
Time at Well Site: 13:45
Time of Sample Collection: 15:00
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 26.85 feet
Volume of Water in Well: 4.37 gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging: Peristaltic
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 39.75 ft TOC
Depth to Water: 12.90 ft TOC
Column of Water in Well: 26.85 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	
Time:	14:20	14:18	14:23	14:34	14:49	14:53	15:00
Volume Removed (liters):	0	4	5	6	7	8	
pH:	7.92	7.92	7.90	7.91	7.91	7.92	7.91
Specific Conductance (uS/cm):	0.683	0.684	0.684	0.684	0.684	0.685	0.685
Temperature (Degrees C):	9.10	9.57	9.53	9.39	9.39	9.38	9.49
DTW ~~Turbidity~~ (NTU):	17.05	17.54	18.53	19.98	21.65	22.28	22.63
ORP ~~Eh~~ (millivolts):	240.9	88.3	73.6	44.6	26.6	18.2	26.1
DO (mg/l):	1.80	0.75	0.68	0.55	0.68	0.66	0.64

Starting Purge Time: 13:55
Ending Purge Time: 15:00
Average Purge Rate: ~~90~~ 125 ml/min
Total Volume Purged: 8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 ~~(2)~~ 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-565
Date: 3/26
Time at Well Site: 10:45
Time of Sample Collection: 12:20
Sampled by: ASK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 30
Wind: Light
Precipitation: Sunny N/A

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: .163 gal/ft
Column of Water in Well: 11.28 feet
Volume of Water in Well: ~1.8 gallons
Well Volumes to Purge: 3
Min. Volume to be Purged: 5.4 gallons
Method of Purging: peristaltic
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.64 ft TOC
Depth to Water : 6.36 ft TOC
Column of Water in Well: 11.28 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Slightly cloudy, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6		
Time:	11:00	11:10	11:23	11:37	11:50	12:05	12:10	12:15
Volume Removed (liters):	0	1.5	~3.5	5	8	9	10	11
pH:	8.23	7.25	6.13	7.23	7.25	7.18	7.17	7.17
Specific Conductance (uS/cm):	.828	0.842	0.808	0.793	0.785	0.721	0.685	0.671
Temperature (Degrees C):	6.80	5.52	5.53	5.04	6.02	5.99	6.03	6.07
DTW ~~Turbidity (NTU)~~:	7.43	8.05	8.80	9.24	10.22	11.33	11.68	11.92
ORP ~~Eh~~(millivolts):	217.8	222.3	137.0	112.3	134.1	122.3	114.9	110.1
DO (mg/l) :	7.55	6.39	6.15	6.47	5.81	6.45	6.34	6.29

Starting Purge Time: 10:55
Ending Purge Time: 12:20
Average Purge Rate: 150 ml/min
Total Volume Purged: 11 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 30 s
Wind: light
Precipitation: ✓

SAMPLE DESCRIPTION

Sample ID: MW-57
Date: 3/27/13
Time at Well Site: 12:00
Time of Sample Collection: 12:45
Sampled by: MK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes (No)

Pumped water covering j plug at first

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 35.4 ft TOC
Depth to Water: 9.95 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: slightly turbid, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	12:10	12:20	12:30	12:35	12:40	12:45
Volume Removed (liters):	1	2.5	4	5	6	7
pH:	7.25	7.12	7.13	7.11	7.10	7.10
Specific Conductance (uS/cm):	0.840	0.827	0.825	0.822	0.820	0.819
Temperature (Degrees C):	12.01	11.66	11.78	11.85	11.91	11.95
NTU ~~Turbidity (NTU)~~:	10.59	10.76	10.92	10.98	11.04	11.08
ORP ~~Eh~~ (millivolts):	226.8	53.8	57.5	45.3	29	21.0
DO (mg/l):	2.26	0.51	0.48	0.39	0.36	0.34

Starting Purge Time: 12:05
Ending Purge Time: 12:45
Average Purge Rate: 150 ml/min
Total Volume Purged: 7-8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-5C
Date: 3/27
Time at Well Site: 14:00
Time of Sample Collection: 15:20
Sampled by: ASK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 40
Wind: —
Precipitation: —

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: ____ feet
Volume of Water in Well: ____ gallons
Well Volumes to Purge:
Min. Volume to be Purged: ____ gallons
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 38.3 ft TOC
Depth to Water : 11.15 ft TOC
Column of Water in Well: 27 ft
Depth to Water after Purge: ____ ft TOC

Appearance of Sample: clear, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6		
Time:	14:15	14:25	14:35	14:45	14:55	15:05	15:15	15:20
Volume Removed (liters):	1	3	4.5	6	7	9	10	12
pH:	7.79	7.70	7.54	7.33	7.27	7.21	7.20	7.19
Specific Conductance (uS/cm):	0.539	0.540	0.588	0.629	0.649	0.660	0.670	0.673
Temperature (Degrees C):	11.68	11.43	11.65	11.89	11.95	11.98	12.01	12.06
DTW ~~Turbidity (NTU)~~:	12.24	13.46	14.12	14.55	14.80	15.05	15.11	15.20
ORP ~~Eh~~ (millivolts):	210	135	106	71.0	50.6	36.8	31.3	29.3
DO (mg/l) :	4.17	3.37	1.94	1.25	1.04	0.87	0.75	0.71

Starting Purge Time: 14:10
Ending Purge Time: 15:20
Average Purge Rate: 150 ml/min
Total Volume Purged: 12 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40's
Wind: —
Precipitation: —

SAMPLE DESCRIPTION

Sample ID: MW-59
Date: 3/27/13
Time at Well Site: 15:40
Time of Sample Collection: 16:25
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 39.95 ft TOC
Depth to Water : 13.76 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	15:55	16:00	16:10	16:15	16:20	16:25
Volume Removed (liters):	1	2	3	4	5	6
pH:	7.22	7.22	7.19	7.16	7.15	7.15
Specific Conductance (uS/cm):	0.897	0.893	0.892	0.890	0.889	0.888
Temperature (Degrees C):	11.26	10.94	10.85	10.85	10.81	10.83
DTW ~~Turbidity (NTU)~~:	15.01	15.16	15.26	15.27	15.27	15.28
ORP ~~Eh~~ (millivolts):	13.8	14.8	24.7	9.4	-0.3	2.4
DO (mg/l) :	0.96	0.87	0.69	0.60	0.59	.50

Starting Purge Time: 15:50
Ending Purge Time: 16:25
Average Purge Rate: 125 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40
Wind: light
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-60
Date: 3/26/13
Time at Well Site: 15:25
Time of Sample Collection: 16:05
Sampled by: AJK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 10.1 feet
Volume of Water in Well: 1.7 gallons
Well Volumes to Purge: 3
Min. Volume to be Purged: 5 gallons
Method of Purging: peristaltic
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 22.12 ft TOC
Depth to Water : 11.98 ft TOC
Column of Water in Well: 10.14 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	15:30	15:33	15:38	16:05		
Volume Removed (liters):	1	4	5	7		
pH:	7.38	7.22	7.23	7.22		
Specific Conductance (uS/cm):	0.78	0.796	0.810	0.809		
Temperature (Degrees C):	9.35	9.08	8.73	8.75		
DTW Turbidity (NTU):	13.35	12.75	18.12	18.35		
ORP Eh (millivolts):	121.2	105.8	105.4	105.5		
DO (mg/l) :	6.32	4.85	4.86	4.75		

Starting Purge Time: 15:25
Ending Purge Time: 16:05
Average Purge Rate: 150 ml/min
Total Volume Purged: 7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None
Dup-02	1 L Amber - TEH	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40's
Wind: —
Precipitation: —

SAMPLE DESCRIPTION

Sample ID: MW-61
Date:
Time at Well Site: 16:40
Time of Sample Collection: 17:15
Sampled by: MK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 38.38 ft TOC
Depth to Water : 7.62 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Clear, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	16:55	17:00	17:10	17:15		
Volume Removed (liters):	1	3	5	6		
pH:	7.86	7.84	7.83	7.83		
Specific Conductance (uS/cm):	0.559	0.550	0.548	0.547		
Temperature (Degrees C):	12.03	11.29	11.27	11.33		
DTW ~~Turbidity (NTU)~~:	4.61	10.74	11.96	12.72		
ORP Eh (millivolts):	-25	-38.0	-32.7	-43.6		
DO (mg/l) :	1.82	0.76	0.72	0.66		

Starting Purge Time: 16:50
Ending Purge Time: 17:15
Average Purge Rate: ~150 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70 s
Wind: breezy
Precipitation: sunny

SAMPLE DESCRIPTION

Sample ID: MW-15
Date: 10/8/13
Time at Well Site: 1430
Time of Sample Collection: 1430 on 10/10/13
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.67 ft TOC
Depth to Water: 6.30 ft TOC 6.49 ft on 10/10 at 1425
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water, sampled all but MEE on 10/10. MEE collected at 1115 on 10/11/13.

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1445	1450	1451			
Volume Removed (liters):	2	3				
pH:	6.67					
Specific Conductance (uS/cm):	0.757	0.757				
Temperature (Degrees C):	19.20	18.97				
Turbidity (NTU):	101					
ORP ~~Eh~~ (millivolts):	-13.9	-63.4				
DO (mg/l):	0.46	0.43				
DTW	11.25	12.55	dry			

Starting Purge Time: 1435
Ending Purge Time: 1451
Average Purge Rate: 150 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	NA	None
N, S			
TOC			
Fe, Mn			
MEE			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft 1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 60's
Wind: light
Precipitation: sunny

SAMPLE DESCRIPTION

Sample ID: MW-19
Date: 10/10/13
Time at Well Site: 800
Time of Sample Collection: 7:30 on 10/11/13
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging: Peristaltic
Well Purged Dry?: Yes (circled) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.90 ft TOC
Depth to Water : 6.78 ft TOC 9.08 on 10/11/13 @ 713
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: VOCs - clear water, other samples slightly turbid, picked up material from bottom of well. Bottles ~½ full. (except VOC vials)

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	610	620	625	630	632	
Volume Removed (liters):	1	2	2.5	3	3.5	
pH:	7.31	7.42	7.45	7.48		
Specific Conductance (uS/cm):	0.748	0.760	0.742	0.734		
Temperature (Degrees C):	17.40	16.95	17.55	16.72		
Turbidity (NTU):	44.8	248	NM			
ORP Eh (millivolts):	-74.4	-63.7	-48.4	-44.0		
DO (mg/l) :	0.71 9.83	0.94 8.20	1.74 9.60	1.66 10.6	Dry	

Starting Purge Time: 605
Ending Purge Time: 632
Average Purge Rate: 100 ml/min
Total Volume Purged: 3.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	6 ~~(2)~~ 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~
TOC			
Fe/Mn			
N, S			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70
Wind: windy
Precipitation: sunny

SAMPLE DESCRIPTION

Sample ID: MW-24
Date: 10/8/13
Time at Well Site: 1700
Time of Sample Collection: 1500 on 10/10/13
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.65 ft TOC
Depth to Water: 6.02 ft TOC 16.15 on 10/10 @ 1445
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water, sampled only VOCs on 10/10/13 not enough water for others. 10/11/13 sampled MEE, N/S @ 1215

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1710	1715	1720	1725	1730	1735
Volume Removed (liters):	1	1.5	2	3	4	4.5
pH:	6.97	6.88	6.80	6.93	6.93	6.96
Specific Conductance (µS/cm):	1.018	1.009	0.997	0.990	0.987	0.973
Temperature (Degrees C):	20.20	20.84	21.12	21.04	21.12	20.91
Turbidity (NTU):	3.41	1.66	2.09	2.75	10.2	12.7
ORP (millivolts):	-34.0	-20.2	-21.9	-22.9	-22.4	-20.6
DO (mg/l):	0.53	1.49	1.57	0.47	0.44	0.53
DTW	7.55	9.43	12.09	13.71	15.01	16.75

1740 Dry

Starting Purge Time: 1705
Ending Purge Time: 1740
Average Purge Rate: 150 ml/min
Total Volume Purged: 5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~
NO3			
Fe, Mn			
TOC			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70s
Wind: breezy
Precipitation: sunny

SAMPLE DESCRIPTION

Sample ID: MW-25S
Date: 10/8/13 – 10/10/13
Time at Well Site: 1600
Time of Sample Collection: 1530 on 10/10/13
Sampled by: AJK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 18.44 ft TOC
Depth to Water: 6.10 ft TOC 16.84 on 10/10 @ 15:15
Column of Water in Well: 12.34 ft
Depth to Water after Purge: 18.4 ft TOC 17.01 950, 10/11

Appearance of Sample: Slight odor (ammonia) during purging, water slightly bubbley, Same during Sampling.

Sampled VOCs only on 10/10/13
Sampled Nitrate, Sulfate, MEE on 10/11/13 at 1000.

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1615	1620	1625	1630	1635	1637
Volume Removed (liters):	2	3	4	5	6	
pH:	6.67	6.76	6.91	6.95	6.93	
Specific Conductance (uS/cm):	1.930	1.932	1.850	1.789	1.809	
Temperature (Degrees C):	20.87	21.84	22.10	22.06	21.79	
Turbidity (NTU):	5.6	5.37	–	12.5	NM	
ORP (millivolts):	-109.1	-89	-111.8	-109.5	-110.1	
DO (mg/l):	0.16	0.17	0.20	0.21	0.29	
DTW	9.10	12.74	15.62	NM	18.3	dry

Starting Purge Time: 1605
Ending Purge Time: 1637
Average Purge Rate: 150 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	6 (2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70s
Wind: light
Precipitation: sunny

SAMPLE DESCRIPTION

Sample ID: MW-25D
Date: 10/9/13
Time at Well Site: 1250
Time of Sample Collection: 1335
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 21.12 feet
Volume of Water in Well: ~2.1 gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging: peristaltic
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 28.7 ft TOC
Depth to Water: 7.58 ft TOC
Column of Water in Well: 21.12 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1305	1315	1320	1327		
Volume Removed (liters):	1	3	4	6		
pH:	6.85	6.83	6.90	6.97		
Specific Conductance (uS/cm):	0.901	0.896	0.894	0.892		
Temperature (Degrees C):	19.83	19.64	19.63	19.69		
Turbidity (NTU):	8.10	12.0	12.2	12.4		
ORP ~~Eh~~ (millivolts):	-44.2	-32.10	-31.1	-32.4		
DO (mg/l):	0.25	0.19	0.18	0.18		
DTW	11.10	14.35	17.30	20.35		

Starting Purge Time: 1253
Ending Purge Time: 1330
Average Purge Rate: 160 ml/min
Total Volume Purged: 7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	(1) ~~Liter Amber~~ jar	NA	None
Nitrate, Nitrite	Sulfate		
TOC			
Fe, Mn			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: Sunny, 70°F
Wind:
Precipitation:

SAMPLE DESCRIPTION

Sample ID: ATK 2646 MW-265
Date: 10/9/13
Time at Well Site: 1155
Time of Sample Collection: 900 on 10/11/13
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 15.6 ft TOC
Depth to Water: 6.88 ft TOC 14.60 @ 835 on 10/11/13
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water, only enough water for VOCs

10/11/13 Sampled For MEE

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1205	1212	1220	1225		
Volume Removed (liters):	2	3	4			
pH:	7.21	7.33	7.28			
Specific Conductance (mS/cm):	0.986	0.975	0.985			
Temperature (Degrees C):	22.05	22.27	22.29			
Turbidity (NTU):	2.64	4.42	6.36			
ORP ~~Eh~~ (millivolts):	-32.8	-42.4	-43.0			
DO (mg/l):	0.52	0.39	0.61			
DTW	9.82	12.01	13.98	Dry		

Starting Purge Time: 1200
Ending Purge Time: 1225
Average Purge Rate: 150 ml/min
Total Volume Purged: liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	(1) ~~Liter Amber jar~~	NA	None
MEE			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 60s
Wind: light
Precipitation: sunny

SAMPLE DESCRIPTION

Sample ID: MW-260
Date: 10/9/13
Time at Well Site: 1045
Time of Sample Collection: 820 on 10/11/13 and 1130
Sampled by: AJK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.0918 gal/ft
Column of Water in Well: 16.4 feet
Volume of Water in Well: 1.5 gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 24.45 ft TOC
Depth to Water: 8.06 ft TOC 22.46 ft on 10/11/13 at 800
Column of Water in Well: 16.4 ft
Depth to Water after Purge: 24.3 ft TOC

Appearance of Sample: clear water, VOCs and N/S sampled at 820, MEE at 1130. ~1/4 full bottle.

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6		
Time:	1000	1105	1110	1120	1130	1135	1140	1145
Volume Removed (liters):	2	3	4	4.5	5	6	6.5	7.5
pH:	7.25	7.30	7.32	7.37	7.07	6.99	7.05	7.08
Specific Conductance (uS/cm):	0.827	0.829	0.827	0.803	0.831	0.832	0.833	0.835
Temperature (Degrees C):	20.42	20.82	20.97	21.02	19.57	19.56	19.64	19.63
Turbidity (NTU):	1.46	2.29	4.01	4.46	3.22	10.1	12.1	
ORP Eh (millivolts):	-29.6	-37.9	-39.6	-5.7	-51.6	-39.3	-45.0	-46.1
DO (mg/l):	0.38	0.24	0.24	0.48	0.74	0.42	0.34	0.57
DTW	11.82	15.42	16.35	18.78	20.91	22.19	22.90	23.86

Starting Purge Time: 1053
Ending Purge Time: 1148 (dry)
Average Purge Rate: 140 ml/min
Total Volume Purged: 8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) 1 Liter Amber jar~~	~~NA~~	~~None~~
~~NO_2, NO_3, SO_4~~			
~~Fe, Mn~~			
~~TOC~~			
MEE			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-28
Date: 10/10/13
Time at Well Site: 1050
Time of Sample Collection: 1125
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 70's, sunny
Wind: light
Precipitation: none

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.67 ft TOC
Depth to Water: 6.56 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1105	1110	1115	1120		
Volume Removed (liters):	1	2	3	3.9		
pH:	6.85	6.78	6.86	6.91		
Specific Conductance (mS/cm):	~~21.141~~ 1.53	1.54	1.541	1.537		
Temperature (Degrees C):	21.19	21.41	21.58	21.78		
Turbidity (NTU):	4.49	3.64	2.71	2.46		
ORP ~~Eh~~ (millivolts):	-78.9	-77.4	-81.5	-83.8		
DO (mg/l):	0.47	0.21	0.22	0.21		
	10.85	11.2	13.22	13.71		

Starting Purge Time: 1100
Ending Purge Time: 1125
Average Purge Rate: 100 ml/min
Total Volume Purged: 4 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	~~NA~~	~~None~~

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-29
Date: 10/10/13
Time at Well Site: 840
Time of Sample Collection: 1010
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: Sunny, 60s
Wind: light
~~Precipitation~~:

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 20.35 ft TOC
Depth to Water : 8.94 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Slightly turbid water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	850	855	901	910	950	
Volume Removed (liters):	1	1.5	2	Stopped	3	
pH:	7.16	7.14	7.36	"	7.41	
Specific Conductance (mS/cm):	1.081	1.063	0.632		0.612	
Temperature (Degrees C):	17.47	17.84	18.15		18.46	
Turbidity (NTU):	47.7			~~39.0~~	39.0	
ORP (millivolts):	-126.6	-116.6	-91.2		-64.0	
DO (mg/l) :	0.62	0.74	0.39		1.27	
	9.10	10.15	12.9	15.1	16.35	

Starting Purge Time: 842
Ending Purge Time: 1000
Average Purge Rate: 100 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber Jar~~	~~NA~~	~~None~~

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70's
Wind: breezy
Precipitation: sunny

SAMPLE DESCRIPTION

Sample ID: MW-31
Date: 10/8/13 → 10/10/13
Time at Well Site: 1300
Time of Sample Collection: 10/10/13 @ 1400
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 10.5 feet
Volume of Water in Well: ~1.7 gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging: peristaltic
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.66 ft TOC
Depth to Water: 7.19 ft TOC 16.65 on 10/10
Column of Water in Well: ft
Depth to Water after Purge: ft TOC 17.2 on 10/11 at 1120

Appearance of Sample: clear water, well went dry after filling VOC vials

Sampled MGE on 10/11 at 1120

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1515	1520	1525	1530	1540	
Volume Removed (liters):	2	3	4	5	6.7	
pH:	7.00	6.78	6.98	7.07		
Specific Conductance (µS/cm):	1.121	1.126	1.128	1.121		
Temperature (Degrees C):	18.49	19.83	20.18	20.19		
Turbidity (NTU):	2.3	3.8	4.43	—		
ORP ~~Eh~~ (millivolts):	9.1	9.6	1.8	0.4		
DO (mg/l):	0.48	0.24	0.32	0.48		
DTW	9.95	13.04	13.89	15.20	Dry	

Starting Purge Time: 1505
Ending Purge Time: 1540
Average Purge Rate: ~180 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable ~~Hydrocar~~bons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 60
Wind: light
Precipitation: Sunny

SAMPLE DESCRIPTION

Sample ID: MW-43D
Date: 10/9/13
Time at Well Site: 740
Time of Sample Collection: 830
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 40.65 ft TOC
Depth to Water: 11.42 ft TOC
Column of Water in Well: 29.23 ft
Depth to Water after Purge: 17.3 ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	750	800	820	825		
Volume Removed (liters):	1	2	5	6		
pH:	6.86	7.07	7.08	7.06		
Specific Conductance (uS/cm):	0.769	0.777	0.783	0.782		
Temperature (Degrees C):	14.94	15.29	15.21	15.07		
Turbidity (NTU):	6.40	4.41	5.86	7.49		
ORP (millivolts):	-50.2	-84.9	-76.6	-76.0		
DO (mg/l):	3.01	0.26	0.27	0.26		
DTW	12.32	14.21	16.34	17.3		

Starting Purge Time: 745
Ending Purge Time: 825
Average Purge Rate: 150 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber~~ jar	NA	None
TOC			
N, S			
Fe, Mn			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70's
Wind: light
Precipitation: sunny

SAMPLE DESCRIPTION

Sample ID: MW-46
Date: 10/9/13
Time at Well Site: 1430
Time of Sample Collection: 1525
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: gal/ft
Column of Water in Well: feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.76 ft TOC
Depth to Water : 4.00 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	
Time:	1445	1455	1500	1505	1510	1515	1520
Volume Removed (liters):	2	3.5	4	5	5.5	6	7
pH:	6.49	6.82	6.70	6.78	6.82	6.83	6.81
Specific Conductance (µS/cm):	0.532	0.607	0.670	0.691	0.713	0.717	0.719
Temperature (Degrees C):	16.36	17.20	17.20	17.36	17.32	17.18	17.20
Turbidity (NTU):	27.2	NM	15.3	10.2	9.33	10.3	11.1
ORP ~~Eh~~ (millivolts):	-112.4	-117.7	-118.9	-108.3	-101.0	-97.6	-94.5
DO (mg/l) :	0.20	0.17	0.22	0.21	0.20	0.21	0.20
DTW	13.65	13.62	13.62	13.49	13.51	13.60	13.60

Starting Purge Time: 1440
Ending Purge Time: 1525
Average Purge Rate: 140 ml/min
Total Volume Purged: ~8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	NA	None
Fe, Mn			
TOC			
N, S			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70's
Wind: 0-2 mph
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-47D
Date: 10/10/13
Time at Well Site: 1225
Time of Sample Collection: 1424
Sampled by: JWA
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 30.07 feet
Volume of Water in Well: 4.9 gallons = 18.55 L
Well Volumes to Purge: 1.5
Min. Volume to be Purged: 7.4 gallons = 28 L
Method of Purging: Low flow
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 42.02 ft TOC
Depth to Water : 11.95 ft TOC
Column of Water in Well: 30.07 ft
Depth to Water after Purge: 12.68 ft TOC

Appearance of Sample:

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	
Time:	1250	1320	1350	1412	1416	1420	1424
Volume Removed (liters):	1.6	9.5	17	25	26	27	28
pH:	6.92	6.86	7.03	7.04	7.05	7.06	7.06
Specific Conductance (uS/cm):	1.252	1.246	1.499	1.467	1.461	1.463	1.462
Temperature (Degrees C):	21.02	20.66	20.57	19.56	19.66	19.62	19.58
Turbidity (NTU):	2.60	2.17	1.32	1.21	1.11	0.39	0.46
Eh (millivolts):	-18.6	-20.2	-24.1	-25.8	-23.9	-25.0	-25.7
DO (mg/l) :	1.12	0.34	0.24	0.24	0.23	0.23	0.24
WATER LEVEL	12.34	12.52	12.63	12.72	12.72	12.72	12.72

Starting Purge Time: 1240
Ending Purge Time: 1424
Average Purge Rate: 250 ml/min
Total Volume Purged: 28 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70's
Wind: breezy
Precipitation: Sunny

SAMPLE DESCRIPTION

Sample ID: MW-53
Date: 10/9/13 - 10/10/13
Time at Well Site: 1350
Time of Sample Collection: 1300 on 10/10/13
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 5.35 feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.75 ft TOC
Depth to Water: 6.40 ft TOC 11.1 ft on 10/11/13
Column of Water in Well: 5.35 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water, only 1.5 ft of water before sampling went dry again after collecting VOCs, and MEE. Sampled N/S on 10/11/13 at 1010.

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1355	1400	1405	1407		
Volume Removed (liters):	1	2	3			
pH:	6.30	6.16	6.20			
Specific Conductance (µS/cm):	0.940	0.897	0.902			
Temperature (Degrees C):	17.19	17.74	17.26			
Turbidity (NTU):	6.07	10.3	NM			
ORP ~~Eh~~ (millivolts):	107.0	87.9	73.8			
DO (mg/l):	0.32	2.43	1.96			
DTW	8.18	9.98	11.55	Dry		

Starting Purge Time: 1350
Ending Purge Time: 1407
Average Purge Rate: 150 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials, 3 for 1,4 Dioxane	NA	HCL
~~Total Extractable Hydrocarbons~~	~~(1) Liter Amber jar~~	NA	None
~~IOC~~			
~~Se, Mn~~			
N, S			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

4

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 50°
Wind: 0-2 mph
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-6 2
Date: 10/10/13
Time at Well Site: 0745
Time of Sample Collection: 1030
Sampled by: JPJ
Sampling Method: ~~Peristaltic Pump~~ BLADDER*/POLY BAILER
Type of Sampling Equipment: ~~Poly & Silicon tubing~~

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: ~~4.37~~ gal/ft ~~16.56 L/ft~~
Column of Water in Well: 26.84 feet
Volume of Water in Well: 4.37 gallons 16.56 L/ft
Well Volumes to Purge:
Min. Volume to be Purged: 17.5 gallons
Method of Purging: ~~Low Flow~~
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 71.65 ft TOC
Depth to Water: 44.81 ft TOC
Column of Water in Well: 26.84 ft
Depth to Water after Purge: DRY ft TOC

Appearance of Sample: CLOUDY, TANNISH BROWN

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
	3.0	4.0	5.0	5.5		
Time:	0952	0757	1015	1030		
gallons Volume Removed (~~liters~~):	~~4.5~~	~~9.0~~	~~12.5~~	~~12.5~~	~~13.5~~	~~13.5~~
pH:	8.11	7.83	7.37	7.37		
Specific Conductance (uS/cm):	1.076	1.070	1.067	1.062		
Temperature (Degrees C):	13.35	12.94	12.83	12.70		
Turbidity (NTU):	>1000	>1000	>1000	>1000		
Eh (millivolts):	127	91.4	65.7	44.4		
DO (mg/l):	9.58	7.50	5.43	3.39		

Starting Purge Time: 0815/0935
Ending Purge Time: 1030
Average Purge Rate: 100 ml/min
Total Volume Purged: 5.5 ~~liters~~ gallons

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

* BLADDER PUMP STOPPED WORKING

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70's
Wind: 2-4 mph
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-03 w/ DUP-02
Date: 10/9/13
Time at Well Site: 1230
Time of Sample Collection: 1610
Sampled by: J. JANZEN
Sampling Method: ~~Peristaltic Pump~~ BLADDER PUMP
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 3.79 gal/ft = 14.35 L/ft
Column of Water in Well: 23.23 feet
Volume of Water in Well: 17.06 gallons = 64.57 L
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 71.85 ft TOC
Depth to Water: 48.62 ft TOC
Column of Water in Well: 23.23 ft
Depth to Water after Purge: ft TOC

Appearance of Sample:

WELL PURGE CONTROL

1st 15 min @ 50 ml/min

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6		
Time:	1415	1425	1445	1515	1545	1600	1605	1610
Volume Removed (liters):	1.75	2.75	4.75	7.75	10.75	12.25	12.75	13.25
pH:	7.34	7.26	7.18	7.17	7.18	7.19	7.18	7.19
Specific Conductance (uS/cm):	1.105	1.099	1.094	1.086	1.084	1.083	1.083	1.084
Temperature (Degrees C):	16.32	16.28	16.24	15.92	15.79	15.80	15.92	15.86
Turbidity (NTU):	11.6	9.44	6.44	3.79	3.13	2.68	2.17	2.55
Eh (millivolts):	212.0	202.4	190.1	177.3	164.1	150.3	157.4	156.3
DO (mg/l):	10.65*	9.88	8.67	7.70	7.39	7.44	7.39	7.46
Water Level	49.39	49.65	49.97	50.05	50.05	50.07	50.07	50.07

Starting Purge Time: 1350
Ending Purge Time: 1610
Average Purge Rate: 100 ml/min
Total Volume Purged: 13.25 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 65
Wind: Light
Precipitation: Sunny

SAMPLE DESCRIPTION

Sample ID: MW-64
Date: 10/9/13
Time at Well Site: 900
Time of Sample Collection: 950
Sampled by: ATK
Sampling Method: Peristaltic Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 22.47 feet
Volume of Water in Well: gallons
Well Volumes to Purge:
Min. Volume to be Purged: gallons
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 41.97 ft TOC
Depth to Water: 18.50 ft TOC
Column of Water in Well: 22.47 ft
Depth to Water after Purge: 21.28 ft TOC

Appearance of Sample: clear water, collected Dup-01

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	915	920	930	935	945	
Volume Removed (liters):	2	3	5	6	8	
pH:	6.60	6.34	6.45	6.49	6.53	
Specific Conductance (uS/cm):	0.857	0.853	0.856	0.854	0.859	
Temperature (Degrees C):	13.10	13.18	13.06	13.33	13.04	
Turbidity (NTU):	2.86	1.70	3.19	3.24	2.47	
~~Rdx~~ ORP (millivolts):	-38.9	-20.8	-22.5	-25.4	-27.1	
DO (mg/l):	0.63	0.35	0.34	0.31	0.29	
DTW	19.54	20.22	20.74	20.81	21.28	

Starting Purge Time: 910
Ending Purge Time: 945
Average Purge Rate: 200 ml/min
Total Volume Purged: 8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	3 (2) 40 ml vials	NA	HCL
~~Total Extractable Hydrocarbons~~	(1) ~~Liter Amber jar~~	NA	None
1,4 Dioxane	3 40		
Fe, Mn			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft
Collected Dup-01

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 60's
Wind: 0-2 mph
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-65
Date: 10/10/13
Time at Well Site: 1045
Time of Sample Collection: 1155
Sampled by: JAD
Sampling Method: ~~Peristaltic Pump~~ POLY BAILER
Type of Sampling Equipment: ~~Poly & Silicon tubing~~

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 43.59 feet
Volume of Water in Well: 7.11 gallons
Well Volumes to Purge: 3
Min. Volume to be Purged: 21.32 gallons
Method of Purging: POLY BAILER
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72.89 ft TOC
Depth to Water: 29.30 ft TOC
Column of Water in Well: 43.59 ft
Depth to Water after Purge: DRY ft TOC

Appearance of Sample:

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1100	1113	1128	1140	1149	1155
gallons Volume Removed (liters):	1.0	5.0	7.5	10.0	12.0	12.75
pH:	7.25	7.11	7.12	7.14	7.14	7.15
Specific Conductance (uS/cm):	1.265	1.284	1.287	1.288	1.299	1.288
Temperature (Degrees C):	16.97	16.59	16.66	16.69	16.38	16.27
Turbidity (NTU):	121	406	192	>1000	>1000	>1000
Eh (millivolts):	41.3	-1.8	-16.2	-28.6	-68.1	-50.1
DO (mg/l):	2.22	1.33	1.26	1.63	1.82	2.47

50.80 57.55 67.40 OFF

Starting Purge Time: 1050
Ending Purge Time: ~~1150~~ 1155
Average Purge Rate: — ml/min
Total Volume Purged: 12.75 liters gallons

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260B)	(2) 40 ml vials	NA	HCL
Total Extractable Hydrocarbons	(1) Liter Amber jar	NA	None

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-08
Date: 4/22/14
Time at Well Site: 1215
Time of Sample Collection: 4/25/14 710
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: Sunny 60
Wind: light
Precipitation: —

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.347 liters/ft
Column of Water in Well: 5 feet
Volume of Water in Well: 1.7 liters
Well Volumes to Purge: 3
Min. Volume to be Purged: 5.1 liters
Method of Purging: peristal
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 8.5 ft TOC 4/25 @ 705
Depth to Water : 3.33 ft TOC 3.25 ft
Column of Water in Well: 5 ft ft
Depth to Water after Purge: dry ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1222	1235	1240	1245	1248	12/25 705	
Volume Removed (liters):	1	4	4.5	5	~5.5		
pH:	7.53	7.60	7.56	7.51			
Specific Conductance (uS/cm):	0.723	0.697	0.696	0.703			
Temperature (Degrees C):	9.10	9.21	9.36	9.46			
Turbidity (NTU):	10.8	–	9.12	9.01			
ORP ~~Eh~~ (millivolts):	159	144.8	143.4	142.9			
DO (mg/l) :	5.03	6.58	6.21	5.87			
Water Level (ft BTOC)	4.35	7.03	7.52	8.01	Dry	3.25	

Starting Purge Time: 1220
Ending Purge Time: 1248
Average Purge Rate: ~100 ml/min
Total Volume Purged: 5.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)			
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 45, cloudy
Wind: moderate
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-15
Date: 4/23/14
Time at Well Site: 640
Time of Sample Collection: 735 on 4/25/14
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.70 ft TOC
Depth to Water : 5.18 ft TOC
Column of Water in Well: 7.5 ft
Depth to Water after Purge: dry ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	700	705	710	720	730	735	12/25 730
Volume Removed (liters):	1.5	2	2.5	3.5	4.5		
pH:	7.3	7.29	7.30	7.28	7.28		
Specific Conductance (uS/cm):	0.734	0.714	0.710	.710	0.712		
Temperature (Degrees C):	8.35	8.32	8.23	8.08	8.47	dry	
Turbidity (NTU):	8.8	10.7	24.5	116	82		
ORP ~~Eh~~ (millivolts):	224.1	215.5	210.8	204.5	201.4		
DO (mg/l) :	3.18	4.93	5.24	5.17	4.63		
Water Level (ft BTOC)	6.23	7.39	7.96	9.81	11.05		5.31 ft

Starting Purge Time: 650
Ending Purge Time: 735

Average Purge Rate: 100-150 ml/min
Total Volume Purged: liters

SAMPLE CONTAINERS REQUIRED

Analysis		Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	✓	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)		(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)				
Manganese, Iron (6010B)		Collected All		
Total Organic Carbon (5310 B-2011)				
Chloride/Sulfate (300.0)				

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-19
Date: 4/23/14
Time at Well Site: 1600
Time of Sample Collection: 905 on 4/25/14
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 45°F
Wind: windy
Precipitation: light rain

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.81 ft TOC
Depth to Water : 2.80 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: dry ft TOC

Appearance of Sample: clear water, slight turbidity

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1615	1625	1635	1640	1645	1647	900 on 4/25
Volume Removed (liters):	0.5	1.5	2.5	4	4.5		
pH:	7.57	7.46	7.43	7.42	7.42	dry	
Specific Conductance (uS/cm):	613	596	588	579	578		
Temperature (Degrees C):	8.30	8.04	8.07	8.11	8.29		
Turbidity (NTU):	62	48	42	182	124		
ORP ~~Eh~~ (millivolts):	-10.5	2.3	3.7	10.9	19		
DO (mg/l) :	4.10	3.50	3.42	4.10	2.70		
Water Level (ft BTOC)	3.65	4.81	6.76	9.65	10.50		6.46

Starting Purge Time: 1609
Ending Purge Time: 1647
Average Purge Rate: 100 ml/min
Total Volume Purged: 4.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	collected all		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 65, sunny
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-24
Date: 4/22/14
Time at Well Site: 1255
Time of Sample Collection: 1345
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder Pump~~
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging: peri
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.62 ft TOC
Depth to Water : 4.84 ft TOC
Column of Water in Well: ~12.8 ft
Depth to Water after Purge: 13.10 ft TOC

Appearance of Sample: clear water, no odor

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1300	1315	1320	1325	1335	1340	
Volume Removed (liters):		2	2.5	3	3.5	4	
pH:		7.01	7.01	7.00	7.00	6.99	
Specific Conductance (uS/cm):		0.879	0.871	0.869	0.868	0.866	
Temperature (Degrees C):		15.44	14.35	14.59	14.58	14.18	
Turbidity (NTU):		1.82	3.45	—	1.90	1.62	
ORP ~~Eh~~ (millivolts):		171.3	164.3	164.7	163.0	162.1	
DO (mg/l) :		2.77	2.82	2.60	2.69	2.83	
Water Level (ft BTOC)		8.49	9.60	—	12.01	13.10	

Starting Purge Time: 1300
Ending Purge Time: 1340
Average Purge Rate: 100 ml/min
Total Volume Purged: 4 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all sampled		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-25S
Date: 4/23/14
Time at Well Site: 1455
Time of Sample Collection: 1530
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 50, cloudy
Wind: Strong
Precipitation: earlier in day

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 18.46 ft TOC
Depth to Water : 5.26 ft TOC
Column of Water in Well: 13.2 ft
Depth to Water after Purge: 12.26 ft TOC

Appearance of Sample: slightly cloudy/bubbly water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1500	1510	1520	1525	1530		
Volume Removed (liters):	0.5	1.5	2.5	3			
pH:	7.04	7.00	7.00	7.00	Sample		
Specific Conductance (uS/cm):	1.958	1999	2.00	1.997			
Temperature (Degrees C):	11.06	10.87	11.02	10.86			
Turbidity (NTU):	–	6.14	5.4	6.6			
ORP ~~Eh~~ (millivolts):	-111.5	-115.7	-116.0	-124.6			
DO (mg/l) :	2.11	-0.21*	0.10	0.41			
Water Level (ft BTOC)	6.74	8.50	11.25	12.26			

* negative DO?

Starting Purge Time: 1500
Ending Purge Time: 1525
Average Purge Rate: 150 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all collected		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-25D
Date: 4/23/14
Time at Well Site: 1357
Time of Sample Collection: 1440
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 50, cloudy
Wind: moderate
Precipitation: none

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 24.71 ft TOC
Depth to Water : 7.74 ft TOC
Column of Water in Well: 21.00 ft
Depth to Water after Purge: 16.02 ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1410	1420	1430	1435			
Volume Removed (liters):	1	2	3	3.5			
pH:	7.32	7.28	7.25	7.25			
Specific Conductance (uS/cm):	831	832	832	832			
Temperature (Degrees C):	11.82	12.04	11.85	11.82			
Turbidity (NTU):	4.54	5.9	5.1	4.7			
ORP ~~Eh~~ (millivolts):	46.7	48.4	50.5	51.7			
DO (mg/l) :	2.18	1.67	1.84	1.78			
Water Level (ft BTOC)	10.81	13.04	15.13	16.02			

Starting Purge Time: 1400
Ending Purge Time: 1435

Average Purge Rate: 150 ml/min
Total Volume Purged: 3.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all collected		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-265
Date: 4/23/14
Time at Well Site: 1255
Time of Sample Collection: 1325
Sampled by: AJK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 50, cloudy
Wind: moderate
Precipitation: drizzle

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 15.62 ft TOC
Depth to Water : 6.39 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1305	1310	1315	1320			
Volume Removed (liters):	1.5	2	2.5	3			
pH:	7.28	7.26	7.25	7.24			
Specific Conductance (uS/cm):	871	871	871	873			
Temperature (Degrees C):	10.69	10.69	10.79	10.82			
Turbidity (NTU):	4.5	–	4.14	6.2			
ORP ~~Eh~~ (millivolts):	48.1	52.4	51.9	49.5			
DO (mg/l) :	4.48	3.52	3.65	3.27			
Water Level (ft BTOC)	9.22	10.21	11.45	12.31			

Starting Purge Time: 1256
Ending Purge Time: 1320

Average Purge Rate: ml/min
Total Volume Purged: liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	Collected all		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: AJK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-260
Date: 4/23/14
Time at Well Site: 1155
Time of Sample Collection: 1235
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder Pump~~
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 45°F, clouds
Wind: moderate
Precipitation: light rain

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 24.54 ft TOC
Depth to Water : 8.18 ft TOC
Column of Water in Well: 16.3 ft
Depth to Water after Purge: 17.79 ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1205	1215	1220	1225	1230		
Volume Removed (liters):	1	1.5	2	2.5	3.5		
pH:	7.16	7.09	7.08	7.07	7.07		
Specific Conductance (uS/cm):	819	816	815	815	813		
Temperature (Degrees C):	12.67	12.10	11.86	11.68	11.72		
Turbidity (NTU):	3.9	4.8	5.2	3.4	3.07		
~~ORP~~ ~~Eh~~ (millivolts):	10.5	23.2	28.5	34.2	39.1		
DO (mg/l) :	2.42	2.89	2.93	2.54	2.47		
Water Level (ft BTOC)	11.21	14.54	15.73	16.75	17.79		

Starting Purge Time: 1200
Ending Purge Time: 1230

Average Purge Rate: 150 ml/min
Total Volume Purged: 3.5 L ~~liters~~

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40's, cloudy
Wind: light
Precipitation: -

SAMPLE DESCRIPTION

Sample ID: MW-28
Date: 4/24/14
Time at Well Site: 630
Time of Sample Collection: 715
Sampled by: AJK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.347 liters/ft
Column of Water in Well: 12 feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.67 ft TOC
Depth to Water : 5.66 ft TOC
Column of Water in Well: 12 ft
Depth to Water after Purge: 13.78 ft TOC

Appearance of Sample: clear water w/ some slight suspended solids

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	645	655	705	710			
Volume Removed (liters):	1	2	2.5	3			
pH:	6.82	6.83	6.83	6.85			
Specific Conductance (uS/cm):	1.476	1.478	1.479	1.477			
Temperature (Degrees C):	10.81	10.74	10.64	10.74			
Turbidity (NTU):	21.1	18.6	20.3	17.2			
~~Eh~~ ORP (millivolts):	49.8	32.2	27.9	30.3			
DO (mg/l) :	0.41	0.33	0.35	0.38			
Water Level (ft BTOC)	9.73	11.68	13.09	13.78			

Starting Purge Time: 634
Ending Purge Time: 710
Average Purge Rate: 150 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all collected		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: AJK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-29
Date: 4/24/14
Time at Well Site: 905
Time of Sample Collection: 1005
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 50, cloudy
Wind: light
Precipitation: drizzle

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 20.35 ft TOC
Depth to Water : 1.89 ft TOC
Column of Water in Well: 18 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water, very slight turbidity

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7		
Time:	910	915	925	930	940	945	950	955	100
Volume Removed (liters):	1.5	2	2.5	3	4	4.5	5	5.5	6
pH:	7.27	7.23	7.21	7.21	7.33	7.18	7.16	7.22	7.
Specific Conductance (uS/cm):	1.108	1.108	1.103	1.056	0.665	1.065	1.024	0.90	0.
Temperature (Degrees C):	9.78	9.71	9.81	9.96	9.90	10.68	10.59	10.5	10
Turbidity (NTU):	5.5	7.8	4.9	20.0	—	12.0	17.6	16.4	
~~Eh~~ ORP (millivolts):	58.9	61.0	65.0	66.6	69.3	71.8	72.3	73.0	7
DO (mg/l) :	2.88	2.65	2.44	3.89	7.27	4.12	5.10	5.41	4.
Water Level (ft BTOC)	6.14	7.66	8.96	11.42	14.32	15.52	16.21	16.94	17.

Starting Purge Time: 901
Ending Purge Time:

Average Purge Rate: ml/min
Total Volume Purged: liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all Collected		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-31
Date: 4/23/14
Time at Well Site: 955
Time of Sample Collection: 835 on 4/25/14
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 50's, cloudy
Wind: moderate
Precipitation: light rain

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.78 ft TOC
Depth to Water : 6.18 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: dry ft TOC

Appearance of Sample: clear water, very slight turbidity

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1005	1015	1025	1035	1040	828 on 4/25	
Volume Removed (liters):	1	2	3	4			
pH:	7.26	7.21	7.22	7.17	dry		
Specific Conductance (uS/cm):	1082	1097	1098	1097			
Temperature (Degrees C):	9.54	9.13	9.19	9.37			
Turbidity (NTU):	-	3.81	5.4	12.8			
ORP ~~Eh~~ (millivolts):	-79.5	-56.8	-40.2	-24.8			
DO (mg/l) :	3.31	2.93	2.97	2.30			
Water Level (ft BTOC)	8.24	11.09	13.95	16.28		15.59	

Starting Purge Time: 957
Ending Purge Time: 1040

Average Purge Rate: 150 ml/min
Total Volume Purged: 4 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all collected		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 80's, cloudy
Wind: light
Precipitation:

SAMPLE DESCRIPTION

Sample ID: MW-430
Date: 4/24/14
Time at Well Site: 1605
Time of Sample Collection: 1650
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 40.75 ft TOC
Depth to Water : 10.94 ft TOC
Column of Water in Well: 30 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1620	1625	1630	1635	1640	1645	
Volume Removed (liters):	2	2.5	3	3.5	4	4.5	
pH:	7.18	7.21	7.31	7.32	7.31	7.34	
Specific Conductance (uS/cm):	0.770	0.763	0.725	0.721	0.714	0.715	
Temperature (Degrees C):	12.02	12.13	11.97	12.09	12.13	12.25	
Turbidity (NTU):	3.7	3.4	3.0	3.7	3.4	4.6	
~~ORP Eh~~ (millivolts):	56.2	57.1	54.0	53.6	55.6	56.2	
DO (mg/l) :	0.40	0.60	1.95	2.26	2.10	2.35	
Water Level (ft BTOC)	13.89	14.13	14.65	15.08	15.68	16.39	

Starting Purge Time: 1610
Ending Purge Time: 1650
Average Purge Rate: 150 ml/min
Total Volume Purged: 4.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all Collected		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

Golder Associates

GROUNDWATER SAMPLE COLLECTION FORM

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 50's cloudy
Wind: light
Precipitation: drizzle

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

SAMPLE DESCRIPTION

Sample ID: MW-46
Date: 4/24/14
Time at Well Site: 1015
Time of Sample Collection: 1115
Sampled by: AJK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 41.17 ft TOC
Depth to Water : 11.00 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water, very slight particulates suspended

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1030	1040	1045	1050	1055	1100	1105
Volume Removed (liters):	1.5	2.5	3	3.5	4.5	5.5	6.5
pH:	7.87	7.33	7.15	7.12	7.11	7.10	7.11
Specific Conductance (uS/cm):	0.326	0.519	0.643	0.673	0.684	0.693	0.692
Temperature (Degrees C):	12.43	12.46	12.56	12.52	12.64	12.58	12.60
Turbidity (NTU):	12.8	12.2	12.3	11.8	4.4	3.8	4.1
ORP ~~Eh~~ (millivolts):	64.5	72.7	36.0	18.3	9.0	-2.8	-3.1
DO (mg/l) :	3.26	1.20	0.29	0.26	0.18	0.06	0.02
Water Level (ft BTOC)	12.20	12.40	12.54	12.58	12.58	12.59	12.59

Average Purge Rate: 200 ml/min
Total Volume Purged: 6.5 liters

Starting Purge Time: 1020
Ending Purge Time: 1105

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)			
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

Field Team Leader: AJK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 40's, cloudy
Wind: -
Precipitation: -

SAMPLE DESCRIPTION

Sample ID: MW-47D
Date: 4/24/14
Time at Well Site: 745
Time of Sample Collection: 820
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD ~~BLANK~~ Duplicate NOTES

Field ~~Blank~~ Dup Name: dup-01
~~Field Blank/Rinse Water type:~~

Lot Number:
Analyses: Same as N

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: _____ inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 42.02 ft TOC
Depth to Water: 11.16 ft TOC
Column of Water in Well: 31.8 ft
Depth to Water after Purge: 11.43 ft TOC

Appearance of Sample: Clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	750	755	805	810	815	820	Sampled
Volume Removed (liters):	1	2	3	4	4.5	5	
pH:	7.15	7.03	6.97	6.98	6.99	6.98	
Specific Conductance (uS/cm):	1.042	1.186	1.220	1.233	1.237	1.238	
Temperature (Degrees C):	13.35	13.44	13.55	13.62	13.61	13.62	
Turbidity (NTU):	2.5	1.3	1.9	1.9	0.7	~~1.1~~ 0.5	
ORP ~~Eh~~ (millivolts):	66.2	3.4	-29.8	-26.3	-27.2	-26.3	
DO (mg/l):	0.69	0.64	0.53	0.35	0.29	0.40	
Water Level (ft BTOC)	11.38	11.36	11.41	11.42	11.42	11.43	

Starting Purge Time: 741
Ending Purge Time: 820

Average Purge Rate: 200 ml/min
Total Volume Purged: 5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all collected		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			
	Dup-01 collected here		

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 50, cloudy
Wind: moderate
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-53
Date: 4/23/14
Time at Well Site: 905
Time of Sample Collection: 805 on 4/25/14
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.347 liters/ft
Column of Water in Well: 8.7 feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging: peristaltic
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.84 ft TOC
Depth to Water : 3.08 ft TOC
Column of Water in Well: 8.7 ft
Depth to Water after Purge: dry ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	915	925	935	940	945	947	800 on 4/25
Volume Removed (liters):	1	2	3	3.5	4.5		
pH:	7.22	7.18	7.12	7.14	7.15		
Specific Conductance (uS/cm):	798	795	774	766	768	dry	
Temperature (Degrees C):	7.97	7.86	7.73	7.92	8.00		
Turbidity (NTU):	6.0	5.5	4.9	5.3	3.94		
~~ORP~~ Eh (millivolts):	-195.7	-176.3	-170.9	-153.2	-137.4		
DO (mg/l) :	1.18	0.45	0.48	0.74	0.18		
Water Level (ft BTOC)	4.65	6.29	8.20	9.65	10.62	11.2	8.98

Starting Purge Time: 910
Ending Purge Time: 947

Average Purge Rate: 150 ml/min
Total Volume Purged: 4.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all collected		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 50, cloudy
Wind: moderate
Precipitation: drizzle.

SAMPLE DESCRIPTION

Sample ID: MW-57
Date: 4/24/14
Time at Well Site: 1500
Time of Sample Collection: 1540
Sampled by: ASK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD ~~BLANK~~ Dup NOTES

Field Blank Name: Dup-02
~~Field Blank /Rinse Water type~~:
~~Lot Number~~:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: _____ inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 35.4 ft TOC
Depth to Water: 10.74 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1505	1510	1515	1520	1530	1535	1540
Volume Removed (liters):	1	1.5	2	3.5	4	5	6
pH:	7.31	7.20	7.15	7.13	7.10	7.08	7.07
Specific Conductance (uS/cm):	0.688	0.707	0.761	0.767	0.764	0.783	0.792
Temperature (Degrees C):	11.23	11.33	11.36	11.54	11.99	12.07	12.06
Turbidity (NTU):	5.1	5.0	3.8	2.6	–	2.1	2.6
ORP ~~Eh~~ (millivolts):	35.4	12.8	-1.3	0.2	9.6	10.0	11.3
DO (mg/l) :	1.39	0.24	0.56	0.73	0.57	0.48	0.38
Water Level (ft BTOC)	11.55	11.65	11.77	11.83	12.24	12.35	12.54

Starting Purge Time: 1458
Ending Purge Time: 1540

Average Purge Rate: 200 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	collected All		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			
	Dup-02 collected here		

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ASK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-61
Date: 4/24/14
Time at Well Site: 1145
Time of Sample Collection: 1240
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 50's cloudy
Wind: light
Precipitation:

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 38.38 ft TOC
Depth to Water : 8.39 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1220	1225	1230	1235			
Volume Removed (liters):	2	2.5	4	4.5			
pH:	8.58	8.61	8.63	8.63			
Specific Conductance (uS/cm):	0.547	0.547	0.549	0.549			
Temperature (Degrees C):	11.95	12.46	12.53	12.33			
Turbidity (NTU):	5.2	5.0	5.6	6.2			
ORP ~~Eh~~ (millivolts):	44.4	44.5	36.8	34.9			
DO (mg/l) :	5.26	5.32	5.41	5.37			
Water Level (ft BTOC)	13.05	13.81	14.85	15.42			

Starting Purge Time: 1156
Ending Purge Time: 1235

Average Purge Rate: 150-200 ml/min
Total Volume Purged: 4.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all collected		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: Sunny 50s
Wind: light
Precipitation: —

SAMPLE DESCRIPTION

Sample ID: MW-62
Date: 4/22/14
Time at Well Site: 1206
Time of Sample Collection: 1440
Sampled by: ATK
Sampling Method: ~~Peristaltic~~/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.62 liters/ft
Column of Water in Well: 28 feet
Volume of Water in Well: 18 liters
Well Volumes to Purge: 3
Min. Volume to be Purged: 92 liters
Method of Purging: Bladder
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72 ft TOC
Depth to Water : 44.28 ft TOC 42.93 after pump in
Column of Water in Well: ~28 ft
Depth to Water after Purge: 68.60 ft TOC

Appearance of Sample: Slightly cloudy water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	~~1320~~ 1310	1405	1430				
Volume Removed (~~liters~~ gal):			7				
pH:			7.17				
Specific Conductance (uS/cm):			0.657				
Temperature (Degrees C):			15.64				
Turbidity (NTU):			34.0				
ORP ~~Eh~~ (millivolts):			62.9				
DO (mg/l) :			1.38				
Water Level (ft BTOC)	43.24	66.5	68.60				

Starting Purge Time: 1310
Ending Purge Time: 1430

Average Purge Rate: 400-300 ml/min
Total Volume Purged: 7 gallons ~~liters~~

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size		Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials		NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials		NA	None
Nitrate/Nitrite (353.2)	500mL Plastic	all collected		
Manganese, Iron (6010B)	250 mL Plastic			
Total Organic Carbon (5310 B-2011)	250 mL Plastic			
Chloride/Sulfate (300.0)	500mL Plastic			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-63
Date: 4/24/14
Time at Well Site: 1315
Time of Sample Collection: 1425
Sampled by: ATK
Sampling Method: ~~Peristaltic~~/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 50°F, cloudy
Wind: light - moderate
Precipitation: none

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72 ft TOC
Depth to Water : 47.9 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1335	1352	1400	1410	1415	1420	1425
Volume Removed (liters):	3	4	6	8	10	14	sampled
pH:		7.03	7.00	6.99	6.97	6.97	
Specific Conductance (uS/cm):		1.093	1.094	1.092	1.090	1.087	
Temperature (Degrees C):		11.83	11.97	11.93	11.92	11.89	
Turbidity (NTU):		7.08	2.7	1.8	1.2	1.2	
ORP ~~Eh~~ (millivolts):		6.1	8.3	12.7	14.2	15.6	
DO (mg/l) :		0.01	0.34	0.54	0.34	0.31	
Water Level (ft BTOC)	49.45	49.62	50.96	51.32	51.56	51.56	

Starting Purge Time: 1320
Ending Purge Time: 1420

Average Purge Rate: 200-300 ml/min
Total Volume Purged: liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all sampled		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-64
Date: 4/23/14
Time at Well Site: 745
Time of Sample Collection: 840
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 50, cloudy
Wind: moderate
Precipitation: none

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: liters/ft
Column of Water in Well: 10.6 feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging: peristaltic
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 29.00 ft TOC
Depth to Water : 18.42 ft TOC
Column of Water in Well: 10.6 ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	~~750~~ 755	800	810	820	830	835	840
Volume Removed (liters):	1	1.5	2	3	4	5	5.5 Sampled
pH:	7.23	7.20	7.19	7.18	7.17	7.17	7.17
Specific Conductance (uS/cm):	836	836	840	840	838	838	838
Temperature (Degrees C):	10.04	10.07	10.20	10.27	10.36	10.38	10.38
Turbidity (NTU):	17	7.0	3.1	3.5	3.5	1.7	1.4
ORP ~~Eh~~ (millivolts):	158.7	133.2	116.0	87	69.8	63.4	63.2
DO (mg/l) :	1.75	1.40	1.19	1.13	1.12	1.06	1.02
Water Level (ft BTOC)	19.50	19.78	19.96	20.02	20.30	20.33	20.35

Starting Purge Time: 748
Ending Purge Time: 840
Average Purge Rate: 150 ml/min
Total Volume Purged: 5.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	all sampled		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: Sunny 60s
Wind: light
Precipitation: -

SAMPLE DESCRIPTION

Sample ID: MW-65
Date: 4/22/14
Time at Well Site: 1515
Time of Sample Collection: 1645
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72.89 ft TOC
Depth to Water : 29.73 ft TOC
Column of Water in Well: 43.16 ft
Depth to Water after Purge: 63.87 ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1525	1615	1629	1635	1640	1645	
Volume Removed (~~liters~~) gal:		6	9	9.5	10		
pH:		6.97	6.98	6.98	6.98		
Specific Conductance (uS/cm):		767	786	779	777	Sampled	
Temperature (Degrees C):		16.01	15.93	15.94	15.90		
Turbidity (NTU):		9.5	3.1	3.0	2.5		
ORP ~~Eh~~ (millivolts):		-225.3	-245.6	-217.0	-212.4		
DO (mg/l) :		0.20	0.18	0.19	0.23		
Water Level (ft BTOC)		52.85	58.87	61.70	63.87		

Starting Purge Time: 1525
Ending Purge Time: 1645

Average Purge Rate: 500 ml/min
Total Volume Purged: 10 gal liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL
Methane/Ethane/Ethene (AM20GAX)	(3) 40 ml vials	NA	None
Nitrate/Nitrite (353.2)			
Manganese, Iron (6010B)	911 collected		
Total Organic Carbon (5310 B-2011)			
Chloride/Sulfate (300.0)			

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-8
Date: 7/16/14
Time at Well Site: 1030
Time of Sample Collection: 1130
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 70's
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: _____ inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 8.5 ft TOC
Depth to Water : 0.76 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: Clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7		
Time:	1040	1050	1100	1105	1110	1115	1120	1125	1130
Volume Removed (liters):		1.5	2.5	3	4	5	6	8	9
pH:		7.41	7.39	7.37	7.31	7.32	7.31	7.31	7.31
Specific Conductance (uS/cm):		0.968	1.098	1.131	1.138	1.145	1.155	1.159	1.159
Temperature (Degrees C):		17.81	18.33	18.53	18.81	18.92	18.94	19.05	19.15
Turbidity (NTU):		0.9	0.9	0.7	1.1	1.2	0.6	0.4	0.4
ORP (millivolts):		56.0	56.2	57.4	58.2	58.1	59.8	61.5	60.9
DO (mg/l) :		1.74	1.04	0.76	0.63	0.71	0.41	0.27	0.27
Water Level (ft BTOC)	0.76	1.97	2.16	2.21	2.50	2.25	2.16	2.09	2.08

Starting Purge Time: 1040
Ending Purge Time: 1130

Average Purge Rate: 150-200 ml/min
Total Volume Purged: 9 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 60's
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-15
Date: 7/15/14 - 7/16/14
Time at Well Site: 845 1635
Time of Sample Collection: 1645 on 7/16/14
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: Dup-01
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: Peri
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.70 ft TOC
Depth to Water : 4.94 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: 12.NA ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Begin Purge 1	Purge 2	7/16 Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	850	905	1640				
Volume Removed (liters):		5 L	~~5.06~~				
pH:			7.21				
Specific Conductance (uS/cm):			0.912				
Temperature (Degrees C):			16.67				
Turbidity (NTU):			5.4				
ORP (millivolts):			44.6				
DO (mg/l)			5.84				
Water Level (ft BTOC)	4.94	Dry	4.99				

Starting Purge Time: 850
Ending Purge Time: 905
Average Purge Rate: 300 ml/min
Total Volume Purged: 5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-19
Date: 7/15/14
Time at Well Site: 920
Time of Sample Collection: 1120 on 7/18/14
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: Sunny, 70's
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: Peri
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.81 ft TOC
Depth to Water: 2.45 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: 10.90 ft TOC

Appearance of Sample: clear water, slight turbidity

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4 (7/18)	Purge 5	Purge 6	Purge 7
Time:	925	935	955	1115			
Volume Removed (liters):		4	6				
pH:			7.14				
Specific Conductance (uS/cm):			0.644				
Temperature (Degrees C):			17.29				
Turbidity (NTU):			82.6				
ORP (millivolts):			-77.5				
DO (mg/l) :			1.48				
Water Level (ft BTOC)		5.45	10.90	5.05			

Starting Purge Time: 925
Ending Purge Time: 955

Average Purge Rate: 200 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-24
Date: 7/15/14
Time at Well Site: 1020, 7/18 800
Time of Sample Collection: 800 on 7/18
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60's
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging: Peri
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.62 ft TOC
Depth to Water: ~~N.67~~ 2.99 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: 16.7 ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4 (7/18)	Purge 5	Purge 6	Purge 7
Time:	1030	1100	1115	805			
Volume Removed (liters):		5L	7L				
pH:		6.94					
Specific Conductance (uS/cm):		0.950					
Temperature (Degrees C):		18.34					
Turbidity (NTU):		7.31					
ORP (millivolts):		40.3					
DO (mg/l) :		1.90					
Water Level (ft BTOC)	2.99	14.40	16.7	14.16			

Starting Purge Time: 1030
Ending Purge Time: 1115

Average Purge Rate: 200 ml/min
Total Volume Purged: 7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-25S
Date: 7/15/14
Time at Well Site: 1140
Time of Sample Collection: 1610 on 7/17/14
Sampled by: ASK
Sampling Method: Peristaltic/~~Bladder Pump~~
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 70s
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: _____ inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: Peri
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 18.46 ft TOC
Depth to Water : 5.94 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: 18.20 ft TOC

Appearance of Sample: Slightly turbid water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5 (7/17@1605)	Purge 6	Purge 7
Time:	1155	1335	1340		1605		
Volume Removed (liters):	1	4	5				
pH:	6.86	6.78	6.78				
Specific Conductance (uS/cm):	2.064	1.954	1.961				
Temperature (Degrees C):	17.67	18.45	17.96				
Turbidity (NTU):	—	11.2	10.7				
ORP (millivolts):	-93.6	-94.8	-87.3				
DO (mg/l) :	0.39	0.62	0.57				
Water Level (ft BTOC)	9.32	17.15	18.20		18.36		

Starting Purge Time: 1150 - 1155 stopped, 1320 -
Ending Purge Time: 1340
Average Purge Rate: 250 ml/min
Total Volume Purged: 5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-25D
Date: 7/16/14
Time at Well Site: 1400
Time of Sample Collection: 1540
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 70's
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: _____ inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: (Yes) No

well purged dry at 1515

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 28.71 ft TOC
Depth to Water : 4.85 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: DTW = 26.12 on 7/17 at 1535, clear water w/ very slight turbidity

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7	
Time:	1420	1425	1430	1435	1440	1500	1505	151
Volume Removed (liters):	2	3	4	5	6	8	9	10
pH:	7.13	7.19	7.21	7.19	7.15	7.09	7.10	7.14
Specific Conductance (uS/cm):	0.859	0.857	0.857	0.852	0.843	0.862	0.858	0.8
Temperature (Degrees C):	18.62	19.96	20.55	19.50	19.98	18.27	19.66	20.
Turbidity (NTU):	3.4	3.6	4.1	4.5	4.8	4.4	1.6	1.
ORP (millivolts):	73.8	67.6	67.5	70.1	74.4	70.9	62.7	52.
DO (mg/l) :	0.36	0.34	0.44	0.59	0.93	1.16	0.71	0.5
Water Level (ft BTOC)	10.50	12.31	13.30	16.32	18.23	22.45	23.85	24.

Starting Purge Time: 1408
Ending Purge Time: 1515 2

Average Purge Rate: 200 ml/min (Air in tubing)
Total Volume Purged: 10 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70's
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-26S
Date: 7/15/14
Time at Well Site: 1535 1000 on 7/18
Time of Sample Collection: 1610 on 7/18/14
Sampled by: ATE
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 15.62 ft TOC
Depth to Water : 4.63 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water w/ slight turbidity

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3 (7/18)	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1540	1610	1000				
Volume Removed (liters):		6	6				
pH:			7.15				
Specific Conductance (uS/cm):			0.966				
Temperature (Degrees C):			21.59				
Turbidity (NTU):			12.3				
ORP (millivolts):			147.6				
DO (mg/l) :			2.12				
Water Level (ft BTOC)		15.81	13.40				

Starting Purge Time: 1540
Ending Purge Time: 1610
Average Purge Rate: 200 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-26D
Date: 7/15/14
Time at Well Site: 1420
Time of Sample Collection: 7/17/14 @ 1510
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 70's cloudy
Wind: 10 mph
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 24.54 ft TOC
Depth to Water : 5.86 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: DTW = 22.59 @ 1505 on 7/17/14 before sampling, clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1432	1438	1446	1451	1455	1503	1507 1515
Volume Removed (liters):	2	2.5	3	3.5	4	4.5	5.5 7
pH:	6.88	6.84	6.94	6.91	6.90	6.87	6.95 Dry
Specific Conductance (uS/cm):	0.806	0.797	0.799	0.796	0.795	0.793	0.798
Temperature (Degrees C):	19.64	19.98	20.56	20.53	20.66	20.41	20.60
Turbidity (NTU):	7.9	~~8.7~~ 3.8	4.2	3.1	3.6	3.7	8.0
ORP (millivolts):	47.4	38.1	36.0	45.4	46.7	49.5	51.4
DO (mg/l) :	0.42	0.32	0.33	0.43	0.68	1.19	1.46
Water Level (ft BTOC)	10.13	12.65	15.55	17.15	19.78	20.65	21.90 23.10

Starting Purge Time: 1425
Ending Purge Time: 1515

Average Purge Rate: 200 ml/min
Total Volume Purged: 7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	1/2 full bottles
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-28
Date: 7/16/14
Time at Well Site: 1530
Time of Sample Collection: 1610
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 70's
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: 0.347 liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging: peri
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.67 ft TOC
Depth to Water : 3.42 ft TOC
Column of Water in Well: 14.2 ft
Depth to Water after Purge: 14.15 ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1545	1550	1555	1600	1605	1610	
Volume Removed (liters):	2	3	3.5	4	4.5	Sampled	
pH:	6.95	6.96	6.95	6.95	6.96		
Specific Conductance (uS/cm):	1.467	1.465	1.466	1.461	1.457		
Temperature (Degrees C):	18.43	19.07	19.10	19.18	19.11		
Turbidity (NTU):	1.0	1.0	1.1	1.5	2.0		
ORP (millivolts):	-33.6	-45.4	-54.6	-59.6	-59.2		
DO (mg/l) :	0.29	0.29	0.34	0.29	0.28		
Water Level (ft BTOC)	—	10.70	11.57	13.05	14.15		

Starting Purge Time: 1535
Ending Purge Time: 1605

Average Purge Rate: 200 ml/min
Total Volume Purged: 5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-29
Date: 7/17
Time at Well Site: 1010
Time of Sample Collection: 1100 on 7/18/17
Sampled by: AJK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 70°F
Wind: Light
Precipitation: None

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 20.35 ft TOC
Depth to Water : 3.45 ft TOC
Column of Water in Well: 16.9 ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: Slightly turbid water, not all parameters collected. 7/18

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1025	1035	1045	1100	1105	1110	1100
Volume Removed (liters):	2	3	4	5	5.5	6	
pH:	7.00	7.04	7.08	7.02	6.95	6.95	
Specific Conductance (uS/cm):	1.134	1.133	1.061	1.125	1.131	1.134	
Temperature (Degrees C):	15.99	16.80	17.11	15.83	15.64	15.92	
Turbidity (NTU):	5.1	6.5	8.9	6.5	10.0	9.5	
ORP (millivolts):	-8.6	-13.6	2.2	1.3	-3.8	-4.2	
DO (mg/l) :	0.53	0.46	1.21	2.73	1.29	0.84	
Water Level (ft BTOC)	9.35	12.0	14.85	17.7	19.01	20.2	19.31

Starting Purge Time: 1017
Ending Purge Time: 1110

Air in tubing
Average Purge Rate: 100-150 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	✓
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	✓
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	½ full
~~Manganese, Iron (6010B)~~	~~Test America~~	~~(1) 250 mL plastic~~	~~HNO3~~	Not collected
~~Total Organic Carbon (5310 B 2011)~~	~~Test America~~	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70 s
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-31
Date: 7/14/14
Time at Well Site: 1520
Time of Sample Collection: 1430 on 7/17/14
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.55 ft TOC
Depth to Water : 5.50 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: 17.35 ft TOC

Appearance of Sample: purged dry on 7/14/14, slightly turbid water

WELL PURGE CONTROL

	7/17 Purge 1	Purge 2	7/17 Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1520	1545	1425				
Volume Removed (liters):		~6L	6				
pH:		Dry	7.29				
Specific Conductance (uS/cm):			1.091				
Temperature (Degrees C):			20.49				
Turbidity (NTU):			4.2				
ORP (millivolts):			123.0				
DO (mg/l) :			2.31				
Water Level (ft BTOC)	5.50	17.35	15.60				

Starting Purge Time: 1520
Ending Purge Time: 1545

Average Purge Rate: 200 ml/min
Total Volume Purged: 6L liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	1/2 full sample bottles
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 60's, clear
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-430
Date: 7/17/14
Time at Well Site: 715
Time of Sample Collection: 815
Sampled by: AKK
Sampling Method: Peristaltic/~~Bladder~~-Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 40.75 ft TOC
Depth to Water: 7.25 ft TOC
Column of Water in Well: 33.5 ft
Depth to Water after Purge: 13.75 ft TOC

Appearance of Sample: clear water w/ very small particles suspended

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	745	755	800	805	810		
Volume Removed (liters):	3	4	5	5.5	6		
pH:	6.96	6.84	6.85	6.85	6.92		
Specific Conductance (uS/cm):	0.723	0.722	0.721	0.721	0.721		
Temperature (Degrees C):	13.99	13.83	13.74	13.82	13.86		
Turbidity (NTU):	1.7	2.0	1.9	2.3	2.2		
ORP (millivolts):	204.4	204.7	199.9	197.3	191.5		
DO (mg/l) :	1.00	0.86	0.76	0.72	0.72		
Water Level (ft BTOC)	10.93	12.29	12.93	13.26	13.75		

Starting Purge Time: 720
Ending Purge Time: 810

Average Purge Rate: ~200 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: AGK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70 s
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-46
Date: 7/17/14
Time at Well Site: 1120
Time of Sample Collection: 1240
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: Dup-02
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 41.17 ft TOC
Depth to Water : 7.86 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1140	~~1150~~ 1200	1210	1220	1230	1238	
Volume Removed (liters):	2	5	7	9	11	12	
pH:	7.24	6.90	6.96	6.94	6.95	6.93	
Specific Conductance (uS/cm):	0.368	0.715	0.718	0.745	0.755	0.762	
Temperature (Degrees C):	14.73	15.05	14.87	15.07	14.97	14.98	
Turbidity (NTU):	10.0	3.1	1.3	2.6	2.7	1.2	
ORP (millivolts):	30.2	-13.2	-13.7	-28.5	-31.6	-24.4	
DO (mg/l) :	1.75	0.71	0.52	0.40	0.35	0.33	
Water Level (ft BTOC)	9.68	9.76	10.11	10.05	10.07	10.11	

Starting Purge Time: 1127
Ending Purge Time: 1239
Average Purge Rate: 200 ml/min
Total Volume Purged: 12 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: 8-MW-470
Date: 7/17/14
Time at Well Site: 1300
Time of Sample Collection: 1350
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 70's
Wind: light
Precipitation: N/A

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 42.02 ft TOC
Depth to Water : 8.40 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: Clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1320	1330	1340	1345			
Volume Removed (liters):	2	4	6	7			
pH:	7.06	7.04	7.00	7.02			
Specific Conductance (uS/cm):	1.119	1.118	1.116	1.119			
Temperature (Degrees C):	19.58	19.24	18.78	19.04			
Turbidity (NTU):	0.8	1.0	0.9	0.8			
ORP (millivolts):	46.5	48.8	50.8	50.4			
DO (mg/l) :	0.45	0.36	0.31	0.32			
Water Level (ft BTOC)	8.65	8.67	8.68	8.69			

Starting Purge Time: 1305
Ending Purge Time: 1347

Average Purge Rate: 250 ml/min
Total Volume Purged: 8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70s
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-53
Date: 7/14/14
Time at Well Site: 1600 840 on 7/18
Time of Sample Collection: 855 on 7/18
Sampled by: ATL
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.84 ft TOC
Depth to Water : 2.61 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3 (7/18)	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1600	1620	845				
Volume Removed (liters):		5L	5				
pH:		Dry	7.15				
Specific Conductance (uS/cm):			0.870				
Temperature (Degrees C):			15.78				
Turbidity (NTU):			4.2				
ORP (millivolts):			206.5				
DO (mg/l) :			2.39				
Water Level (ft BTOC)	2.61	11.65	7.11				

Starting Purge Time: 1600
Ending Purge Time: 1620
Average Purge Rate: 250 ml/min
Total Volume Purged: 5L liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-57
Date: 7/17/14
Time at Well Site: 835
Time of Sample Collection: 945
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 65°F, clear
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 35.40 ft TOC
Depth to Water : 6.85 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: Clear water w/ slight effervescence

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	855	905	917	925	930	935	940
Volume Removed (liters):	2	3	4	5	6	7	8
pH:	6.93	7.01	6.97	6.95	6.97	6.96	6.97
Specific Conductance (uS/cm):	0.819	0.824	0.824	0.822	0.821	0.822	0.821
Temperature (Degrees C):	14.14	14.39	13.90	14.16	14.31	14.27	14.11
Turbidity (NTU):	1.7	1.8	1.2	0.7	0.7	0.8	0.7
ORP (millivolts):	46.6	32.8	24.7	19.9	16.2	13.1	12.8
DO (mg/l) :	0.77	0.52	0.47	0.41	0.42	0.39	0.42
Water Level (ft BTOC)	7.85	7.91	7.96	8.21	8.25	8.30	8.34

Starting Purge Time: 843
Ending Purge Time: 940

Average Purge Rate: 150 ml/min
Total Volume Purged: 8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70s
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-61
Date: 7/16/14
Time at Well Site: 1140
Time of Sample Collection: 1335
Sampled by: AK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

page 1 of 2

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 38.38 ft TOC
Depth to Water : 4.65 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water w slight effervescence

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7/8	
Time:	1200	1215	1220	1230	1235	1240	1250	1300
Volume Removed (liters):	2	4	5	6	7	8	10	11
pH:	7.75	7.91	8.01	7.98	8.07	7.96	7.84	7.95
Specific Conductance (uS/cm):	0.717	0.705	0.699	0.689	0.682	0.681	0.673	0.673
Temperature (Degrees C):	13.84	15.68	14.90	14.77	14.47	14.66	14.84	14.94
Turbidity (NTU):	0.7	1.2	1.3	1.5	0.8	0.9	1.0	–
ORP (millivolts):	85.2	64.5	49.2	39.1	34.6	30.1	33.2	33.7
DO (mg/l) :	0.55	0.29	0.24	0.21	0.25	0.36	0.67	1.11
Water Level (ft BTOC)	7.82	11.76	13.49	15.21	15.95	16.62	18.01	19.65

Starting Purge Time: 1145
Ending Purge Time: 1330

Average Purge Rate: 200 ml/min
Total Volume Purged: 17 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: AK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70s
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-61
Date: 7/16/14
Time at Well Site: 1206
Time of Sample Collection: 1335
Sampled by: ~~1335~~ ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

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FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 38.38 ft TOC
Depth to Water : 4.65 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: Clear water w/ slight effervescence

WELL PURGE CONTROL

	Purge ~~1~~ 9	Purge 10	Purge 11	Purge 12	Purge 13	Purge 14	Purge 7
Time:	1305	1310	1315	1320	1325	1330	
Volume Removed (liters):	12	13	14	15	16	17	
pH:	7.97	7.85	7.78	7.82	7.80	7.79	
Specific Conductance (uS/cm):	0.695	0.704	0.705	0.705	0.705	0.701	
Temperature (Degrees C):	14.55	14.14	14.22	14.41	14.32	14.74	
Turbidity (NTU):	0.9	0.9	0.5	–	0.5	0.6	
ORP (millivolts):	35.6	37.2	35.4	29.5	26.8	25.8	
DO (mg/l) :	1.14	0.92	0.73	0.55	0.49	0.47	
Water Level (ft BTOC)	19.70	20.25	20.79	21.52	22.05	22.27	

Starting Purge Time: 1145
Ending Purge Time: 1330

Average Purge Rate: 200 ml/min
Total Volume Purged: 17 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70°F, partly cloudy
Wind: light
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-62
Date: 7/15/14
Time at Well Site: 720
Time of Sample Collection: 1045
Sampled by: AJK
Sampling Method: ~~Peristaltic~~/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.617 liters/ft
Column of Water in Well: 27.13 feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes ~~No~~

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72.00 ft TOC
Depth to Water : 44.87 ft TOC
Column of Water in Well: 27.13 ft
Depth to Water after Purge: 62.05 ft TOC

Appearance of Sample: very slight turbidity, otherwise clear water

WELL PURGE CONTROL

	Purge 1 (Begun)	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	740	800	812	910	940	1040	
Volume Removed (liters):		2	2.5	8	10	16	
pH:		5.95	6.21	6.61	6.69		
Specific Conductance (uS/cm):		0.730	0.719	0.697	0.676	0.757	
Temperature (Degrees C):		13.64	13.78	13.91	14.02	15.30	
Turbidity (NTU):		12.4	—	8.9	6.5	8.6	
ORP (millivolts):		-6.7	-55.5	-107.2	-128.9	-53.9	
DO (mg/l) :		0.75	0.67	0.53	0.53	0.64	
Water Level (ft BTOC)		46.13	47.61	53.10	—	62.05	

Starting Purge Time: 740
Ending Purge Time: 1040

Average Purge Rate: 100 ml/min
Total Volume Purged: 16 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-63
Date: 7/16/14
Time at Well Site: 700
Time of Sample Collection: 840
Sampled by: ATK
Sampling Method: ~~Peristaltic~~/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60°F
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.617 liters/ft
Column of Water in Well: ~23 feet
Volume of Water in Well: — liters
Well Volumes to Purge: —
Min. Volume to be Purged: — liters
Method of Purging: bladder
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72.00 ft TOC
Depth to Water : 49.11 ft TOC
Column of Water in Well: ~23 ft
Depth to Water after Purge: 53.1 ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	803	810	815	820	825	830	835
Volume Removed (liters):	14	16	17	18	20	22	24
pH:	6.51	6.61	6.66	6.72	6.78	6.76	6.80
Specific Conductance (uS/cm):	1.082	1.079	1.079	1.077	1.078	1.074	1.073
Temperature (Degrees C):	12.53	12.58	12.69	12.69	12.66	12.67	12.66
Turbidity (NTU):	1.6	0.4	0.6	0.3	0.5	0.2	0.3
ORP (millivolts):	98.4	78.6	67.1	58.3	50.3	49.2	45.4
DO (mg/l) :	0.40	0.34	0.35	0.35	0.36	0.33	0.30
Water Level (ft BTOC)	53.04	53.10	53.1	53.1	53.1	53.1	53.1

Starting Purge Time: 735
Ending Purge Time: 835

Average Purge Rate: 400 ml/min
Total Volume Purged: 24 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70s, Sunny
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-69
Date: 7/16/14
Time at Well Site: 915
Time of Sample Collection: 1010
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.617 liters/ft
Column of Water in Well: 14.4 feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging: peri
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 29 ft TOC
Depth to Water : 14.61 ft TOC
Column of Water in Well: 14.4 ft
Depth to Water after Purge: 17.19 ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	935	945	950	955	1005		
Volume Removed (liters):	1	3	4	5	7		
pH:	7.13	7.10	7.11	7.12	7.14		
Specific Conductance (uS/cm):	0.885	0.879	0.879	0.877	0.871		
Temperature (Degrees C):	12.40	12.19	12.39	12.42	12.69		
Turbidity (NTU):	6.2	1.8	1.3	1.6	1.2		
ORP (millivolts):	-22.1	-23.0	-26.7	-25.4	-26.8		
DO (mg/l) :	0.52	0.40	0.35	0.37	0.31		
Water Level (ft BTOC)	15.55	17.05	17.25	17.25	17.19		

Starting Purge Time: 930
Ending Purge Time: 1010
Average Purge Rate: 200 ml/min
Total Volume Purged: 7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 70's
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-65
Date: 7/15/14
Time at Well Site: 1340
Time of Sample Collection: 1600
Sampled by: ATK
Sampling Method: ~~Peristaltic~~/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: bladder
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72.89 ft TOC
Depth to Water : 28.4 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: 62.14 ft TOC

Appearance of Sample: Clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1525	1545	1550	1555	1600		
Volume Removed ~~(liters)~~ gallons:	~7	~8	~8.5	~9			
pH:		6.91	6.89	6.92	Sampled		
Specific Conductance (uS/cm):		0.913	0.911	0.912			
Temperature (Degrees C):		17.48	17.40	17.73			
Turbidity (NTU):		4.0	3.9	3.6			
ORP (millivolts):		-62.1	-62.6	-65.5			
DO (mg/l) :		0.95	1.18	1.57			
Water Level (ft BTOC)	53.85	59.20	61.62	62.14			

Starting Purge Time: 1400
Ending Purge Time: 1600

Average Purge Rate: ~200 ml/min
Total Volume Purged: 9 gallons ~~liters~~

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: ATK

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 50°F, sunny
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

SAMPLE DESCRIPTION

Sample ID: MW-08
Date: 10/8
Time at Well Site: 750
Time of Sample Collection: 920
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

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VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 8.49 ft TOC
Depth to Water : 0.74 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	800	810 815	820 825	830 835	840 845	850 855	900 905
Volume Removed (liters):	0.5	1.5 2	2.5 3	3.5 4	4.5 5	5.5 6.5	7.5 8.5
pH:	7.00	7.06 7.02	7.00 6.98	6.98 6.97	6.96 6.95	6.95 6.94	6.92 6.91
Specific Conductance (uS/cm):	1.04	1.10 1.11	1.13 1.13	1.13 1.14	1.14 1.14	1.14 1.14	1.15 1.15
Temperature (Degrees C):	15.3	15.5 15.5	15.5 15.5	15.4 15.6	15.5 15.6	15.8 15.8	16.0 16.0
Turbidity (NTU):	0.7	0.4 0.4	0.3 0.35	0.30 0.37	0.27 0.25	0.27 0.25	0.40 0.28
ORP (millivolts):	-36.9	-30.4 -46.8	-63.9 -78.3	-81.9 -99.6	-112.9 -121.8	-133.8 -143.8	-156.4 -164.2
DO (mg/l) :	2.12	0.87 0.59	0.41 0.31	0.38 0.27	0.24 0.23	0.20 0.27	0.20 0.33
Water Level (ft BTOC)	1.43	1.52 1.55	1.62 1.62	1.62 1.67	1.61 1.65	1.84 1.79	1.92 1.84

Starting Purge Time: 757
Ending Purge Time: 915

Average Purge Rate: 150-100 ml/min
Total Volume Purged: 10 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature:
Wind:
Precipitation:

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

SAMPLE DESCRIPTION

Sample ID: MW-08
Date: 10/8
Time at Well Site:
Time of Sample Collection: 920
Sampled by:
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

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VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: ft TOC
Depth to Water : ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	910	915	920				
Volume Removed (liters):	9	10					
pH:	6.89	6.89	Sampled				
Specific Conductance (uS/cm):	1.15	1.15					
Temperature (Degrees C):	16.0	16.1					
Turbidity (NTU):	0.32	0.30					
ORP (millivolts):	-170.8	-173.2					
DO (mg/l) :	0.16	0.16					
Water Level (ft BTOC)	1.87	1.95					

Starting Purge Time: 757
Ending Purge Time: 915

Average Purge Rate: 150 ml/min
Total Volume Purged: 10 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 50°F, sunny
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-15
Date: 10/7/14 → 10/9/14
Time at Well Site: 820 1600
Time of Sample Collection: 1630
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: n/a
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: _____ inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 12.70 ft TOC
Depth to Water : 5.06 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: water w/ slight turbidity

WELL PURGE CONTROL

	10/7 Purge 1	Purge 2	Purge 3	Purge 4	10/9 Purge 5	Purge 6	Purge 7
Time:	840	845	855 900	905 910	1620	1625	
Volume Removed (liters):	0.5	1	2 2.5	3.5 4	1	1.5	
pH:	7.09	7.07	7.04 7.05	7.06 7.05	7.01	6.99	
Specific Conductance (uS/cm):	0.81	0.80	0.80 0.80	0.80 0.80	0.85	0.87	
Temperature (Degrees C):	17.2	17.0	17.1 17.1	17.0 16.6	17.7	17.5	
Turbidity (NTU):	5.0	22.0	34 36.5	15.7 30.6	32.2	25.6	
ORP (millivolts):	-131.6	-134.2	-139.9 -133.1	-145.5 -141.1	-54.5	-55.3	
DO (mg/l) :	0.26	0.80	0.70 0.67	0.54 0.48	5.04	4.66	
Water Level (ft BTOC)	6.95	7.68	9.45 10.30	11.1 Dry	5.14	8.25	

Starting Purge Time: 834
Ending Purge Time: 911

Average Purge Rate: 150 ml/min
Total Volume Purged: 4 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-19
Date: 10/7/14 10/10/14
Time at Well Site: 1310
Time of Sample Collection: 10/10/14 @ 1135
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60's
Wind: moderate
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.8 ft TOC
Depth to Water : 3.06 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	10/10 Purge 6	Purge 7
Time:	1320	1325 1330	1335 1345	1350	1355	1130	
Volume Removed (liters):	0.5	1 2	3 4	4.5			
pH:	6.98	6.98 6.98	6.97 7.00	7.01			
Specific Conductance (uS/cm):	0.69	0.68 0.65	0.65 0.66	0.67			
Temperature (Degrees C):	19.0	19.0 19.0	19.1 19.2	19.0			
Turbidity (NTU):	6.7	8.4 15.6	13.5 26.2	[illegible]			
ORP (millivolts):	-109.2	-107.1 -105.9	-112.6 -118.7	-122.0			
DO (mg/l) :	0.39	0.91 1.62	1.02 0.63	0.51			
Water Level (ft BTOC)	4.14	5.04 6.02	7.6 10.2	10.7	Dry	5.34	

Starting Purge Time: 1315
Ending Purge Time: 1355

Average Purge Rate: 200 ml/min
Total Volume Purged: 5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-24
Date: 10/7/14 - 10/10/14
Time at Well Site: 1030
Time of Sample Collection: 10/10 @ 740
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 55°F, sunny
Wind: moderate
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: n/a
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: _____ inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.62 ft TOC
Depth to Water : 3.68 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: water w/ slight turbidity . WL higher on 10/10 than 10/7

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	10/10 Purge 7
Time:	1045	1050 1055	1100 1105	1110 1115	1120 1125	1130	725
Volume Removed (liters):	0.5	1 1.5	2 2.5	3 4	4.5 5		
pH:	6.86	6.84 6.87	6.89 6.92	6.95 7.00	6.99 6.92		
Specific Conductance (uS/cm):	0.93	0.93 0.93	0.92 0.92	0.91 0.91	0.91 0.92		
Temperature (Degrees C):	19.4	19.1 19.1	19.1 19.2	19.2 19.2	19.2 19.1		
Turbidity (NTU):	1.5	5.0 1.7	2.1 1.8	2.3 1.5	1.5 3.1		
ORP (millivolts):	-149.8	-151.9 -145.5	-138.4 -122.5	-117.4 -109.2	-104.0 -112.8		
DO (mg/l) :	0.30	0.28 0.45	0.67 1.29	1.74 2.34	2.74 2.33		
Water Level (ft BTOC)	5.35	7.18 8.55	10.78 13.09	13.72 14.55	15.75 16.45	Dry	1.86

Starting Purge Time: 1040
Ending Purge Time: 1130

Average Purge Rate: 100-150 ml/min
Total Volume Purged: 5.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-255
Date: 10/7/14 → 10/10/14
Time at Well Site: 1640
Time of Sample Collection: 10/10/14 @ 940
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60's Sunny
Wind: moderate
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes / No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 18.46 ft TOC
Depth to Water : 3.11 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: slightly turbid water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1705	1710	1717	1722	stopped	purge	940
Volume Removed (liters):	1	1.5	2.5	3.5			
pH:	6.63	6.83	6.84	6.85			6.80
Specific Conductance (uS/cm):	2.09	2.09	2.08	2.08			2.25
Temperature (Degrees C):	19.8	19.9	19.9	20.0			17.3
Turbidity (NTU):	2.8	2.3	2.3	2.4			23.6
ORP (millivolts):	-20.8	-138.1	-143.7	-144.5			-144.7
DO (mg/l) :	0.20	0.14	0.13	0.12			1.19
Water Level (ft BTOC)	6.62	8.75	11.03	12.75			7.30

Starting Purge Time: 1656
Ending Purge Time: 1730

Average Purge Rate: 150 ml/min
Total Volume Purged: 4 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-25D
Date: 10/7/14
Time at Well Site: 1545
Time of Sample Collection: 1620
Sampled by: ASK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60's, sun
Wind: moderate
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: Dup-01
Notes: Duplicate sample taken

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 28.71 ft TOC
Depth to Water : 5.38 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water, slight effervescence.

WELL PURGE CONTROL

	Purge 1	Purge 2		Purge 3		Purge 4	Purge 5	Purge 6	Purge 7
Time:	1555	1600	1605	1610	1615	1620			
Volume Removed (liters):	1	1.5	2	2.5	3	~~3~~			
pH:	7.07	7.04	7.05	7.05	7.05	~~7.05~~			
Specific Conductance (uS/cm):	0.84	0.84	0.84	0.84	0.84				
Temperature (Degrees C):	19.4	19.3	19.4	19.4	19.3				
Turbidity (NTU):	3.3	2.4	2.0	2.0	2.3				
ORP (millivolts):	-102.6	-103.9	-106.3	-107.2	-108.2				
DO (mg/l) :	0.27	0.23	0.20	0.18	0.21				
Water Level (ft BTOC)	8.33	9.39	11.40	12.6	13.84				

Starting Purge Time: 1548
Ending Purge Time: 1615

Average Purge Rate: 100-150 ml/min
Total Volume Purged: 3 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 60's
Wind: moderate
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-26S
Date: 10/7/14 → 10/10/14
Time at Well Site: 920
Time of Sample Collection: 10/10/14 @ 900
Sampled by: HSK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 15.62 ft TOC
Depth to Water : 4.80 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	10/10 Purge 5	Purge 6	Purge 7
Time:	925 930	935 940	945 955	1000 1005	900		
Volume Removed (liters):	0.5 1	1.5 2.0	2.5 3.5	4			
pH:	7.05 7.02	7.02 7.06	7.10 7.08	7.05			
Specific Conductance (uS/cm):	0.91 0.91	0.91 0.91	0.90 0.90	0.92			
Temperature (Degrees C):	19.3 19.5	19.5 19.6	19.7 19.8	19.7			
Turbidity (NTU):	14.9 3.8	2.8 2.2	2.9 3.1	5.8			
ORP (millivolts):	-83.0 -139.9	-137.6 -121.5	-111.9 -113.1	-122.7			
DO (mg/l) :	0.78 0.33	0.53 1.40	2.39 2.46	1.66			
Water Level (ft BTOC)	6.71 7.2	8.78 10.05	12.02 12.85	13.95 Dry	13.26		

Starting Purge Time: 923
Ending Purge Time: 1005

Average Purge Rate: 100 ml/min
Total Volume Purged: 4.5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-260
Date: 10/8/14
Time at Well Site: 1050
Time of Sample Collection: 1150
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60's, sunny
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/a
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 24.54 ft TOC
Depth to Water : 5.30 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2		Purge 3		Purge 4		Purge 5		Purge 6	Purge 7
Time:	1100	1115	1120	1125	1130	1135	1140	1145	1150		
Volume Removed (liters):	1	2.5	3	3.5	4	5	5.5	6	Sampled		
pH:	6.95	6.90	6.91	6.92	6.93	6.89	6.91	6.92			
Specific Conductance (uS/cm):	0.85	0.86	0.86	0.86	0.86	0.85	0.85	0.86			
Temperature (Degrees C):	19.2	19.3	19.1	19.0	18.9	18.4	18.5	18.6			
Turbidity (NTU):	0.85	0.9	1.5	1.5	1.35	2.0	1.9	1.1			
ORP (millivolts):	-70.6	-66.3	-65.7	-64.7	-65.9	-70.4	-71.5	-72.7			
DO (mg/l) :	0.21	0.19	0.21	0.41	0.76	0.82	0.68	1.02			
Water Level (ft BTOC)	8.95	12.62	14.90	15.95	17.75	18.95	19.72	20.64			

Starting Purge Time: 1053
Ending Purge Time: 1147

Average Purge Rate: 150 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-29
Date: 10/7/14 10/10/14
Time at Well Site: 1200
Time of Sample Collection: 10/10/14 @ 1105
Sampled by: AJK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: Sunny, 60's
Wind: moderate - gusty
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: n/a
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: _____ inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 20.35 ft TOC
Depth to Water : 1.98 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	10/10 Purge 7
Time:	1210	1220	1235	1240 1250	1255 1300	1305 1308	1100
Volume Removed (liters):		3.5	4	5 5.5	6 7	Dry	
pH:		7.03	7.03	7.02 7.04	6.80 6.78	6.78	
Specific Conductance (uS/cm):		~~7.03~~ 0.45	0.304	0.363 0.400	1.07 1.07	1.07	
Temperature (Degrees C):		18.5	18.6	18.6 18.9	17.1 17.2	16.8	
Turbidity (NTU):		5.3	5.1	4.5 2.7	3.3 2.6	6.5	
ORP (millivolts):		-122.4	-105.7	-98.6 -94.0	-113.7 -110.1	-103.0	
DO (mg/l) :		4.18	5.05	4.81 6.31	2.45 2.23	2.17	
Water Level (ft BTOC)		10.95	12.50	14.36 16.00	17.08 17.90	19.52	17.35

air in tubing

Starting Purge Time: 1210
Ending Purge Time: 1308

Average Purge Rate: 150 ml/min
Total Volume Purged: 7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 50
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-31
Date: 10/7/14 10/10
Time at Well Site: 735
Time of Sample Collection: 10/10/14 830
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.78 ft TOC
Depth to Water : 6.21 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Clear water. Not enough water to fill all sample bottles

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	10/10 Purge 7
Time:	745	750	755	800	805	810 820	830
Volume Removed (liters):	0.5	1.5	2.5	3.5	4	4.5	
pH:	6.86	7.03	7.08	7.10	7.12	7.14	
Specific Conductance (uS/cm):	1.02	1.03	1.03	1.02	1.02	1.02	
Temperature (Degrees C):	15.9	16.1	16.1	16.1	16.3	16.2	
Turbidity (NTU):	5.8	1.7	2.0	2.5	2.5	2.2	
ORP (millivolts):	82.4	-25.9	-62.8	-83.4	-84.8	-83.0	
DO (mg/l) :	0.38	0.24	0.49	1.10	1.96	2.78	
Water Level (ft BTOC)	8.01	10.29	11.41	13.22	13.97	14.65 Dry	15.84

Starting Purge Time: 742
Ending Purge Time: 820
Average Purge Rate: 150 ml/min
Total Volume Purged: 5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	1/2 Full
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-28
Date: 10/8/14 10/10
Time at Well Site: 1213
Time of Sample Collection: 10/10/14 @ 1040
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60, Sunny
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 17.67 ft TOC
Depth to Water: 4.25 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: 16.5 ft TOC

Appearance of Sample: Clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	10/10 Purge 7
Time:	1225	1235	1240 1245	1250 ~~1257~~	1300	1305	1040
Volume Removed (liters):	1	2	2.5 3	3.5	4.5		
pH:	6.71	6.74	6.78 6.80	6.81	6.72		
Specific Conductance (uS/cm):	1.47	1.46	1.46 1.45	1.45	1.46		
Temperature (Degrees C):	19.7	19.9	20.0 20.0	19.9	19.5		
Turbidity (NTU):	—	1.1	1.9 1.6	1.5	2.6		
ORP (millivolts):	-104.8	-122.9	-121.0 -114.4	-104.3	-100.6		
DO (mg/l):	0.27	0.18	0.21 0.41	0.58	0.35		
Water Level (ft BTOC)	6.98	10.99	12.21 13.05	15.2	15.55	Dry	14.45

Starting Purge Time: 1220
Ending Purge Time: 1305

Average Purge Rate: 160 ml/min
Total Volume Purged: 5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-46
Date: 10/9/14
Time at Well Site: 1130
Time of Sample Collection: 1235
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 55, cloudy
Wind: light
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 41.17 ft TOC
Depth to Water : 7.41 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2		Purge 3		Purge 4	Purge 5	Purge 6	Purge 7
Time:	1155	1200	1205	1226	1230	1235			
Volume Removed (liters):	2	2.5	3	5	6				
pH:	6.95	6.94	6.94	6.94	6.93	Sampled			
Specific Conductance (uS/cm):	0.77	0.77	0.77	0.77	0.77				
Temperature (Degrees C):	15.7	15.6	15.5	15.3	15.3				
Turbidity (NTU):	0.9	1.6	1.2	0.5	0.4				
ORP (millivolts):	-85.9	-80.2	-78.4	-80.8	-79.2				
DO (mg/l) :	0.19	0.20	0.17	0.15	0.14				
Water Level (ft BTOC)	8.53	8.65	8.78	9.05	9.09				

Starting Purge Time: 1138
Ending Purge Time: 1235

Average Purge Rate: 150 ml/min
Total Volume Purged: 7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

ER SAMPLE
TION FORM

Golder Associates

RIPTION

t Name: Electrolux/Jefferson/IA
t Number: 103-87305
Location: Jefferson, Iowa

EATHER CONDITIONS

Temperature: 50 cloudy
Wind: light
Precipitation: drizzle

SAMPLE DESCRIPTION

Sample ID: MW-47D
Date: 10/9/14
Time at Well Site: 930
Time of Sample Collection: 1000
Sampled by: ATK
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 42.02 ft TOC
Depth to Water : 7.50 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: Clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	930	940 945	950 955	1000			
Volume Removed (liters):	2	3 4	4.5 6	Sampled			
pH:	6.91	6.91 6.90	6.91 6.89				
Specific Conductance (uS/cm):	1.36	1.36 1.35	1.34 1.33				
Temperature (Degrees C):	17.0	16.9 16.9	16.8 16.8				
Turbidity (NTU):	-	1.5 0.4	0.6 0.9				
ORP (millivolts):	-119.5	-122.2 -122.2	-121.7 -122.9				
DO (mg/l) :	0.23	0.19 0.18	0.16 0.17				
Water Level (ft BTOC)	7.78	7.81 7.83	7.85 7.89				

Starting Purge Time: 915
Ending Purge Time: 1000

Average Purge Rate: 150 ml/min
Total Volume Purged: 7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-53
Date: 10/6/14 10/10/14
Time at Well Site: 1600
Time of Sample Collection: 10/10/14 @ 810
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60
Wind: moderate
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/a
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: Peri
Well Purged Dry?: (Yes) No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 11.84 ft TOC
Depth to Water : 3.21 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	10/10 Purge 6	Purge 7
Time:	1605	1612	1614	1623	1627	800	
Volume Removed (liters):	0.5	1.5	2	3			
pH:	6.86	6.96	6.99	7.04			
Specific Conductance (uS/cm):	0.820	0.766	0.768	0.762			
Temperature (Degrees C):	16.5	17.0	17.1	16.9	Dry		
Turbidity (NTU):	5.2	4.9	—	3.9			
ORP (millivolts):	11.5	-57.3	-63.9	-78.0			
DO (mg/l) :	0.33	1.43	1.7	1.08			
Water Level (ft BTOC)	4.13	6.80	8.24	9.97	11.3	7.68	

Starting Purge Time: 1605
Ending Purge Time: 1627
Average Purge Rate: 170 ml/min
Total Volume Purged: ~4 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

WATER SAMPLE
ECTION FORM

Golder Associates

SCRIPTION

ject Name: Electrolux/Jefferson/IA
ject Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-57
Date: 10/9/14
Time at Well Site: 1300
Time of Sample Collection: 1415
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60, Sunny
Wind: light
Precipitation: none, rain overnight

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

water in ~~than~~ round box on arrival from rain last night. pumped out.

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 35.40 ft TOC
Depth to Water : 6.24 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: slight effervescence, clear water

WELL PURGE CONTROL

	Purge 1		Purge 2	Purge 3		Purge 4		Purge 5	Purge 6	Purge 7
Time:	1335	1340	1345 1350	1355	1400	1405	1410	1415		
Volume Removed (liters):	1.5	2	3	4	5	5.5	6	Sampled		
pH:	7.01	6.97	6.96	6.93	6.94	6.92	6.93			
Specific Conductance (uS/cm):	0.81	0.80	0.80	0.82	0.80	0.82	0.79			
Temperature (Degrees C):	16.4	16.0	16.0	15.8	15.5	15.5	15.2			
Turbidity (NTU):	0.9	1.4	1.8	1.1	1.9	1.7	1.4			
ORP (millivolts):	-88.1	-86.5	-85.0	-80.3	-79.3	-77.4	-74.0			
DO (mg/l) :	0.25	0.26	0.22	0.17	0.19	0.17	0.16			
Water Level (ft BTOC)	6.95	7.06	7.18	7.31	7.36	7.40	7.51			

Starting Purge Time: 1320
Ending Purge Time: 1410

Average Purge Rate: 200 ml/min
Total Volume Purged: 6 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: Sunny, 60's
Wind: light
Precipitation: None

SAMPLE DESCRIPTION

Sample ID: MW-61
Date: 10/8/14
Time at Well Site: 925
Time of Sample Collection: 1030
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: N/a
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 38.38 ft TOC
Depth to Water : 3.8 ft TOC
Column of Water in Well: ft
Depth to Water after Purge: ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	940	945 950	955 1005	1010 1017	1020 1025	1030	
Volume Removed (liters):	1.5	2 2.5	3 4	5 6	6.5 7	Sampled	
pH:	7.29	7.30 7.31	7.31 7.30	7.27 7.23	7.23 7.26		
Specific Conductance (uS/cm):	0.81	0.82 0.82	0.82 0.82	0.82 0.82	0.82 0.82		
Temperature (Degrees C):	13.9	14.1 14.1	14.0 14.0	14.0 13.8	14.0 14.2		
Turbidity (NTU):	0.7	0.42 0.65	0.4 0.7	- 0.8	0.73 0.7		
ORP (millivolts):	-145.1	-135.0 -126	-104.9 -114.5	-107.1 -104.5	-100.4 -97.5		
DO (mg/l) :	0.21	0.21 0.21	0.22 0.19	0.17 0.18	0.20 0.20		
Water Level (ft BTOC)	7.40	8.09 9.41	9.98 11.46	12.75 14.13	14.55 15.1		

Starting Purge Time: 930
Ending Purge Time: 1025
Average Purge Rate: 150 ml/min
Total Volume Purged: 7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-62
Date: 10/7/14
Time at Well Site: 1400
Time of Sample Collection: 1515
Sampled by: ATK
Sampling Method: ~~Peristaltic~~/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 60's, sunny
Wind: moderate
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: N/A
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72 ft TOC
Depth to Water : 44.14 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water w/ very slight suspended particulates

WELL PURGE CONTROL

	Purge 1	Purge 2		Purge 3		Purge 4	Purge 5	Purge 6	Purge 7
Time:	1445	1450	1500	1505	1510	1515			
Volume Removed (liters):	2	4	8	9	11	Sampled			
pH:	6.83	6.84	6.86	6.86	6.88				
Specific Conductance (uS/cm):	0.69	0.70	0.69	0.69	0.69				
Temperature (Degrees C):	13.5	13.4	13.4	13.5	13.5				
Turbidity (NTU):	~~114.4~~ 9.3	9.4	9.0	9.3	9.2				
ORP (millivolts):	-114.4	-109.6	-111.9	-114.2	-115.3				
DO (mg/l) :	0.26	0.23	0.23	0.25	0.30				
Water Level (ft BTOC)	50.21	52.55	56.40	58.35	59.8				

Starting Purge Time: 1430
Ending Purge Time: ~~1510~~ 1510

Average Purge Rate: 300-400 ml/min
Total Volume Purged: 12 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: Sunny 60's
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-63
Date: 10/8/14
Time at Well Site: 1345
Time of Sample Collection: 1500
Sampled by: AJK
Sampling Method: ~~Peristaltic~~/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: n/a
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72.00 ft TOC
Depth to Water : 48.46 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water

WELL PURGE CONTROL

	Purge 1	Purge 2		Purge 3		Purge 4		Purge 5	Purge 6	Purge 7
Time:	1415	1420	1430	1440	1445	1450	1455			
Volume Removed (liters):	2	2.5	3.5	5	6	8	9			
pH:	6.92	6.91	6.86	6.85	6.82	6.81	6.80			
Specific Conductance (uS/cm):	1.09	1.09	1.08	1.08	1.07	1.07	1.07			
Temperature (Degrees C):	13.0	12.9	12.8	12.7	12.7	12.7	12.6			
Turbidity (NTU):	1.3	1.6	1.6	1.1	0.6	0.7	1.2			
ORP (millivolts):	-69.5	-66.1	-71.6	-67.0	-65.5	-64.8	-64.7			
DO (mg/l) :	0.31	0.28	0.20	0.15	0.15	0.14	0.13			
Water Level (ft BTOC)	49.40	50.3	50.95	51.54	51.75	51.90	52.10			

Starting Purge Time: 1400
Ending Purge Time: 1455

Average Purge Rate: 200-300 ml/min
Total Volume Purged: 9 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: Sunny 60
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-64
Date: 6/9/14
Time at Well Site: 1430
Time of Sample Collection: 1540
Sampled by: ATK
Sampling Method: Peristaltic/~~Bladder~~ Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 29 ft TOC
Depth to Water: 12.64 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: clear water w/ very slight particulates

WELL PURGE CONTROL

	Purge 1	Purge 2		Purge 3		Purge 4		Purge 5		Purge 6	Purge 7
Time:	1455	1500	1510	1515	1520	1525	1530	1535	1540		
Volume Removed (liters):	1	2	3	3.5	4.5	5	6	7	Sampled		
pH:	7.01	6.99	6.99	6.99	6.98	6.98	6.98	6.98			
Specific Conductance (uS/cm):	0.85	0.86	0.85	0.85	0.84	0.84	0.84	0.84			
Temperature (Degrees C):	14.5	14.9	15.3	15.1	15.1	15.1	14.9	14.8			
Turbidity (NTU):	10.6	12.4	1.0	7.0	3.2	4.6	3.8	4.4			
ORP (millivolts):	-95.3	-89.6	-91.8	-90.6	-89.8	-89.1	-87.8	-86.9			
DO (mg/l):	0.44	0.36	0.32	0.33	0.36	0.34	0.29	0.31			
Water Level (ft BTOC)	14.54	14.71	14.99	15.11	15.21	15.31	15.35	15.36			

Starting Purge Time: 1445
Ending Purge Time: 1540

Average Purge Rate: ~170 ml/min
Total Volume Purged: 7 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 50's cloudy
Wind: light
Precipitation: rain overnight

SAMPLE DESCRIPTION

Sample ID: MW-65
Date: 10/8/14
Time at Well Site: 1520
Time of Sample Collection: 10/9/14 @1115
Sampled by: ATK
Sampling Method: ~~Peristaltic~~/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: Dup-02 taken
Notes: @1620 pulled up bladder to find leak in connection w/ air line. fixed and continued purging

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72.89 ft TOC
Depth to Water: 27.72 ft TOC
Column of Water in Well: _____ ft
Depth to Water after Purge: _____ ft TOC

Appearance of Sample: Slightly turbid water . elevated DO due to air in well from bladder

WELL PURGE CONTROL

	10/8 Purge 1	Purge 2	Purge 3	10/9 Purge 4	Purge 5	Purge 6	Purge 7
Time:	1615	1645	1700	1040 1045	1100 1105	1110 1115	
Volume Removed (liters):	3	Continued	8	6 (today)	8 9	10 sampled	
pH:	7.40	elevated	7.25	7.04 7.04	7.03 7.03	7.02	
Specific Conductance (uS/cm):	0.93	DO,	0.93	0.93 0.93	0.94 0.94	0.94	
Temperature (Degrees C):	18.3	reset	17.2	16.4 16.3	16.3 16.3	16.3	
Turbidity (NTU):		bladder		22.2 21.7	20.8 19.4	18.6	
ORP (millivolts):	-67.8		-48.1	-67.0 -67.6	-67.9 -66.9	-67.2	
DO (mg/l):	10.3		10.45	6.4 6.28	6.10 5.99	5.96	
Water Level (ft BTOC)	29.8		37.42	41.45 42.49	43.65 44.59	45.40	

Starting Purge Time: 10/8 1545 | restarted 10/9 935 Average Purge Rate: 200 ml/min
Ending Purge Time: 1705 | 110 Total Volume Purged: ~20 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-65
Date: 12/18/14
Time at Well Site: 1010
Time of Sample Collection: 1155
Sampled by: A. Phillips
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: cloudy, 23°F
Wind: 0-5 mph
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: "Dup" collected @ 1215
Notes: checked meter calibration shortly after beginning purge because DO seemed low. Cal was OK so continues with purge/sampling.

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72.89 ft TOC
Depth to Water: 27.42 ft TOC
Column of Water in Well: 45.47 ft
Depth to Water after Purge: 33.83 ft TOC

Appearance of Sample: slightly turbid

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1115	1135	1140	1145	1150	1155	
Volume Removed (liters):	2.8	4.8	5.3	5.8	6.3	sampled	
pH:	7.22	7.18	7.19	7.18	7.20		
Specific Conductance (uS/cm):	0.943	0.946	0.953	0.951	0.951		
Temperature (Degrees C):	5.58	5.62	5.72	5.71	5.63		
Turbidity (NTU):	96.2	85.7	65.5	66.7	72.0		
ORP (millivolts):	-2	0	-1	-2	-4		
DO (mg/l) :	0.0	0.0	0.0	0.0	0.0		
Water Level (ft BTOC)	29.90	32.23	32.73	33.26	33.83		

Starting Purge Time: 1047
Ending Purge Time: 1155
Average Purge Rate: 100 ml/min
Total Volume Purged: 6.8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Alkalinities	TestAmerica			
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron, Magnesium, Calcium, Potassium, Sodium (6010C)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-47D
Date: 12/18/14
Time at Well Site: 1130
Time of Sample Collection: 1350
Sampled by: A. Phillips
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: cloudy, 28°F
Wind: 0-5 mph
Precipitation: none

FIELD DUPLICATE NOTES

Field Duplicate ID: NA
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 1.5 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 42.02 ft TOC
Depth to Water: 8.50 ft TOC
Column of Water in Well: 33.52 ft
Depth to Water after Purge: 8.95 ft TOC

Appearance of Sample: clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1320	1325	1330	1335	1340	1345	1350
Volume Removed (liters):	2	3	4	5	6	7	sampled
pH:	7.18	7.22	7.23	7.24	7.24	7.25	
Specific Conductance (uS/cm):	1.40	1.41	1.40	1.37	1.36	1.34	
Temperature (Degrees C):	11.56	12.17	12.34	12.60	12.52	12.47	
Turbidity (NTU):	4.0	3.0	1.6	1.7	1.7	1.6	
ORP (millivolts):	-21	-21	-21	-24	-24	-26	
DO (mg/l) :	0.0	0.0	0.0	0.0	0.0	0.0	
Water Level (ft BTOC)	8.84	8.89	8.89	8.92	8.93	8.95	

Starting Purge Time: 1310
Ending Purge Time: 1350
Average Purge Rate: 200 ml/min
Total Volume Purged: 8 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Alkalinities	TestAmerica			
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron, Magnesium, Calcium, Potassium, Sodium (6010C)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Alan Phillips (AP)
(Signature) AG Phillips

Your PO #:
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: jim_peace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO$_3$ (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H$_2$SO$_4$ Plastic (Yellow & White Label)	H$_2$SO$_4$ Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:Stormwater	Analyze For: 8260 Volatiles	Nitrate, Nitrite	Sulfate, Chloride	Alkalinities	Ca, Na, K, Mg, Mn, Fe	TOC								E-mail results	Send QC with report
Trip Blank			3	X					3												X														
MW-65	12/18/14	1155	6	X				1	3		1		1		X						X	X	X	X	X	X									
MW-47D	12/18/14	1350	6	X				1	3		1		1		X						X	X	X	X	X	X									
Dup	12/18/14	1215	6	X				1	3		1		1		X						X	X	X	X	X	X									

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Alan Phillips	12/18/14	1625	[illegible]	12/18/14	16:25			
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 32°F
Wind: ESE 16 mph
Precipitation:

SAMPLE DESCRIPTION

Sample ID: MW-47 D
Date: 3/24/15
Time at Well Site: 1130
Time of Sample Collection: 1225
Sampled by: AP
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID:
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: liters/ft
Column of Water in Well: feet
Volume of Water in Well: liters
Well Volumes to Purge:
Min. Volume to be Purged: liters
Method of Purging:
Well Purged Dry?: Yes ~~No~~

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 42.02 ft TOC
Depth to Water : 8.62 ft TOC
Column of Water in Well: 33.40 ft
Depth to Water after Purge: 9.21 ft TOC

Appearance of Sample: slightly turbid

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1140	1145	1155	1205	1215	1220	1225
Volume Removed (liters):	1	2	4	6	8	9	10
pH:	6.48	6.57	6.63	6.68	6.71	6.73	6.74
Specific Conductance (uS/cm):	1180	1270	1340	1350	1340	1320	1310
Temperature (Degrees C):	10.09	11.47	12.07	12.08	12.19	12.29	12.38
Turbidity (NTU):	33.4	29.3	20.0	14.9	20.0	20.4	20.9
ORP (millivolts):	+17	-21	-31	-36	-40	-41	-41
DO (mg/l) :	1.54	0.16	0.00	0.00	0.00	0.00	0.00
Water Level (ft BTOC)	8.98	9.04	9.11	9.13	9.16	9.21	9.21

Starting Purge Time: 1135
Ending Purge Time: 1225
Average Purge Rate: 200 ml/min
Total Volume Purged: 10 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Alkalinities	TestAmerica			
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron, Magnesium, Calcium, Potassium, Sodium (6010C)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-65
Date: 3/24/15
Time at Well Site: 0845
Time of Sample Collection: 1040
Sampled by: A. Phillips
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & ~~Silicon tubing~~

WEATHER CONDITIONS

Temperature: 30° F
Wind: ESE 13 mph
Precipitation:

FIELD DUPLICATE NOTES

Field Duplicate ID: Duplicate
Notes: Sampled at 1040
Duplicate sample collected at 1110

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: _____ liters/ft
Column of Water in Well: _____ feet
Volume of Water in Well: _____ liters
Well Volumes to Purge: _____
Min. Volume to be Purged: _____ liters
Method of Purging: _____
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72.89 ft TOC
Depth to Water : 27.93 ft TOC
Column of Water in Well: 44.96 ft
Depth to Water after Purge: 33.73 ft TOC

Appearance of Sample: slightly turbid

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	0930	0940	0950	1000	1015	1020 1030	1035 1040
Volume Removed (liters):	2	4	6	8	11	12 14	15 16
pH:	6.71	6.82	6.79	6.73	6.70	6.70 6.69	6.69 6.69
Specific Conductance (uS/cm):	1010	1010	999	995	986	995 999	1000 998
Temperature (Degrees C):	6.99	6.14	6.19	6.26	5.87	5.25 4.29	3.87 3.58
Turbidity (NTU):	504	99.8	46.6	41.0	31.4	24.4 25.8	27.9 27.2
ORP (millivolts):	-57	-54	-55	-59	-68	-69 -68	-67 -67
DO (mg/l) :	3.08	0.30	0.00	0.00	0.00	0.00 0.00	0.00 0.00
Water Level (ft BTOC)	28.11	28.38	29.40	30.25	31.40	31.69 32.19	33.22 33.73

Starting Purge Time: 0920
Ending Purge Time: 1040
Average Purge Rate: 200 ml/min
Total Volume Purged: 16 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Alkalinities	TestAmerica			
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron, Magnesium, Calcium, Potassium, Sodium (6010C)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: _____

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 60°
Wind: 0
Precipitation: 0

SAMPLE DESCRIPTION

Sample ID: MW-66
Date: 11-9-15
Time at Well Site: 1600
Time of Sample Collection: 1655
Sampled by: BA
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

FIELD DUPLICATE NOTES

Field Duplicate ID: None
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.617 liters/ft
Column of Water in Well: 42.65' feet
Volume of Water in Well: 26.15' liters
Well Volumes to Purge: —
Min. Volume to be Purged: — liters
Method of Purging: Low Flow
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 55' ft TOC
Depth to Water: 12.35' ft TOC
Column of Water in Well: 42.65 ft
Depth to Water after Purge: 17.70 ft TOC

Appearance of Sample:

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1620	1635	1645	1650	1655		
Volume Removed (liters):	1.2	2.4	3.2	3.6	4.0		
pH:	7.02	6.98	6.98	6.98	6.98		
Specific Conductance (uS/cm):	0.787	0.771	0.763	0.756	0.755		
Temperature (Degrees C):	12.71	12.36	12.27	12.17	12.13		
Turbidity (NTU):	214	136	96.7	75.5	75.7		
ORP (millivolts):	-34.0	-83.4	-90.8	-93.7	-92.3		
DO (mg/l) :	7.45	4.91	4.02	3.69	3.46		
Water Level (ft BTOC)	14.60	16.35	17.03	17.45	17.70		

Starting Purge Time: 1605
Ending Purge Time: 1655

Average Purge Rate: 80 ml/min
Total Volume Purged: 4.0 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: Brady Abernathy

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305
Location: Jefferson, Iowa

SAMPLE DESCRIPTION

Sample ID: MW-67
Date: 11-5-2015
Time at Well Site: 1420
Time of Sample Collection: 1555
Sampled by: BA
Sampling Method: Peristaltic/Bladder Pump
Type of Sampling Equipment: Poly & Silicon tubing

WEATHER CONDITIONS

Temperature: 62°
Wind: 0
Precipitation: 0

FIELD DUPLICATE NOTES

Field Duplicate ID: Dup
Notes:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.617 liters/ft
Column of Water in Well: 42.05 feet
Volume of Water in Well: 259.45 liters
Well Volumes to Purge: —
Min. Volume to be Purged: — liters
Method of Purging: Low Flow
Well Purged Dry?: Yes (No)

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: ~~After~~ 97 ft TOC
Depth to Water: 54.95 ft TOC
Column of Water in Well: 42.05 ft
Depth to Water after Purge: 54.80 ft TOC

Appearance of Sample:

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6	Purge 7
Time:	1455	1510	1525	1540	1555		
Volume Removed (liters):	1.6	2.8	4.0	5.2	6.4		
pH:	7.10	7.11	7.11	7.11	7.11		
Specific Conductance (uS/cm):	1.009	0.907	0.896	0.893	0.891		
Temperature (Degrees C):	14.73	14.08	13.45	12.99	12.56		
Turbidity (NTU):	~~Alm~~ 121	99.7	56.20	30.2			
ORP (millivolts):	-145.2	-271.4	-252.2	-270.2	-281.5		
DO (mg/l) :	4.50	4.35	4.55	4.72	4.71		
Water Level (ft BTOC)	54.80	54.80	54.80	54.80	54.80		

Starting Purge Time: 1435
Ending Purge Time: 1555

Average Purge Rate: ~~100~~ 80 ml/min
Total Volume Purged: 6.4 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Laboratory	Container Number, Type and Size	Preservative	Note:
Volatiles (8260C)	Test America	(3) 40 ml vials	HCL	
Methane/Ethane/Ethene (AM20GAX)	Pace Analtical	(2) 40 ml vials	Na3PO4	
Nitrate/Nitrite (353.2), Chloride/Sulfate (300.0)	Test America	(1) 500 mL plastic	None	
Manganese, Iron (6010B)	Test America	(1) 250 mL plastic	HNO3	
Total Organic Carbon (5310 B-2011)	Test America	(1) 250 mL plastic	H2SO4	

REMARKS: 2" - 0.617 liters/ft 1" - 0.053 liters/ft
1.5" - 0.347 liters/ft

Field Team Leader: B. Abernathy

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305.01
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 72°F
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-66
Date: 7/1/16
Time at Well Site: 1020
Time of Sample Collection: 1153 (duplicate at 12:00)
Sampled by: Alan Phillips
Sampling Method: Bladder Pump
Type of Sampling Equipment: 1/4-inch x 1/4-inch Poly tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:

Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 43.81 feet
Volume of Water in Well: [redacted] gallons 7.14
Well Volumes to Purge: –
Min. Volume to be Purged: – gallons
Method of Purging: low flow
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 57.36 ft TOC
Depth to Water : 13.55 ft TOC
Column of Water in Well: 43.81 ft
Depth to Water after Purge: 17.13 ft TOC

Appearance of Sample: clear

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6		
Time:	1102	1107	1117	1127	1137	1142	1147	1152
Volume Removed (liters):	1	2	4	6	8	9	10	11
pH:	5.51	5.74	6.08	6.49	6.59	6.73	6.77	6.79
Specific Conductance (uS/cm):	848	854	851	849	845	847	844	845
Temperature (Degrees C):	14.81	13.96	13.66	13.66	13.69	13.64	13.89	13.91
Turbidity (NTU):	–	–	–	–	–	–	–	–
Eh (millivolts):	+205.2	+177.3	+128.3	+94.3	+80.8	+68.2	+64.2	+62.7
DO (mg/l) :	2.20	0.85	0.51	0.53	0.59	0.59	0.57	0.58

Starting Purge Time: 1057
Ending Purge Time: 1152
Average Purge Rate: 200 ml/min
Total Volume Purged: 11 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft
Duplicate sample collected

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305.01
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 75°F
Wind: light
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-67
Date: 7/1/16
Time at Well Site: 1220
Time of Sample Collection: 1323
Sampled by: Alan Phillips
Sampling Method: Bladder Pump
Type of Sampling Equipment: 1/4-inch x 1/4-inch Poly tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:

Lot Number:
Analyses:

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 99.54 ft TOC
Depth to Water : 53.89 ft TOC
Column of Water in Well: 45.65 ft
Depth to Water after Purge: 54.02 ft TOC

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 45.65 feet
Volume of Water in Well: 7.44 gallons
Well Volumes to Purge: –
Min. Volume to be Purged: – gallons
Method of Purging: low flow
Well Purged Dry?: Yes No

Appearance of Sample:

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1237	1247	1257	1307	1317	1322
Volume Removed (liters):	2	4	6	8	10	11
pH:	6.81	6.52	6.75	6.82	6.88	6.88
Specific Conductance (uS/cm):	877	911	947	957	962	960
Temperature (Degrees C):	13.97	13.94	13.81	13.74	13.73	13.81
Turbidity (NTU):	–	–	–	–	–	–
Eh (millivolts):	+24.3	+38.8	+19.2	+8.6	+3.3	+4.4
DO (mg/l) :	2.14	0.65	0.56	0.48	0.47	0.47

Starting Purge Time: 1227
Ending Purge Time: 1322
Average Purge Rate: 200 ml/min
Total Volume Purged: 11 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

GROUNDWATER SAMPLE COLLECTION FORM

Golder Associates

SITE DESCRIPTION

Project Name: Electrolux/Jefferson/IA
Project Number: 103-87305.01
Location: Jefferson, Iowa

WEATHER CONDITIONS

Temperature: 74°F
Wind: 5-10 mph from NE
Precipitation: none

SAMPLE DESCRIPTION

Sample ID: MW-65
Date: 7/1/16
Time at Well Site: 1350
Time of Sample Collection: 1452
Sampled by: Alan Phillips
Sampling Method: Bladder Pump
Type of Sampling Equipment: 1/4-inch x 1/4-inch Poly tubing

FIELD BLANK NOTES

Field Blank Name:
Field Blank /Rinse Water type:
Lot Number:
Analyses:

VOLUME OF WATER TO BE PURGED

Casing Inside Diameter: 2 inches
Casing Volume: 0.163 gal/ft
Column of Water in Well: 47.36 feet
Volume of Water in Well: 7.72 gallons
Well Volumes to Purge: 5
Min. Volume to be Purged: — gallons
Method of Purging: low flow
Well Purged Dry?: Yes No

COLUMN OF WATER IN WELL BEFORE PURGE

Total Depth of Well: 72.89 ft TOC
Depth to Water : 25.53 ft TOC
Column of Water in Well: 47.36 ft
Depth to Water after Purge: 27.88 ft TOC

Appearance of Sample:

WELL PURGE CONTROL

	Purge 1	Purge 2	Purge 3	Purge 4	Purge 5	Purge 6
Time:	1411	1421	1431	1441	1451	
Volume Removed (liters):	1	2	3	4	5	
pH:	6.90	6.89	6.88	6.88	6.87	
Specific Conductance (uS/cm):	955	955	954	955	955	
Temperature (Degrees C):	17.32	19.53	19.60	19.78	19.71	
Turbidity (NTU):	—	—	—	—	—	
Eh (millivolts):	-29.1	-31.6	-30.2	-31.7	-32.8	
DO (mg/l) :	2.38	0.69	0.71	0.68	0.63	

Starting Purge Time: 1401
Ending Purge Time: 1451
Average Purge Rate: 100 ml/min
Total Volume Purged: 5 liters

SAMPLE CONTAINERS REQUIRED

Analysis	Container Number, Type and Size	Filter	Preservative and Source
Volatiles (8260C)	(2) 40 ml vials	NA	HCL

Chain of Custody #:
Shuttle ID:
Trip Blank ID:
Lab Name:
Air Bill #:

REMARKS: 2" - 0.163 gal/ft 1" - 0.014 gal/ft
1.5" - 0.0918 gal/ft

Field Team Leader:

APPENDIX I

GROUNDWATER ANALYTICAL REPORTS

Summary of Groundwater Lab Reports

Lab Name	Lab report number	Report Date	Sample matrix
TestAmerica	CUD1240	May 2011	GW
TestAmerica	CVE1748	May 2012	GW
TestAmerica	CVE1585	May 2012	GW
TestAmerica	CVE1789	May 2012	GW
TestAmerica	CVL0713	Dec 2012	GW
TestAmerica	CVL0764	Dec 2012	GW
TestAmerica	CVL0908	Dec 2012	GW
TestAmerica	CVL0964	Dec 2012	GW
TestAmerica	CVL0768	Jan 2013	NAPL
TestAmerica	J4969	Mar 2013	GW
Microseeps	10340	Oct 2013	GW
Microseeps	10364	Oct 2013	GW
TestAmerica	J17470	Oct 2013	GW
TestAmerica	J17673	Oct 2013	GW
TestAmerica	J17594	Nov 2013	GW
TestAmerica	J29158	Apr 2014	GW
TestAmerica	J29313	May 2014	GW
TestAmerica	J29420	May 2014	GW
TestAmerica	J29499	May 2014	GW
Microseeps	12016	May 2014	GW
TestAmerica	J34864	Jul 2014	GW
TestAmerica	J35011	Jul 2014	GW
TestAmerica	J35091	Jul 2014	GW
TestAmerica	J35191	Jul 2014	GW
Microseeps	12784	Jul 2014	GW
TestAmerica	J40818	Oct 2014	GW
TestAmerica	J40985	Oct 2014	GW
TestAmerica	J41134	Oct 2014	GW
TestAmerica	J41248	Oct 2014	GW
Microseeps	13619	Oct 2014	GW
TestAmerica	J46049	Dec 2014	GW
TestAmerica	J51636	Apr 2015	GW
TestAmerica	J68678	Nov 2015	GW
TestAmerica	J80479	Jul 2016	GW

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-29158-1
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
5/2/2014 1:13:51 PM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-29158-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-29158-1

Comments
No additional comments.

Receipt
The samples were received on 4/23/2014 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 46054 recovered outside the control limit for Vinyl chloride (-27 %D) 1,2,4-Trichlorobenzene (-25.6 %D) Chloroethene and Trichlorofluoromethane (-24.9 %dD). The LCS associated with this CCV passed using CCV critria for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-46054/3).

Method(s) 8260C: The laboratory control sample (LCS) for batch 46054 recovered outside control limits for the following analyte : 1,1,1,2-Tetrachloroethane. The analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-29158-1	MW-24	Ground Water	04/22/14 13:45	04/23/14 09:25
310-29158-2	MW-62	Ground Water	04/22/14 14:40	04/23/14 09:25
310-29158-3	MW-65	Ground Water	04/22/14 16:45	04/23/14 09:25
310-29158-4	Trip Blank	Water	04/22/14 00:00	04/23/14 09:25

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Client Sample ID: MW-24 — Lab Sample ID: 310-29158-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	101		5.00		mg/L	5		9056A	Total/NA
Chloride	30.2		5.00		mg/L	5		9056A	Total/NA
Manganese	0.0982		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.55		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.120		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-62 — Lab Sample ID: 310-29158-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	1.05		1.00		ug/L	1		8260C	Total/NA
Sulfate	32.7		1.00		mg/L	1		9056A	Total/NA
Chloride	3.52		1.00		mg/L	1		9056A	Total/NA
Iron	1.50		0.100		mg/L	1		6010C	Total/NA
Manganese	0.476		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.71		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-65 — Lab Sample ID: 310-29158-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.27		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	2.42		1.00		ug/L	1		8260C	Total/NA
Sulfate	2.16		1.00		mg/L	1		9056A	Total/NA
Chloride	3.18		1.00		mg/L	1		9056A	Total/NA
Iron	1.76		0.100		mg/L	1		6010C	Total/NA
Manganese	0.378		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	4.10		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-29158-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Client Sample ID: MW-24
Date Collected: 04/22/14 13:45
Date Received: 04/23/14 09:25

Lab Sample ID: 310-29158-1
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/25/14 00:37	1
Benzene	<0.500		0.500		ug/L			04/25/14 00:37	1
Bromobenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
Bromochloromethane	<5.00		5.00		ug/L			04/25/14 00:37	1
Bromodichloromethane	<1.00		1.00		ug/L			04/25/14 00:37	1
Bromoform	<5.00		5.00		ug/L			04/25/14 00:37	1
Bromomethane	<4.00		4.00		ug/L			04/25/14 00:37	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/25/14 00:37	1
n-Butylbenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
Carbon disulfide	<1.00		1.00		ug/L			04/25/14 00:37	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/25/14 00:37	1
Chlorobenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/25/14 00:37	1
Chloroethane	<4.00		4.00		ug/L			04/25/14 00:37	1
Chloroform	<1.00		1.00		ug/L			04/25/14 00:37	1
Chloromethane	<3.00		3.00		ug/L			04/25/14 00:37	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/25/14 00:37	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/25/14 00:37	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/25/14 00:37	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/25/14 00:37	1
Dibromomethane	<1.00		1.00		ug/L			04/25/14 00:37	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/25/14 00:37	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/25/14 00:37	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/25/14 00:37	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/25/14 00:37	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/25/14 00:37	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/25/14 00:37	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/25/14 00:37	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/25/14 00:37	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/25/14 00:37	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/25/14 00:37	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/25/14 00:37	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/25/14 00:37	1
Ethylbenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/25/14 00:37	1
Hexane	<1.00		1.00		ug/L			04/25/14 00:37	1
Isopropylbenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/25/14 00:37	1
Methylene Chloride	<5.00		5.00		ug/L			04/25/14 00:37	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/25/14 00:37	1
Naphthalene	<5.00		5.00		ug/L			04/25/14 00:37	1
N-Propylbenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
Styrene	<1.00		1.00		ug/L			04/25/14 00:37	1
1,1,1,2-Tetrachloroethane	<1.00	*	1.00		ug/L			04/25/14 00:37	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Client Sample ID: MW-24

Date Collected: 04/22/14 13:45
Date Received: 04/23/14 09:25

Lab Sample ID: 310-29158-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/25/14 00:37	1
Tetrachloroethene	<1.00		1.00		ug/L			04/25/14 00:37	1
Toluene	<1.00		1.00		ug/L			04/25/14 00:37	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/25/14 00:37	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/25/14 00:37	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/25/14 00:37	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/25/14 00:37	1
Trichloroethene	<1.00		1.00		ug/L			04/25/14 00:37	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/25/14 00:37	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/25/14 00:37	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/25/14 00:37	1
Vinyl chloride	<1.00		1.00		ug/L			04/25/14 00:37	1
Xylenes, Total	<3.00		3.00		ug/L			04/25/14 00:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*75 - 110*		*04/25/14 00:37*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 120*		*04/25/14 00:37*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*04/25/14 00:37*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**101**		5.00		mg/L			04/24/14 09:25	5
Chloride	**30.2**		5.00		mg/L			04/24/14 09:25	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		04/24/14 07:52	04/24/14 18:37	1
Manganese	**0.0982**		0.0100		mg/L		04/24/14 07:52	04/24/14 18:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.55**		1.00		mg/L			04/28/14 20:08	1
Nitrite as N	<0.100		0.100		mg/L			04/23/14 17:31	1
Nitrate as N	**0.120**		0.100		mg/L			04/23/14 17:42	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Client Sample ID: MW-62
Date Collected: 04/22/14 14:40
Date Received: 04/23/14 09:25

Lab Sample ID: 310-29158-2
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/25/14 01:03	1
Benzene	<0.500		0.500		ug/L			04/25/14 01:03	1
Bromobenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
Bromochloromethane	<5.00		5.00		ug/L			04/25/14 01:03	1
Bromodichloromethane	<1.00		1.00		ug/L			04/25/14 01:03	1
Bromoform	<5.00		5.00		ug/L			04/25/14 01:03	1
Bromomethane	<4.00		4.00		ug/L			04/25/14 01:03	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/25/14 01:03	1
n-Butylbenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
Carbon disulfide	**1.05**		1.00		ug/L			04/25/14 01:03	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/25/14 01:03	1
Chlorobenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/25/14 01:03	1
Chloroethane	<4.00		4.00		ug/L			04/25/14 01:03	1
Chloroform	<1.00		1.00		ug/L			04/25/14 01:03	1
Chloromethane	<3.00		3.00		ug/L			04/25/14 01:03	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/25/14 01:03	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/25/14 01:03	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/25/14 01:03	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/25/14 01:03	1
Dibromomethane	<1.00		1.00		ug/L			04/25/14 01:03	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/25/14 01:03	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/25/14 01:03	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/25/14 01:03	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/25/14 01:03	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/25/14 01:03	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/25/14 01:03	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/25/14 01:03	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/25/14 01:03	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/25/14 01:03	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/25/14 01:03	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/25/14 01:03	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/25/14 01:03	1
Ethylbenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/25/14 01:03	1
Hexane	<1.00		1.00		ug/L			04/25/14 01:03	1
Isopropylbenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/25/14 01:03	1
Methylene Chloride	<5.00		5.00		ug/L			04/25/14 01:03	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/25/14 01:03	1
Naphthalene	<5.00		5.00		ug/L			04/25/14 01:03	1
N-Propylbenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
Styrene	<1.00		1.00		ug/L			04/25/14 01:03	1
1,1,1,2-Tetrachloroethane	<1.00	*	1.00		ug/L			04/25/14 01:03	1

Client Sample ID: MW-62

Lab Sample ID: 310-29158-2

Date Collected: 04/22/14 14:40

Matrix: Ground Water

Date Received: 04/23/14 09:25

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/25/14 01:03	1
Tetrachloroethene	<1.00		1.00		ug/L			04/25/14 01:03	1
Toluene	<1.00		1.00		ug/L			04/25/14 01:03	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/25/14 01:03	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/25/14 01:03	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/25/14 01:03	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/25/14 01:03	1
Trichloroethene	<1.00		1.00		ug/L			04/25/14 01:03	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/25/14 01:03	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/25/14 01:03	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/25/14 01:03	1
Vinyl chloride	<1.00		1.00		ug/L			04/25/14 01:03	1
Xylenes, Total	<3.00		3.00		ug/L			04/25/14 01:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*75 - 110*		*04/25/14 01:03*	*1*
Dibromofluoromethane (Surr)	*118*		*75 - 120*		*04/25/14 01:03*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/25/14 01:03*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**32.7**		1.00		mg/L			04/24/14 16:51	1
Chloride	**3.52**		1.00		mg/L			04/24/14 16:51	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.50**		0.100		mg/L		04/24/14 07:52	04/24/14 18:39	1
Manganese	**0.476**		0.0100		mg/L		04/24/14 07:52	04/24/14 18:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.71**		1.00		mg/L			04/28/14 23:29	1
Nitrite as N	<0.100		0.100		mg/L			04/23/14 17:31	1
Nitrate as N	<0.100		0.100		mg/L			04/23/14 17:51	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Client Sample ID: MW-65

Date Collected: 04/22/14 16:45
Date Received: 04/23/14 09:25

Lab Sample ID: 310-29158-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/25/14 01:28	1
Benzene	<0.500		0.500		ug/L			04/25/14 01:28	1
Bromobenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
Bromochloromethane	<5.00		5.00		ug/L			04/25/14 01:28	1
Bromodichloromethane	<1.00		1.00		ug/L			04/25/14 01:28	1
Bromoform	<5.00		5.00		ug/L			04/25/14 01:28	1
Bromomethane	<4.00		4.00		ug/L			04/25/14 01:28	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/25/14 01:28	1
n-Butylbenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
Carbon disulfide	<1.00		1.00		ug/L			04/25/14 01:28	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/25/14 01:28	1
Chlorobenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/25/14 01:28	1
Chloroethane	<4.00		4.00		ug/L			04/25/14 01:28	1
Chloroform	<1.00		1.00		ug/L			04/25/14 01:28	1
Chloromethane	<3.00		3.00		ug/L			04/25/14 01:28	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/25/14 01:28	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/25/14 01:28	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/25/14 01:28	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/25/14 01:28	1
Dibromomethane	<1.00		1.00		ug/L			04/25/14 01:28	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/25/14 01:28	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/25/14 01:28	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/25/14 01:28	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/25/14 01:28	1
cis-1,2-Dichloroethene	**1.27**		1.00		ug/L			04/25/14 01:28	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/25/14 01:28	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/25/14 01:28	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/25/14 01:28	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/25/14 01:28	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/25/14 01:28	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/25/14 01:28	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/25/14 01:28	1
Ethylbenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/25/14 01:28	1
Hexane	<1.00		1.00		ug/L			04/25/14 01:28	1
Isopropylbenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/25/14 01:28	1
Methylene Chloride	<5.00		5.00		ug/L			04/25/14 01:28	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/25/14 01:28	1
Naphthalene	<5.00		5.00		ug/L			04/25/14 01:28	1
N-Propylbenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
Styrene	<1.00		1.00		ug/L			04/25/14 01:28	1
1,1,1,2-Tetrachloroethane	<1.00	*	1.00		ug/L			04/25/14 01:28	1

Client Sample ID: MW-65

Lab Sample ID: 310-29158-3

Date Collected: 04/22/14 16:45

Matrix: Ground Water

Date Received: 04/23/14 09:25

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/25/14 01:28	1
Tetrachloroethene	<1.00		1.00		ug/L			04/25/14 01:28	1
Toluene	<1.00		1.00		ug/L			04/25/14 01:28	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/25/14 01:28	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/25/14 01:28	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/25/14 01:28	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/25/14 01:28	1
Trichloroethene	**2.42**		1.00		ug/L			04/25/14 01:28	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/25/14 01:28	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/25/14 01:28	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/25/14 01:28	1
Vinyl chloride	<1.00		1.00		ug/L			04/25/14 01:28	1
Xylenes, Total	<3.00		3.00		ug/L			04/25/14 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 110*		*04/25/14 01:28*	*1*
Dibromofluoromethane (Surr)	*117*		*75 - 120*		*04/25/14 01:28*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/25/14 01:28*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2.16**		1.00		mg/L			04/24/14 16:52	1
Chloride	**3.18**		1.00		mg/L			04/24/14 16:52	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.76**		0.100		mg/L		04/24/14 07:52	04/24/14 18:41	1
Manganese	**0.378**		0.0100		mg/L		04/24/14 07:52	04/24/14 18:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.10**		1.00		mg/L			04/28/14 17:24	1
Nitrite as N	<0.100		0.100		mg/L			04/23/14 17:31	1
Nitrate as N	<0.100		0.100		mg/L			04/23/14 17:54	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-29158-4

Date Collected: 04/22/14 00:00

Matrix: Water

Date Received: 04/23/14 09:25

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/25/14 01:53	1
Benzene	<0.500		0.500		ug/L			04/25/14 01:53	1
Bromobenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
Bromochloromethane	<5.00		5.00		ug/L			04/25/14 01:53	1
Bromodichloromethane	<1.00		1.00		ug/L			04/25/14 01:53	1
Bromoform	<5.00		5.00		ug/L			04/25/14 01:53	1
Bromomethane	<4.00		4.00		ug/L			04/25/14 01:53	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/25/14 01:53	1
n-Butylbenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
Carbon disulfide	<1.00		1.00		ug/L			04/25/14 01:53	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/25/14 01:53	1
Chlorobenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/25/14 01:53	1
Chloroethane	<4.00		4.00		ug/L			04/25/14 01:53	1
Chloroform	<1.00		1.00		ug/L			04/25/14 01:53	1
Chloromethane	<3.00		3.00		ug/L			04/25/14 01:53	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/25/14 01:53	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/25/14 01:53	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/25/14 01:53	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/25/14 01:53	1
Dibromomethane	<1.00		1.00		ug/L			04/25/14 01:53	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/25/14 01:53	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/25/14 01:53	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/25/14 01:53	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/25/14 01:53	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/25/14 01:53	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/25/14 01:53	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/25/14 01:53	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/25/14 01:53	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/25/14 01:53	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/25/14 01:53	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/25/14 01:53	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/25/14 01:53	1
Ethylbenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/25/14 01:53	1
Hexane	<1.00		1.00		ug/L			04/25/14 01:53	1
Isopropylbenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/25/14 01:53	1
Methylene Chloride	<5.00		5.00		ug/L			04/25/14 01:53	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/25/14 01:53	1
Naphthalene	<5.00		5.00		ug/L			04/25/14 01:53	1
N-Propylbenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
Styrene	<1.00		1.00		ug/L			04/25/14 01:53	1
1,1,1,2-Tetrachloroethane	<1.00	*	1.00		ug/L			04/25/14 01:53	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-29158-4

Date Collected: 04/22/14 00:00

Matrix: Water

Date Received: 04/23/14 09:25

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/25/14 01:53	1
Tetrachloroethene	<1.00		1.00		ug/L			04/25/14 01:53	1
Toluene	<1.00		1.00		ug/L			04/25/14 01:53	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/25/14 01:53	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/25/14 01:53	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/25/14 01:53	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/25/14 01:53	1
Trichloroethene	<1.00		1.00		ug/L			04/25/14 01:53	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/25/14 01:53	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/25/14 01:53	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/25/14 01:53	1
Vinyl chloride	<1.00		1.00		ug/L			04/25/14 01:53	1
Xylenes, Total	<3.00		3.00		ug/L			04/25/14 01:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 110*		*04/25/14 01:53*	*1*
Dibromofluoromethane (Surr)	*119*		*75 - 120*		*04/25/14 01:53*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*04/25/14 01:53*	*1*

Definitions/Glossary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-110)	(75-120)	(80-120)
310-29158-1	MW-24	93	94	93
310-29158-2	MW-62	106	118	96
310-29158-3	MW-65	101	117	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-110)	(75-120)	(80-120)
310-29158-4	Trip Blank	98	119	92
LCS 310-46054/4	Lab Control Sample	105	108	101
MB 310-46054/7	Method Blank	103	118	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-46054/7
Matrix: Water
Analysis Batch: 46054

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/24/14 19:58	1
Benzene	<0.500		0.500		ug/L			04/24/14 19:58	1
Bromobenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
Bromochloromethane	<5.00		5.00		ug/L			04/24/14 19:58	1
Bromodichloromethane	<1.00		1.00		ug/L			04/24/14 19:58	1
Bromoform	<5.00		5.00		ug/L			04/24/14 19:58	1
Bromomethane	<4.00		4.00		ug/L			04/24/14 19:58	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/24/14 19:58	1
n-Butylbenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
Carbon disulfide	<1.00		1.00		ug/L			04/24/14 19:58	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/24/14 19:58	1
Chlorobenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/24/14 19:58	1
Chloroethane	<4.00		4.00		ug/L			04/24/14 19:58	1
Chloroform	<1.00		1.00		ug/L			04/24/14 19:58	1
Chloromethane	<3.00		3.00		ug/L			04/24/14 19:58	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/24/14 19:58	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/24/14 19:58	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/24/14 19:58	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/24/14 19:58	1
Dibromomethane	<1.00		1.00		ug/L			04/24/14 19:58	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/24/14 19:58	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/24/14 19:58	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/24/14 19:58	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/24/14 19:58	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/24/14 19:58	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/24/14 19:58	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/24/14 19:58	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/24/14 19:58	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/24/14 19:58	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/24/14 19:58	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/24/14 19:58	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/24/14 19:58	1
Ethylbenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/24/14 19:58	1
Hexane	<1.00		1.00		ug/L			04/24/14 19:58	1
Isopropylbenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/24/14 19:58	1
Methylene Chloride	<5.00		5.00		ug/L			04/24/14 19:58	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/24/14 19:58	1
Naphthalene	<5.00		5.00		ug/L			04/24/14 19:58	1
N-Propylbenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
Styrene	<1.00		1.00		ug/L			04/24/14 19:58	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-46054/7
Matrix: Water
Analysis Batch: 46054

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/24/14 19:58	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/24/14 19:58	1
Tetrachloroethene	<1.00		1.00		ug/L			04/24/14 19:58	1
Toluene	<1.00		1.00		ug/L			04/24/14 19:58	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/24/14 19:58	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/24/14 19:58	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/24/14 19:58	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/24/14 19:58	1
Trichloroethene	<1.00		1.00		ug/L			04/24/14 19:58	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/24/14 19:58	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/24/14 19:58	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/24/14 19:58	1
Vinyl chloride	<1.00		1.00		ug/L			04/24/14 19:58	1
Xylenes, Total	<3.00		3.00		ug/L			04/24/14 19:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 110*		*04/24/14 19:58*	*1*
Dibromofluoromethane (Surr)	*118*		*75 - 120*		*04/24/14 19:58*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/24/14 19:58*	*1*

Lab Sample ID: LCS 310-46054/4
Matrix: Water
Analysis Batch: 46054

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	51.58		ug/L		129	60 - 150
Benzene	20.0	23.34		ug/L		117	70 - 130
Bromobenzene	20.0	22.73		ug/L		114	75 - 130
Bromochloromethane	20.0	25.43		ug/L		127	65 - 145
Bromodichloromethane	20.0	23.24		ug/L		116	60 - 130
Bromoform	20.0	21.50		ug/L		108	30 - 125
Bromomethane	20.0	19.43		ug/L		97	35 - 130
2-Butanone (MEK)	40.0	53.64		ug/L		134	55 - 140
n-Butylbenzene	20.0	20.96		ug/L		105	55 - 135
sec-Butylbenzene	20.0	23.09		ug/L		115	65 - 135
tert-Butylbenzene	20.0	23.33		ug/L		117	60 - 135
Carbon disulfide	20.0	23.70		ug/L		118	40 - 130
Carbon tetrachloride	20.0	23.75		ug/L		119	55 - 130
Chlorobenzene	20.0	23.04		ug/L		115	75 - 125
Chlorodibromomethane	20.0	24.12		ug/L		121	45 - 125
Chloroethane	20.0	19.84		ug/L		99	55 - 135
Chloroform	20.0	23.92		ug/L		120	70 - 125
Chloromethane	20.0	18.09		ug/L		90	30 - 125
2-Chlorotoluene	20.0	23.15		ug/L		116	75 - 135
4-Chlorotoluene	20.0	22.59		ug/L		113	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	24.88		ug/L		124	35 - 130
1,2-Dibromoethane (EDB)	20.0	23.77		ug/L		119	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-46054/4
Matrix: Water
Analysis Batch: 46054

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	24.16		ug/L		121	75 - 130
1,2-Dichlorobenzene	20.0	22.15		ug/L		111	65 - 135
1,3-Dichlorobenzene	20.0	21.19		ug/L		106	70 - 130
1,4-Dichlorobenzene	20.0	22.82		ug/L		114	60 - 140
Dichlorodifluoromethane	20.0	17.90		ug/L		90	35 - 130
1,1-Dichloroethane	20.0	25.56		ug/L		128	60 - 130
1,2-Dichloroethane	20.0	25.99		ug/L		130	65 - 140
1,1-Dichloroethene	20.0	23.33		ug/L		117	60 - 135
cis-1,2-Dichloroethene	20.0	25.05		ug/L		125	70 - 135
trans-1,2-Dichloroethene	20.0	26.28		ug/L		131	60 - 145
1,2-Dichloropropane	20.0	23.65		ug/L		118	65 - 130
1,3-Dichloropropane	20.0	23.80		ug/L		119	75 - 125
2,2-Dichloropropane	20.0	23.24		ug/L		116	25 - 120
1,1-Dichloropropene	20.0	23.10		ug/L		116	60 - 140
cis-1,3-Dichloropropene	20.0	22.59		ug/L		113	30 - 120
trans-1,3-Dichloropropene	20.0	23.54		ug/L		118	35 - 120
Ethylbenzene	20.0	24.08		ug/L		120	70 - 130
Hexachlorobutadiene	20.0	23.67		ug/L		118	60 - 135
Hexane	20.0	23.18		ug/L		116	40 - 135
Isopropylbenzene	20.0	23.85		ug/L		119	70 - 125
p-Isopropyltoluene	20.0	21.63		ug/L		108	60 - 140
Methylene Chloride	20.0	21.76		ug/L		109	55 - 145
Methyl tert-butyl ether	20.0	24.94		ug/L		125	50 - 135
Naphthalene	20.0	18.64		ug/L		93	40 - 135
N-Propylbenzene	20.0	23.40		ug/L		117	70 - 135
Styrene	20.0	23.20		ug/L		116	70 - 130
1,1,1,2-Tetrachloroethane	20.0	24.13	*	ug/L		121	65 - 120
1,1,2,2-Tetrachloroethane	20.0	23.44		ug/L		117	65 - 130
Tetrachloroethene	20.0	22.94		ug/L		115	70 - 135
Toluene	20.0	22.45		ug/L		112	70 - 135
1,2,3-Trichlorobenzene	20.0	19.48		ug/L		97	55 - 130
1,2,4-Trichlorobenzene	20.0	17.74		ug/L		89	40 - 135
1,1,1-Trichloroethane	20.0	24.35		ug/L		122	60 - 125
1,1,2-Trichloroethane	20.0	23.89		ug/L		119	75 - 125
Trichloroethene	20.0	23.72		ug/L		119	70 - 130
Trichlorofluoromethane	20.0	20.23		ug/L		101	55 - 145
1,2,3-Trichloropropane	20.0	23.14		ug/L		116	60 - 150
1,2,4-Trimethylbenzene	20.0	20.90		ug/L		104	70 - 140
1,3,5-Trimethylbenzene	20.0	22.30		ug/L		111	70 - 140
Vinyl chloride	20.0	20.98		ug/L		105	45 - 135
Xylenes, Total	40.0	45.82		ug/L		115	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*75 - 110*
Dibromofluoromethane (Surr)	*108*		*75 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-46198/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			04/24/14 09:25	1
Chloride	<1.00		1.00		mg/L			04/24/14 09:25	1

Lab Sample ID: LCS 310-46198/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.814		mg/L		98	90 - 110
Chloride	10.0	10.45		mg/L		104	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-46158/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46322 — **Prep Batch: 46158**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		04/24/14 07:52	04/24/14 18:09	1
Manganese	<0.0100		0.0100		mg/L		04/24/14 07:52	04/24/14 18:09	1

Lab Sample ID: LCS 310-46158/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46322 — **Prep Batch: 46158**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.030		mg/L		101	85 - 110
Manganese	1.00	1.011		mg/L		101	85 - 115

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-46629/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/28/14 16:34	1

Lab Sample ID: LCS 310-46629/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.889		mg/L		98	90 - 110

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 310-29158-3 MS — **Client Sample ID: MW-65**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.10		4.99	9.253		mg/L		103	75 - 125

Lab Sample ID: 310-29158-3 MSD — **Client Sample ID: MW-65**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	4.10		4.99	9.349		mg/L		105	75 - 125	1	20

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-46140/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			04/23/14 17:31	1

Lab Sample ID: LCS 310-46140/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.5149		mg/L		103	90 - 110

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-46141/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			04/23/14 17:24	1

Lab Sample ID: LCS 310-46141/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	16.8	16.99		mg/L		101	90 - 110

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

GC/MS VOA

Analysis Batch: 46054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29158-1	MW-24	Total/NA	Ground Water	8260C	
310-29158-2	MW-62	Total/NA	Ground Water	8260C	
310-29158-3	MW-65	Total/NA	Ground Water	8260C	
310-29158-4	Trip Blank	Total/NA	Water	8260C	
LCS 310-46054/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-46054/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 46198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29158-1	MW-24	Total/NA	Ground Water	9056A	
310-29158-2	MW-62	Total/NA	Ground Water	9056A	
310-29158-3	MW-65	Total/NA	Ground Water	9056A	
LCS 310-46198/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-46198/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 46158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29158-1	MW-24	Total/NA	Ground Water	3010A	
310-29158-2	MW-62	Total/NA	Ground Water	3010A	
310-29158-3	MW-65	Total/NA	Ground Water	3010A	
LCS 310-46158/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-46158/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 46322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29158-1	MW-24	Total/NA	Ground Water	6010C	46158
310-29158-2	MW-62	Total/NA	Ground Water	6010C	46158
310-29158-3	MW-65	Total/NA	Ground Water	6010C	46158
LCS 310-46158/2-A	Lab Control Sample	Total/NA	Water	6010C	46158
MB 310-46158/1-A	Method Blank	Total/NA	Water	6010C	46158

General Chemistry

Analysis Batch: 46140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29158-1	MW-24	Total/NA	Ground Water	SM 4500 NO2 B	
310-29158-2	MW-62	Total/NA	Ground Water	SM 4500 NO2 B	
310-29158-3	MW-65	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-46140/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-46140/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 46141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29158-1	MW-24	Total/NA	Ground Water	SM 4500 NO3 E	
310-29158-2	MW-62	Total/NA	Ground Water	SM 4500 NO3 E	
310-29158-3	MW-65	Total/NA	Ground Water	SM 4500 NO3 E	

General Chemistry (Continued)

Analysis Batch: 46141 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-46141/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-46141/4	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 46629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29158-1	MW-24	Total/NA	Ground Water	9060A	
310-29158-2	MW-62	Total/NA	Ground Water	9060A	
310-29158-3	MW-65	Total/NA	Ground Water	9060A	
310-29158-3 MS	MW-65	Total/NA	Ground Water	9060A	
310-29158-3 MSD	MW-65	Total/NA	Ground Water	9060A	
LCS 310-46629/7	Lab Control Sample	Total/NA	Water	9060A	
MB 310-46629/5	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Client Sample ID: MW-24

Lab Sample ID: 310-29158-1
Date Collected: 04/22/14 13:45
Matrix: Ground Water
Date Received: 04/23/14 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46054	04/25/14 00:37	SJN	TAL CF
Total/NA	Analysis	9056A		5	46198	04/24/14 09:25	CDD	TAL CF
Total/NA	Prep	3010A			46158	04/24/14 07:52	SAV	TAL CF
Total/NA	Analysis	6010C		1	46322	04/24/14 18:37	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/28/14 20:08	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46140	04/23/14 17:31	ETM	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46141	04/23/14 17:42	ETM	TAL CF

Client Sample ID: MW-62

Lab Sample ID: 310-29158-2
Date Collected: 04/22/14 14:40
Matrix: Ground Water
Date Received: 04/23/14 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46054	04/25/14 01:03	SJN	TAL CF
Total/NA	Analysis	9056A		1	46198	04/24/14 16:51	CDD	TAL CF
Total/NA	Prep	3010A			46158	04/24/14 07:52	SAV	TAL CF
Total/NA	Analysis	6010C		1	46322	04/24/14 18:39	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/28/14 23:29	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46140	04/23/14 17:31	ETM	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46141	04/23/14 17:51	ETM	TAL CF

Client Sample ID: MW-65

Lab Sample ID: 310-29158-3
Date Collected: 04/22/14 16:45
Matrix: Ground Water
Date Received: 04/23/14 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46054	04/25/14 01:28	SJN	TAL CF
Total/NA	Analysis	9056A		1	46198	04/24/14 16:52	CDD	TAL CF
Total/NA	Prep	3010A			46158	04/24/14 07:52	SAV	TAL CF
Total/NA	Analysis	6010C		1	46322	04/24/14 18:41	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/28/14 17:24	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46140	04/23/14 17:31	ETM	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46141	04/23/14 17:54	ETM	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-29158-4
Date Collected: 04/22/14 00:00
Matrix: Water
Date Received: 04/23/14 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46054	04/25/14 01:53	SJN	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA	IHLAP		101044	11-01-14
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	7	12-01-13 *
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14
Oregon	NELAP	10	IA100001	09-29-14
Wisconsin	State Program	5	999917270	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29158-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Cedar Falls Facility

310-29158 Chain of Custody

Client: Golder Assoc Project: _____

City: _____ State: _____

Date: 4-23-14 Receiver's Initials: CH Time (Delivered): 9:25

Temperature Record:

Cooler ID# (If Applicable) _____

Uncorrected Temp: 0.3 °C

Corrected Temp: 0.1 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Andrew Koff
(Signature)

Your PO #: 103-87305
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: JPeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red & White Label)	Preservative: HCl (Blue & White Label)	Preservative: NaOH (Orange & White Label)	Preservative: H_2SO_4 Plastic (Yellow & White Labe	Preservative: H_2SO_4 Glass(Yellow & White Label)	Preservative: None (Black & White Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other Specify:Stormwater	Analyze For: 8260 Volatiles	Analyze For: Nitrate, Nitrite	Analyze For: Sulfate, Chloride	Analyze For: TOC	Analyze For: Iron, Manganese	E-mail results	Send QC with report
MW-24	4/22/14	1345	6	X			X	X	X		X				X						X	X	X	X	X	X	X
MW-62	↓	1440	↓	X			↓	↓	↓		↓				↓						X	X	X	X	X	X	X
MW-65	↓	1645	↓	X			↓	↓	↓		↓				↓						X	X	X	X	X	X	X

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	4/22/14	1800						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date 4/23/14	Time 9:25	Temperature Upon Receipt:			Laboratory Comments:		

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-24	310-29158-E-1	Plastic 250ml - with Sulfuric Acid	<2		
MW-24	310-29158-F-1	Plastic 250ml - with Nitric Acid	<2		
MW-62	310-29158-E-2	Plastic 250ml - with Sulfuric Acid	<2		
MW-62	310-29158-F-2	Plastic 250ml - with Nitric Acid	<2		
MW-65	310-29158-E-3	Plastic 250ml - with Sulfuric Acid	<2		
MW-65	310-29158-F-3	Plastic 250ml - with Nitric Acid	<2		

4/23/14

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-29158-1

Login Number: 29158
List Number: 1
Creator: Wilson, Cheryl L

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-29313-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
5/6/2014 12:52:45 PM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-29313-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-29313-1

Comments
No additional comments.

Receipt
The samples were received on 4/24/2014 9:11 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 46296 recovered above the upper control limit for Chlorobromomethane (22.4 %D), 1,1,2-Trichloroethane (21.9 %D), 1,2-Dichloroethane (22 %D) and Tetrachloroethene (24.8 %D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-46296/4).

Method(s) 8260C: The laboratory control sample (LCS) for batch 46296 recovered outside control limits for the following analyte : 1,1-Dichloroethane. The analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 46856 recovered outside control limits for the following analytes: cis-1,3-Dichloropropene, Isopropylbenzene, 1,1,1-Trichloroethane, and 2,2-Dichloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method(s) 6010C: The following sample was diluted due to the presence of an interferent. MW-25S (310-29313-5). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method(s) 9056A: The following sample was diluted due to the nature of the sample matrix: MW-25D (310-29313-4). Elevated reporting limits (RLs) are provided for chloride.

Method(s) 9056A: The following sample was diluted due to the nature of the sample matrix: MW-25S (310-29313-5). Elevated reporting limits (RLs) are provided for sulfate.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-29313-1	MW-64	Ground Water	04/23/14 08:40	04/24/14 09:11
310-29313-2	MW-26D	Ground Water	04/23/14 12:35	04/24/14 09:11
310-29313-3	MW-26S	Ground Water	04/23/14 13:25	04/24/14 09:11
310-29313-4	MW-25D	Ground Water	04/23/14 14:40	04/24/14 09:11
310-29313-5	MW-25S	Ground Water	04/23/14 15:30	04/24/14 09:11
310-29313-6	Trip Blank	Water	04/23/14 00:00	04/24/14 09:11

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-64 — Lab Sample ID: 310-29313-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	32.9		1.00		ug/L	1		8260C	Total/NA
Sulfate	77.6		5.00		mg/L	5		9056A	Total/NA
Chloride	12.6		5.00		mg/L	5		9056A	Total/NA
Iron	0.159		0.100		mg/L	1		6010C	Total/NA
Manganese	0.516		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.88		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.249		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-26D — Lab Sample ID: 310-29313-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	6.68		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	123		1.00		ug/L	1		8260C	Total/NA
Sulfate	36.4		5.00		mg/L	5		9056A	Total/NA
Chloride	9.61		5.00		mg/L	5		9056A	Total/NA
Manganese	0.172		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.48		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	1.78		0.250		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-26S — Lab Sample ID: 310-29313-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	36.3		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	518		100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	10.9		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	43200		1000		ug/L	1000		8260C	Total/NA
Sulfate	50.2		5.00		mg/L	5		9056A	Total/NA
Chloride	60.6		5.00		mg/L	5		9056A	Total/NA
Iron	0.127		0.100		mg/L	1		6010C	Total/NA
Manganese	0.0247		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.42		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	1.16		0.250		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-25D — Lab Sample ID: 310-29313-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	5.08		1.00		ug/L	1		8260C	Total/NA
Sulfate	26.4		5.00		mg/L	5		9056A	Total/NA
Iron	0.167		0.100		mg/L	1		6010C	Total/NA
Manganese	0.111		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.52		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.572		0.167		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-25S — Lab Sample ID: 310-29313-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7590		100		ug/L	10		8260C	Total/NA
1,1-Dichloroethene	88.6		20.0		ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	45900		1000		ug/L	1000		8260C	Total/NA
trans-1,2-Dichloroethene	686		10.0		ug/L	10		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-25S (Continued) — Lab Sample ID: 310-29313-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1320		1000		ug/L	1000		8260C	Total/NA
Vinyl chloride	6060		1000		ug/L	1000		8260C	Total/NA
Chloride	146		5.00		mg/L	5		9056A	Total/NA
Iron	23.5		1.50		mg/L	15		6010C	Total/NA
Manganese	1.22		0.150		mg/L	15		6010C	Total/NA
Total Organic Carbon	420		100		mg/L	100		9060A	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-29313-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-64

Date Collected: 04/23/14 08:40
Date Received: 04/24/14 09:11

Lab Sample ID: 310-29313-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 11:40	1
Benzene	<0.500		0.500		ug/L			04/26/14 11:40	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 11:40	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 11:40	1
Bromoform	<5.00		5.00		ug/L			04/26/14 11:40	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 11:40	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 11:40	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 11:40	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 11:40	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 11:40	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 11:40	1
Chloroform	<1.00		1.00		ug/L			04/26/14 11:40	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 11:40	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 11:40	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 11:40	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 11:40	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 11:40	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 11:40	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 11:40	1
1,1-Dichloroethane	<1.00	*	1.00		ug/L			04/26/14 11:40	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 11:40	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/26/14 11:40	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 11:40	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 11:40	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 11:40	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 11:40	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 11:40	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 11:40	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 11:40	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 11:40	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 11:40	1
Hexane	<1.00		1.00		ug/L			04/26/14 11:40	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 11:40	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 11:40	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 11:40	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 11:40	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
Styrene	<1.00		1.00		ug/L			04/26/14 11:40	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 11:40	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-64

Date Collected: 04/23/14 08:40
Date Received: 04/24/14 09:11

Lab Sample ID: 310-29313-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 11:40	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 11:40	1
Toluene	<1.00		1.00		ug/L			04/26/14 11:40	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 11:40	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 11:40	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 11:40	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 11:40	1
Trichloroethene	**32.9**		1.00		ug/L			05/01/14 09:40	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 11:40	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 11:40	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 11:40	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 11:40	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 11:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 110*		*04/26/14 11:40*	*1*
4-Bromofluorobenzene (Surr)	*100*		*75 - 110*		*05/01/14 09:40*	*1*
Dibromofluoromethane (Surr)	*117*		*75 - 120*		*04/26/14 11:40*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 120*		*05/01/14 09:40*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/26/14 11:40*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/01/14 09:40*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**77.6**		5.00		mg/L			04/30/14 08:32	5
Chloride	**12.6**		5.00		mg/L			04/30/14 08:32	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.159**		0.100		mg/L		04/25/14 08:03	04/25/14 20:42	1
Manganese	**0.516**		0.0100		mg/L		04/25/14 08:03	04/25/14 20:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.88**		1.00		mg/L			04/29/14 10:45	1
Nitrite as N	<0.100		0.100		mg/L			04/24/14 14:37	1
Nitrate as N	**0.249**		0.100		mg/L			04/24/14 14:44	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-26D
Date Collected: 04/23/14 12:35
Date Received: 04/24/14 09:11

Lab Sample ID: 310-29313-2
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 11:15	1
Benzene	<0.500		0.500		ug/L			04/26/14 11:15	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 11:15	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 11:15	1
Bromoform	<5.00		5.00		ug/L			04/26/14 11:15	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 11:15	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 11:15	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 11:15	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 11:15	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 11:15	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 11:15	1
Chloroform	<1.00		1.00		ug/L			04/26/14 11:15	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 11:15	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 11:15	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 11:15	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 11:15	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 11:15	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 11:15	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 11:15	1
1,1-Dichloroethane	<1.00	*	1.00		ug/L			04/26/14 11:15	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 11:15	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/26/14 11:15	1
cis-1,2-Dichloroethene	**6.68**		1.00		ug/L			04/30/14 14:56	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 11:15	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 11:15	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 11:15	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 11:15	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 11:15	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 11:15	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 11:15	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 11:15	1
Hexane	<1.00		1.00		ug/L			04/26/14 11:15	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 11:15	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 11:15	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 11:15	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 11:15	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
Styrene	<1.00		1.00		ug/L			04/26/14 11:15	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 11:15	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-26D

Date Collected: 04/23/14 12:35
Date Received: 04/24/14 09:11

Lab Sample ID: 310-29313-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 11:15	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 11:15	1
Toluene	<1.00		1.00		ug/L			04/26/14 11:15	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 11:15	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 11:15	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 11:15	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 11:15	1
Trichloroethene	**123**		1.00		ug/L			04/30/14 14:56	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 11:15	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 11:15	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 11:15	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 11:15	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 110*		*04/26/14 11:15*	*1*
4-Bromofluorobenzene (Surr)	*98*		*75 - 110*		*04/30/14 14:56*	*1*
Dibromofluoromethane (Surr)	*117*		*75 - 120*		*04/26/14 11:15*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 120*		*04/30/14 14:56*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/26/14 11:15*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/30/14 14:56*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**36.4**		5.00		mg/L			04/30/14 08:32	5
Chloride	**9.61**		5.00		mg/L			04/30/14 08:32	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		04/25/14 08:03	04/25/14 20:44	1
Manganese	**0.172**		0.0100		mg/L		04/25/14 08:03	04/25/14 20:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.48**		1.00		mg/L			04/29/14 13:13	1
Nitrite as N	<0.100		0.100		mg/L			04/24/14 14:37	1
Nitrate as N	**1.78**		0.250		mg/L			04/24/14 14:46	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-26S

Date Collected: 04/23/14 13:25
Date Received: 04/24/14 09:11

Lab Sample ID: 310-29313-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 10:49	1
Benzene	<0.500		0.500		ug/L			04/26/14 10:49	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 10:49	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 10:49	1
Bromoform	<5.00		5.00		ug/L			04/26/14 10:49	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 10:49	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 10:49	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 10:49	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 10:49	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 10:49	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 10:49	1
Chloroform	<1.00		1.00		ug/L			04/26/14 10:49	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 10:49	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 10:49	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 10:49	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 10:49	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 10:49	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 10:49	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 10:49	1
1,1-Dichloroethane	<100		100		ug/L			04/30/14 15:20	100
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 10:49	1
1,1-Dichloroethene	**36.3**		2.00		ug/L			04/26/14 10:49	1
cis-1,2-Dichloroethene	**518**		100		ug/L			04/30/14 15:20	100
trans-1,2-Dichloroethene	**10.9**		1.00		ug/L			04/26/14 10:49	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 10:49	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 10:49	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 10:49	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 10:49	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 10:49	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 10:49	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 10:49	1
Hexane	<1.00		1.00		ug/L			04/26/14 10:49	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 10:49	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 10:49	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 10:49	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 10:49	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
Styrene	<1.00		1.00		ug/L			04/26/14 10:49	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 10:49	1

Client Sample ID: MW-26S

Date Collected: 04/23/14 13:25
Date Received: 04/24/14 09:11

Lab Sample ID: 310-29313-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 10:49	1
Tetrachloroethene	<100		100		ug/L			04/30/14 15:20	100
Toluene	<1.00		1.00		ug/L			04/26/14 10:49	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 10:49	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 10:49	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 10:49	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 10:49	1
Trichloroethene	**43200**		1000		ug/L			05/03/14 10:19	1000
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 10:49	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 10:49	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 10:49	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 10:49	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 110*		*04/26/14 10:49*	*1*
4-Bromofluorobenzene (Surr)	*98*		*75 - 110*		*04/30/14 15:20*	*100*
4-Bromofluorobenzene (Surr)	*97*		*75 - 110*		*05/03/14 10:19*	*1000*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*04/26/14 10:49*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*04/30/14 15:20*	*100*
Dibromofluoromethane (Surr)	*106*		*75 - 120*		*05/03/14 10:19*	*1000*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/26/14 10:49*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/30/14 15:20*	*100*
Toluene-d8 (Surr)	*87*		*80 - 120*		*05/03/14 10:19*	*1000*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**50.2**		5.00		mg/L			04/30/14 08:32	5
Chloride	**60.6**		5.00		mg/L			04/30/14 08:32	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.127**		0.100		mg/L		04/25/14 08:03	04/25/14 20:46	1
Manganese	**0.0247**		0.0100		mg/L		04/25/14 08:03	04/25/14 20:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.42**		1.00		mg/L			04/29/14 10:27	1
Nitrite as N	<0.100		0.100		mg/L			04/24/14 14:37	1
Nitrate as N	**1.16**		0.250		mg/L			04/24/14 14:48	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-25D

Lab Sample ID: 310-29313-4

Date Collected: 04/23/14 14:40
Matrix: Ground Water
Date Received: 04/24/14 09:11

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 10:24	1
Benzene	<0.500		0.500		ug/L			04/26/14 10:24	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 10:24	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 10:24	1
Bromoform	<5.00		5.00		ug/L			04/26/14 10:24	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 10:24	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 10:24	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 10:24	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 10:24	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 10:24	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 10:24	1
Chloroform	<1.00		1.00		ug/L			04/26/14 10:24	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 10:24	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 10:24	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 10:24	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 10:24	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 10:24	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 10:24	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 10:24	1
1,1-Dichloroethane	<1.00	*	1.00		ug/L			04/26/14 10:24	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 10:24	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/26/14 10:24	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 10:24	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 10:24	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 10:24	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 10:24	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 10:24	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 10:24	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 10:24	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 10:24	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 10:24	1
Hexane	<1.00		1.00		ug/L			04/26/14 10:24	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 10:24	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 10:24	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 10:24	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 10:24	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
Styrene	<1.00		1.00		ug/L			04/26/14 10:24	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 10:24	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-25D

Date Collected: 04/23/14 14:40
Date Received: 04/24/14 09:11

Lab Sample ID: 310-29313-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 10:24	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 10:24	1
Toluene	<1.00		1.00		ug/L			04/26/14 10:24	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 10:24	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 10:24	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 10:24	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 10:24	1
Trichloroethene	**5.08**		1.00		ug/L			04/26/14 10:24	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 10:24	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 10:24	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 10:24	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 10:24	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 10:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 110*		*04/26/14 10:24*	*1*
Dibromofluoromethane (Surr)	*116*		*75 - 120*		*04/26/14 10:24*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/26/14 10:24*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**26.4**		5.00		mg/L			04/30/14 08:32	5
Chloride	<5.00		5.00		mg/L			04/30/14 08:32	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.167**		0.100		mg/L		04/25/14 08:03	04/25/14 20:48	1
Manganese	**0.111**		0.0100		mg/L		04/25/14 08:03	04/25/14 20:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.52**		1.00		mg/L			04/29/14 13:29	1
Nitrite as N	<0.100		0.100		mg/L			04/24/14 14:37	1
Nitrate as N	**0.572**		0.167		mg/L			04/24/14 14:52	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-25S

Date Collected: 04/23/14 15:30
Date Received: 04/24/14 09:11

Lab Sample ID: 310-29313-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**7590**		100		ug/L			04/26/14 14:12	10
Benzene	<5.00		5.00		ug/L			04/26/14 14:12	10
Bromobenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
Bromochloromethane	<50.0		50.0		ug/L			04/26/14 14:12	10
Bromodichloromethane	<10.0		10.0		ug/L			04/26/14 14:12	10
Bromoform	<50.0		50.0		ug/L			04/26/14 14:12	10
Bromomethane	<40.0		40.0		ug/L			04/26/14 14:12	10
2-Butanone (MEK)	<100		100		ug/L			04/26/14 14:12	10
n-Butylbenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
sec-Butylbenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
tert-Butylbenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
Carbon disulfide	<10.0		10.0		ug/L			04/26/14 14:12	10
Carbon tetrachloride	<20.0		20.0		ug/L			04/26/14 14:12	10
Chlorobenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
Chlorodibromomethane	<50.0		50.0		ug/L			04/26/14 14:12	10
Chloroethane	<40.0		40.0		ug/L			04/26/14 14:12	10
Chloroform	<10.0		10.0		ug/L			04/26/14 14:12	10
Chloromethane	<30.0		30.0		ug/L			04/26/14 14:12	10
2-Chlorotoluene	<10.0		10.0		ug/L			04/26/14 14:12	10
4-Chlorotoluene	<10.0		10.0		ug/L			04/26/14 14:12	10
1,2-Dibromo-3-Chloropropane	<100		100		ug/L			04/26/14 14:12	10
1,2-Dibromoethane (EDB)	<100		100		ug/L			04/26/14 14:12	10
Dibromomethane	<10.0		10.0		ug/L			04/26/14 14:12	10
1,2-Dichlorobenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
1,3-Dichlorobenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
1,4-Dichlorobenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
Dichlorodifluoromethane	<30.0		30.0		ug/L			04/26/14 14:12	10
1,1-Dichloroethane	<10.0	*	10.0		ug/L			04/26/14 14:12	10
1,2-Dichloroethane	<10.0		10.0		ug/L			04/26/14 14:12	10
1,1-Dichloroethene	**88.6**		20.0		ug/L			04/26/14 14:12	10
cis-1,2-Dichloroethene	**45900**		1000		ug/L			04/30/14 15:45	1000
trans-1,2-Dichloroethene	**686**		10.0		ug/L			04/26/14 14:12	10
1,2-Dichloropropane	<10.0		10.0		ug/L			04/26/14 14:12	10
1,3-Dichloropropane	<10.0		10.0		ug/L			04/26/14 14:12	10
2,2-Dichloropropane	<40.0		40.0		ug/L			04/26/14 14:12	10
1,1-Dichloropropene	<10.0		10.0		ug/L			04/26/14 14:12	10
cis-1,3-Dichloropropene	<50.0		50.0		ug/L			04/26/14 14:12	10
trans-1,3-Dichloropropene	<50.0		50.0		ug/L			04/26/14 14:12	10
Ethylbenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
Hexachlorobutadiene	<50.0		50.0		ug/L			04/26/14 14:12	10
Hexane	<10.0		10.0		ug/L			04/26/14 14:12	10
Isopropylbenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
p-Isopropyltoluene	<10.0		10.0		ug/L			04/26/14 14:12	10
Methylene Chloride	<50.0		50.0		ug/L			04/26/14 14:12	10
Methyl tert-butyl ether	<10.0		10.0		ug/L			04/26/14 14:12	10
Naphthalene	<50.0		50.0		ug/L			04/26/14 14:12	10
N-Propylbenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
Styrene	<10.0		10.0		ug/L			04/26/14 14:12	10
1,1,1,2-Tetrachloroethane	<10.0		10.0		ug/L			04/26/14 14:12	10

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-25S

Date Collected: 04/23/14 15:30
Date Received: 04/24/14 09:11

Lab Sample ID: 310-29313-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<10.0		10.0		ug/L			04/26/14 14:12	10
Tetrachloroethene	<10.0		10.0		ug/L			04/26/14 14:12	10
Toluene	<10.0		10.0		ug/L			04/26/14 14:12	10
1,2,3-Trichlorobenzene	<50.0		50.0		ug/L			04/26/14 14:12	10
1,2,4-Trichlorobenzene	<50.0		50.0		ug/L			04/26/14 14:12	10
1,1,1-Trichloroethane	<10.0		10.0		ug/L			04/26/14 14:12	10
1,1,2-Trichloroethane	<10.0		10.0		ug/L			04/26/14 14:12	10
Trichloroethene	**1320**		1000		ug/L			04/30/14 15:45	1000
Trichlorofluoromethane	<40.0		40.0		ug/L			04/26/14 14:12	10
1,2,3-Trichloropropane	<10.0		10.0		ug/L			04/26/14 14:12	10
1,2,4-Trimethylbenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
1,3,5-Trimethylbenzene	<10.0		10.0		ug/L			04/26/14 14:12	10
Vinyl chloride	**6060**		1000		ug/L			04/30/14 15:45	1000
Xylenes, Total	<30.0		30.0		ug/L			04/26/14 14:12	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 110*		*04/26/14 14:12*	*10*
4-Bromofluorobenzene (Surr)	*98*		*75 - 110*		*04/30/14 15:45*	*1000*
Dibromofluoromethane (Surr)	*116*		*75 - 120*		*04/26/14 14:12*	*10*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*04/30/14 15:45*	*1000*
Toluene-d8 (Surr)	*92*		*80 - 120*		*04/26/14 14:12*	*10*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/30/14 15:45*	*1000*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			04/30/14 08:32	5
Chloride	**146**		5.00		mg/L			04/30/14 08:32	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**23.5**		1.50		mg/L		04/25/14 08:03	04/25/14 21:03	15
Manganese	**1.22**		0.150		mg/L		04/25/14 08:03	04/25/14 21:03	15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**420**		100		mg/L			04/29/14 11:22	100
Nitrite as N	<0.100		0.100		mg/L			04/24/14 14:37	1
Nitrate as N	<0.100		0.100		mg/L			04/24/14 14:55	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-29313-6

Date Collected: 04/23/14 00:00
Matrix: Water
Date Received: 04/24/14 09:11

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 09:59	1
Benzene	<0.500		0.500		ug/L			04/26/14 09:59	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 09:59	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 09:59	1
Bromoform	<5.00		5.00		ug/L			04/26/14 09:59	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 09:59	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 09:59	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 09:59	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 09:59	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 09:59	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 09:59	1
Chloroform	<1.00		1.00		ug/L			04/26/14 09:59	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 09:59	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 09:59	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 09:59	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 09:59	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 09:59	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 09:59	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 09:59	1
1,1-Dichloroethane	<1.00	*	1.00		ug/L			04/26/14 09:59	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 09:59	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/26/14 09:59	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 09:59	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 09:59	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 09:59	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 09:59	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 09:59	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 09:59	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 09:59	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 09:59	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 09:59	1
Hexane	<1.00		1.00		ug/L			04/26/14 09:59	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 09:59	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 09:59	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 09:59	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 09:59	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
Styrene	<1.00		1.00		ug/L			04/26/14 09:59	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 09:59	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-29313-6

Date Collected: 04/23/14 00:00
Matrix: Water
Date Received: 04/24/14 09:11

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 09:59	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 09:59	1
Toluene	<1.00		1.00		ug/L			04/26/14 09:59	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 09:59	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 09:59	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 09:59	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 09:59	1
Trichloroethene	<1.00		1.00		ug/L			04/26/14 09:59	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 09:59	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 09:59	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 09:59	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 09:59	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 09:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*75 - 110*		*04/26/14 09:59*	*1*
Dibromofluoromethane (Surr)	*118*		*75 - 120*		*04/26/14 09:59*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/26/14 09:59*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-110)	(75-120)	(80-120)
310-29313-1	MW-64	102	117	97
310-29313-1	MW-64	100	104	96
310-29313-2	MW-26D	103	117	96
310-29313-2	MW-26D	98	96	97
310-29313-3	MW-26S	101	107	97
310-29313-3	MW-26S	98	99	99
310-29313-3	MW-26S	97	106	87
310-29313-4	MW-25D	100	116	95
310-29313-5	MW-25S	102	116	92
310-29313-5	MW-25S	98	100	97

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-110)	(75-120)	(80-120)
310-29313-6	Trip Blank	104	118	95
LCS 310-46296/5	Lab Control Sample	99	108	100
LCS 310-46763/5	Lab Control Sample	97	101	99
LCS 310-46856/5	Lab Control Sample	101	102	102
LCS 310-47080/4	Lab Control Sample	99	110	89
MB 310-46296/8	Method Blank	98	111	96
MB 310-46763/8	Method Blank	100	97	97
MB 310-46856/8	Method Blank	98	106	96
MB 310-47080/7	Method Blank	96	103	88

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-46296/8
Matrix: Water
Analysis Batch: 46296

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 05:46	1
Benzene	<0.500		0.500		ug/L			04/26/14 05:46	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 05:46	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 05:46	1
Bromoform	<5.00		5.00		ug/L			04/26/14 05:46	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 05:46	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 05:46	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 05:46	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 05:46	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 05:46	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 05:46	1
Chloroform	<1.00		1.00		ug/L			04/26/14 05:46	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 05:46	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 05:46	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 05:46	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 05:46	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 05:46	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 05:46	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 05:46	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/26/14 05:46	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 05:46	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/26/14 05:46	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 05:46	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 05:46	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 05:46	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 05:46	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 05:46	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 05:46	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 05:46	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 05:46	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 05:46	1
Hexane	<1.00		1.00		ug/L			04/26/14 05:46	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 05:46	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 05:46	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 05:46	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 05:46	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
Styrene	<1.00		1.00		ug/L			04/26/14 05:46	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-46296/8
Matrix: Water
Analysis Batch: 46296

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 05:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 05:46	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 05:46	1
Toluene	<1.00		1.00		ug/L			04/26/14 05:46	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 05:46	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 05:46	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 05:46	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 05:46	1
Trichloroethene	<1.00		1.00		ug/L			04/26/14 05:46	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 05:46	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 05:46	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 05:46	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 05:46	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 05:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 110*		*04/26/14 05:46*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 120*		*04/26/14 05:46*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/26/14 05:46*	*1*

Lab Sample ID: LCS 310-46296/5
Matrix: Water
Analysis Batch: 46296

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	47.57		ug/L		119	60 - 150
Benzene	20.0	23.99		ug/L		120	70 - 130
Bromobenzene	20.0	22.25		ug/L		111	75 - 130
Bromochloromethane	20.0	25.04		ug/L		125	65 - 145
Bromodichloromethane	20.0	23.52		ug/L		118	60 - 130
Bromoform	20.0	21.14		ug/L		106	30 - 125
Bromomethane	20.0	20.82		ug/L		104	35 - 130
2-Butanone (MEK)	40.0	48.23		ug/L		121	55 - 140
n-Butylbenzene	20.0	20.60		ug/L		103	55 - 135
sec-Butylbenzene	20.0	23.54		ug/L		118	65 - 135
tert-Butylbenzene	20.0	23.00		ug/L		115	60 - 135
Carbon disulfide	20.0	25.24		ug/L		126	40 - 130
Carbon tetrachloride	20.0	24.32		ug/L		122	55 - 130
Chlorobenzene	20.0	23.49		ug/L		117	75 - 125
Chlorodibromomethane	20.0	23.07		ug/L		115	45 - 125
Chloroethane	20.0	21.41		ug/L		107	55 - 135
Chloroform	20.0	24.30		ug/L		122	70 - 125
Chloromethane	20.0	19.44		ug/L		97	30 - 125
2-Chlorotoluene	20.0	23.60		ug/L		118	75 - 135
4-Chlorotoluene	20.0	22.76		ug/L		114	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	21.31		ug/L		107	35 - 130
1,2-Dibromoethane (EDB)	20.0	22.67		ug/L		113	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-46296/5
Matrix: Water
Analysis Batch: 46296

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	23.99		ug/L		120	75 - 130
1,2-Dichlorobenzene	20.0	21.48		ug/L		107	65 - 135
1,3-Dichlorobenzene	20.0	21.60		ug/L		108	70 - 130
1,4-Dichlorobenzene	20.0	22.09		ug/L		110	60 - 140
Dichlorodifluoromethane	20.0	17.24		ug/L		86	35 - 130
1,1-Dichloroethane	20.0	26.21	*	ug/L		131	60 - 130
1,2-Dichloroethane	20.0	25.41		ug/L		127	65 - 140
1,1-Dichloroethene	20.0	23.89		ug/L		119	60 - 135
cis-1,2-Dichloroethene	20.0	26.19		ug/L		131	70 - 135
trans-1,2-Dichloroethene	20.0	25.67		ug/L		128	60 - 145
1,2-Dichloropropane	20.0	24.02		ug/L		120	65 - 130
1,3-Dichloropropane	20.0	23.08		ug/L		115	75 - 125
2,2-Dichloropropane	20.0	21.56		ug/L		108	25 - 120
1,1-Dichloropropene	20.0	22.24		ug/L		111	60 - 140
cis-1,3-Dichloropropene	20.0	21.32		ug/L		107	30 - 120
trans-1,3-Dichloropropene	20.0	20.68		ug/L		103	35 - 120
Ethylbenzene	20.0	24.72		ug/L		124	70 - 130
Hexachlorobutadiene	20.0	22.69		ug/L		113	60 - 135
Hexane	20.0	19.75		ug/L		99	40 - 135
Isopropylbenzene	20.0	24.23		ug/L		121	70 - 125
p-Isopropyltoluene	20.0	21.55		ug/L		108	60 - 140
Methylene Chloride	20.0	21.58		ug/L		108	55 - 145
Methyl tert-butyl ether	20.0	24.43		ug/L		122	50 - 135
Naphthalene	20.0	18.37		ug/L		92	40 - 135
N-Propylbenzene	20.0	24.00		ug/L		120	70 - 135
Styrene	20.0	23.42		ug/L		117	70 - 130
1,1,1,2-Tetrachloroethane	20.0	23.62		ug/L		118	65 - 120
1,1,2,2-Tetrachloroethane	20.0	22.04		ug/L		110	65 - 130
Tetrachloroethene	20.0	25.17		ug/L		126	70 - 135
Toluene	20.0	22.93		ug/L		115	70 - 135
1,2,3-Trichlorobenzene	20.0	18.02		ug/L		90	55 - 130
1,2,4-Trichlorobenzene	20.0	16.63		ug/L		83	40 - 135
1,1,1-Trichloroethane	20.0	24.97		ug/L		125	60 - 125
1,1,2-Trichloroethane	20.0	23.09		ug/L		115	75 - 125
Trichloroethene	20.0	23.98		ug/L		120	70 - 130
Trichlorofluoromethane	20.0	21.48		ug/L		107	55 - 145
1,2,3-Trichloropropane	20.0	22.16		ug/L		111	60 - 150
1,2,4-Trimethylbenzene	20.0	21.01		ug/L		105	70 - 140
1,3,5-Trimethylbenzene	20.0	22.44		ug/L		112	70 - 140
Vinyl chloride	20.0	22.75		ug/L		114	45 - 135
Xylenes, Total	40.0	47.22		ug/L		118	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 110*
Dibromofluoromethane (Surr)	*108*		*75 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-46763/8 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46763

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	<1.00		1.00		ug/L			04/30/14 07:50	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/30/14 07:50	1
Tetrachloroethene	<1.00		1.00		ug/L			04/30/14 07:50	1
Trichloroethene	<1.00		1.00		ug/L			04/30/14 07:50	1
Vinyl chloride	<1.00		1.00		ug/L			04/30/14 07:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 110*		*04/30/14 07:50*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 120*		*04/30/14 07:50*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/30/14 07:50*	*1*

Lab Sample ID: LCS 310-46763/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46763

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	22.30		ug/L		112	60 - 130
cis-1,2-Dichloroethene	20.0	22.01		ug/L		110	70 - 135
Tetrachloroethene	20.0	20.82		ug/L		104	70 - 135
Trichloroethene	20.0	22.46		ug/L		112	70 - 130
Vinyl chloride	20.0	23.80		ug/L		119	45 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*75 - 110*
Dibromofluoromethane (Surr)	*101*		*75 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: MB 310-46856/8 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46856

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/01/14 09:14	1
Benzene	<0.500		0.500		ug/L			05/01/14 09:14	1
Bromobenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
Bromochloromethane	<5.00		5.00		ug/L			05/01/14 09:14	1
Bromodichloromethane	<1.00		1.00		ug/L			05/01/14 09:14	1
Bromoform	<5.00		5.00		ug/L			05/01/14 09:14	1
Bromomethane	<4.00		4.00		ug/L			05/01/14 09:14	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/01/14 09:14	1
n-Butylbenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
Carbon disulfide	<1.00		1.00		ug/L			05/01/14 09:14	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/01/14 09:14	1
Chlorobenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/01/14 09:14	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-46856/8
Matrix: Water
Analysis Batch: 46856

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	<4.00		4.00		ug/L			05/01/14 09:14	1
Chloroform	<1.00		1.00		ug/L			05/01/14 09:14	1
Chloromethane	<3.00		3.00		ug/L			05/01/14 09:14	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/01/14 09:14	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/01/14 09:14	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			05/01/14 09:14	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			05/01/14 09:14	1
Dibromomethane	<1.00		1.00		ug/L			05/01/14 09:14	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/01/14 09:14	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/01/14 09:14	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/01/14 09:14	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/01/14 09:14	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/01/14 09:14	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/01/14 09:14	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/01/14 09:14	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/01/14 09:14	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/01/14 09:14	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/01/14 09:14	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/01/14 09:14	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/01/14 09:14	1
Ethylbenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/01/14 09:14	1
Hexane	<1.00		1.00		ug/L			05/01/14 09:14	1
Isopropylbenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/01/14 09:14	1
Methylene Chloride	<5.00		5.00		ug/L			05/01/14 09:14	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/01/14 09:14	1
Naphthalene	<5.00		5.00		ug/L			05/01/14 09:14	1
N-Propylbenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
Styrene	<1.00		1.00		ug/L			05/01/14 09:14	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/01/14 09:14	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/01/14 09:14	1
Tetrachloroethene	<1.00		1.00		ug/L			05/01/14 09:14	1
Toluene	<1.00		1.00		ug/L			05/01/14 09:14	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/01/14 09:14	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/01/14 09:14	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/01/14 09:14	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/01/14 09:14	1
Trichloroethene	<1.00		1.00		ug/L			05/01/14 09:14	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/01/14 09:14	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/01/14 09:14	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/01/14 09:14	1
Vinyl chloride	<1.00		1.00		ug/L			05/01/14 09:14	1
Xylenes, Total	<3.00		3.00		ug/L			05/01/14 09:14	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-46856/8
Matrix: Water
Analysis Batch: 46856

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 110		05/01/14 09:14	1
Dibromofluoromethane (Surr)	106		75 - 120		05/01/14 09:14	1
Toluene-d8 (Surr)	96		80 - 120		05/01/14 09:14	1

Lab Sample ID: LCS 310-46856/5
Matrix: Water
Analysis Batch: 46856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	44.15		ug/L		110	60 - 150
Benzene	20.0	24.14		ug/L		121	70 - 130
Bromobenzene	20.0	24.99		ug/L		125	75 - 130
Bromochloromethane	20.0	26.27		ug/L		131	65 - 145
Bromodichloromethane	20.0	23.32		ug/L		117	60 - 130
Bromoform	20.0	22.35		ug/L		112	30 - 125
Bromomethane	20.0	19.88		ug/L		99	35 - 130
2-Butanone (MEK)	40.0	48.40		ug/L		121	55 - 140
n-Butylbenzene	20.0	21.13		ug/L		106	55 - 135
sec-Butylbenzene	20.0	24.12		ug/L		121	65 - 135
tert-Butylbenzene	20.0	25.58		ug/L		128	60 - 135
Carbon disulfide	20.0	24.25		ug/L		121	40 - 130
Carbon tetrachloride	20.0	24.95		ug/L		125	55 - 130
Chlorobenzene	20.0	24.63		ug/L		123	75 - 125
Chlorodibromomethane	20.0	23.03		ug/L		115	45 - 125
Chloroethane	20.0	25.67		ug/L		128	55 - 135
Chloroform	20.0	23.47		ug/L		117	70 - 125
Chloromethane	20.0	21.02		ug/L		105	30 - 125
2-Chlorotoluene	20.0	24.99		ug/L		125	75 - 135
4-Chlorotoluene	20.0	25.23		ug/L		126	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	21.64		ug/L		108	35 - 130
1,2-Dibromoethane (EDB)	20.0	23.36		ug/L		117	70 - 135
Dibromomethane	20.0	23.96		ug/L		120	75 - 130
1,2-Dichlorobenzene	20.0	23.45		ug/L		117	65 - 135
1,3-Dichlorobenzene	20.0	24.88		ug/L		124	70 - 130
1,4-Dichlorobenzene	20.0	24.32		ug/L		122	60 - 140
Dichlorodifluoromethane	20.0	18.88		ug/L		94	35 - 130
1,1-Dichloroethane	20.0	24.38		ug/L		122	60 - 130
1,2-Dichloroethane	20.0	23.76		ug/L		119	65 - 140
1,1-Dichloroethene	20.0	24.47		ug/L		122	60 - 135
cis-1,2-Dichloroethene	20.0	23.15		ug/L		116	70 - 135
trans-1,2-Dichloroethene	20.0	24.35		ug/L		122	60 - 145
1,2-Dichloropropane	20.0	24.15		ug/L		121	65 - 130
1,3-Dichloropropane	20.0	24.33		ug/L		122	75 - 125
2,2-Dichloropropane	20.0	26.06	*	ug/L		130	25 - 120
1,1-Dichloropropene	20.0	25.08		ug/L		125	60 - 140
cis-1,3-Dichloropropene	20.0	24.30	*	ug/L		121	30 - 120
trans-1,3-Dichloropropene	20.0	22.07		ug/L		110	35 - 120
Ethylbenzene	20.0	25.56		ug/L		128	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-46856/5
Matrix: Water
Analysis Batch: 46856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene	20.0	24.80		ug/L		124	60 - 135
Hexane	20.0	23.54		ug/L		118	40 - 135
Isopropylbenzene	20.0	25.73	*	ug/L		129	70 - 125
p-Isopropyltoluene	20.0	24.12		ug/L		121	60 - 140
Methylene Chloride	20.0	21.54		ug/L		108	55 - 145
Methyl tert-butyl ether	20.0	24.02		ug/L		120	50 - 135
Naphthalene	20.0	21.45		ug/L		107	40 - 135
N-Propylbenzene	20.0	25.49		ug/L		127	70 - 135
Styrene	20.0	25.41		ug/L		127	70 - 130
1,1,1,2-Tetrachloroethane	20.0	23.98		ug/L		120	65 - 120
1,1,2,2-Tetrachloroethane	20.0	23.91		ug/L		120	65 - 130
Tetrachloroethene	20.0	24.77		ug/L		124	70 - 135
Toluene	20.0	25.09		ug/L		125	70 - 135
1,2,3-Trichlorobenzene	20.0	23.82		ug/L		119	55 - 130
1,2,4-Trichlorobenzene	20.0	21.41		ug/L		107	40 - 135
1,1,1-Trichloroethane	20.0	25.24	*	ug/L		126	60 - 125
1,1,2-Trichloroethane	20.0	23.96		ug/L		120	75 - 125
Trichloroethene	20.0	23.41		ug/L		117	70 - 130
Trichlorofluoromethane	20.0	22.96		ug/L		115	55 - 145
1,2,3-Trichloropropane	20.0	23.42		ug/L		117	60 - 150
1,2,4-Trimethylbenzene	20.0	22.61		ug/L		113	70 - 140
1,3,5-Trimethylbenzene	20.0	25.40		ug/L		127	70 - 140
Vinyl chloride	20.0	23.53		ug/L		118	45 - 135
Xylenes, Total	40.0	51.77		ug/L		129	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*75 - 110*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 310-47080/7
Matrix: Water
Analysis Batch: 47080

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00		ug/L			05/03/14 09:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 110*		*05/03/14 09:06*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*05/03/14 09:06*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*05/03/14 09:06*	*1*

Lab Sample ID: LCS 310-47080/4
Matrix: Water
Analysis Batch: 47080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	30.0	31.39		ug/L		105	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-47080/4
Matrix: Water
Analysis Batch: 47080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 110*
Dibromofluoromethane (Surr)	*110*		*75 - 120*
Toluene-d8 (Surr)	*89*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-46788/3
Matrix: Water
Analysis Batch: 46788

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			04/30/14 08:32	1
Chloride	<1.00		1.00		mg/L			04/30/14 08:32	1

Lab Sample ID: LCS 310-46788/4
Matrix: Water
Analysis Batch: 46788

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.558		mg/L		96	90 - 110
Chloride	10.0	10.46		mg/L		105	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-46327/1-A
Matrix: Water
Analysis Batch: 46495

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		04/25/14 08:03	04/25/14 20:16	1
Manganese	<0.0100		0.0100		mg/L		04/25/14 08:03	04/25/14 20:16	1

Lab Sample ID: LCS 310-46327/2-A
Matrix: Water
Analysis Batch: 46495

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46327

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.014		mg/L		101	85 - 110
Manganese	1.00	1.023		mg/L		102	85 - 115

Lab Sample ID: 310-29313-5 MS
Matrix: Ground Water
Analysis Batch: 46495

Client Sample ID: MW-25S
Prep Type: Total/NA
Prep Batch: 46327

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	23.5		2.00	26.67	4	mg/L		158	75 - 125
Manganese	1.22		1.00	2.284		mg/L		106	80 - 115

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 310-29313-4 DU — **Client Sample ID: MW-25D**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46495 — **Prep Batch: 46327**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Iron	0.167			0.2161		mg/L				25	20
Manganese	0.111			0.1083		mg/L				2	15

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-46629/36 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/29/14 01:22	1

Lab Sample ID: MB 310-46629/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/28/14 16:34	1

Lab Sample ID: LCS 310-46629/37 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.854		mg/L		97	90 - 110

Lab Sample ID: MB 310-46943/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/29/14 19:13	1

Lab Sample ID: LCS 310-46943/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.942		mg/L		99	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-46280/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			04/24/14 12:25	1

Method: SM 4500 NO2 B - Nitrogen, Nitrite (Continued)

Lab Sample ID: LCS 310-46280/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.5420		mg/L		108	90 - 110

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-46277/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46277

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			04/24/14 11:32	1

Lab Sample ID: LCS 310-46277/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46277

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	16.8	17.42		mg/L		104	90 - 110

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 46296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-1	MW-64	Total/NA	Ground Water	8260C	
310-29313-2	MW-26D	Total/NA	Ground Water	8260C	
310-29313-3	MW-26S	Total/NA	Ground Water	8260C	
310-29313-4	MW-25D	Total/NA	Ground Water	8260C	
310-29313-5	MW-25S	Total/NA	Ground Water	8260C	
310-29313-6	Trip Blank	Total/NA	Water	8260C	
LCS 310-46296/5	Lab Control Sample	Total/NA	Water	8260C	
MB 310-46296/8	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 46763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-2	MW-26D	Total/NA	Ground Water	8260C	
310-29313-3	MW-26S	Total/NA	Ground Water	8260C	
310-29313-5	MW-25S	Total/NA	Ground Water	8260C	
LCS 310-46763/5	Lab Control Sample	Total/NA	Water	8260C	
MB 310-46763/8	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 46856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-1	MW-64	Total/NA	Ground Water	8260C	
LCS 310-46856/5	Lab Control Sample	Total/NA	Water	8260C	
MB 310-46856/8	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 47080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-3	MW-26S	Total/NA	Ground Water	8260C	
LCS 310-47080/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-47080/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 46788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-1	MW-64	Total/NA	Ground Water	9056A	
310-29313-2	MW-26D	Total/NA	Ground Water	9056A	
310-29313-3	MW-26S	Total/NA	Ground Water	9056A	
310-29313-4	MW-25D	Total/NA	Ground Water	9056A	
310-29313-5	MW-25S	Total/NA	Ground Water	9056A	
LCS 310-46788/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-46788/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 46327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-1	MW-64	Total/NA	Ground Water	3010A	
310-29313-2	MW-26D	Total/NA	Ground Water	3010A	
310-29313-3	MW-26S	Total/NA	Ground Water	3010A	
310-29313-4	MW-25D	Total/NA	Ground Water	3010A	
310-29313-4 DU	MW-25D	Total/NA	Ground Water	3010A	

Metals (Continued)

Prep Batch: 46327 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-5	MW-25S	Total/NA	Ground Water	3010A	
310-29313-5 MS	MW-25S	Total/NA	Ground Water	3010A	
LCS 310-46327/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-46327/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 46495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-1	MW-64	Total/NA	Ground Water	6010C	46327
310-29313-2	MW-26D	Total/NA	Ground Water	6010C	46327
310-29313-3	MW-26S	Total/NA	Ground Water	6010C	46327
310-29313-4	MW-25D	Total/NA	Ground Water	6010C	46327
310-29313-4 DU	MW-25D	Total/NA	Ground Water	6010C	46327
310-29313-5	MW-25S	Total/NA	Ground Water	6010C	46327
310-29313-5 MS	MW-25S	Total/NA	Ground Water	6010C	46327
LCS 310-46327/2-A	Lab Control Sample	Total/NA	Water	6010C	46327
MB 310-46327/1-A	Method Blank	Total/NA	Water	6010C	46327

General Chemistry

Analysis Batch: 46277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-1	MW-64	Total/NA	Ground Water	SM 4500 NO3 E	
310-29313-2	MW-26D	Total/NA	Ground Water	SM 4500 NO3 E	
310-29313-3	MW-26S	Total/NA	Ground Water	SM 4500 NO3 E	
310-29313-4	MW-25D	Total/NA	Ground Water	SM 4500 NO3 E	
310-29313-5	MW-25S	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-46277/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-46277/4	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 46280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-1	MW-64	Total/NA	Ground Water	SM 4500 NO2 B	
310-29313-2	MW-26D	Total/NA	Ground Water	SM 4500 NO2 B	
310-29313-3	MW-26S	Total/NA	Ground Water	SM 4500 NO2 B	
310-29313-4	MW-25D	Total/NA	Ground Water	SM 4500 NO2 B	
310-29313-5	MW-25S	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-46280/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-46280/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 46629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-46629/37	Lab Control Sample	Total/NA	Water	9060A	
MB 310-46629/36	Method Blank	Total/NA	Water	9060A	
MB 310-46629/5	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 46741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-1	MW-64	Total/NA	Ground Water	9060A	
310-29313-2	MW-26D	Total/NA	Ground Water	9060A	
310-29313-3	MW-26S	Total/NA	Ground Water	9060A	

General Chemistry (Continued)

Analysis Batch: 46741 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29313-4	MW-25D	Total/NA	Ground Water	9060A	
310-29313-5	MW-25S	Total/NA	Ground Water	9060A	

Analysis Batch: 46943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-46943/6	Lab Control Sample	Total/NA	Water	9060A	
MB 310-46943/5	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-64

Lab Sample ID: 310-29313-1
Date Collected: 04/23/14 08:40
Matrix: Ground Water
Date Received: 04/24/14 09:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46296	04/26/14 11:40	SJN	TAL CF
Total/NA	Analysis	8260C		1	46856	05/01/14 09:40	KNW	TAL CF
Total/NA	Analysis	9056A		5	46788	04/30/14 08:32	CDD	TAL CF
Total/NA	Prep	3010A			46327	04/25/14 08:03	SAV	TAL CF
Total/NA	Analysis	6010C		1	46495	04/25/14 20:42	OAD	TAL CF
Total/NA	Analysis	9060A		1	46741	04/29/14 10:45	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46280	04/24/14 14:37	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46277	04/24/14 14:44	JCF	TAL CF

Client Sample ID: MW-26D

Lab Sample ID: 310-29313-2
Date Collected: 04/23/14 12:35
Matrix: Ground Water
Date Received: 04/24/14 09:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46296	04/26/14 11:15	SJN	TAL CF
Total/NA	Analysis	8260C		1	46763	04/30/14 14:56	KNW	TAL CF
Total/NA	Analysis	9056A		5	46788	04/30/14 08:32	CDD	TAL CF
Total/NA	Prep	3010A			46327	04/25/14 08:03	SAV	TAL CF
Total/NA	Analysis	6010C		1	46495	04/25/14 20:44	OAD	TAL CF
Total/NA	Analysis	9060A		1	46741	04/29/14 13:13	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46280	04/24/14 14:37	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46277	04/24/14 14:46	JCF	TAL CF

Client Sample ID: MW-26S

Lab Sample ID: 310-29313-3
Date Collected: 04/23/14 13:25
Matrix: Ground Water
Date Received: 04/24/14 09:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46296	04/26/14 10:49	SJN	TAL CF
Total/NA	Analysis	8260C		100	46763	04/30/14 15:20	KNW	TAL CF
Total/NA	Analysis	8260C		1000	47080	05/03/14 10:19	KNW	TAL CF
Total/NA	Analysis	9056A		5	46788	04/30/14 08:32	CDD	TAL CF
Total/NA	Prep	3010A			46327	04/25/14 08:03	SAV	TAL CF
Total/NA	Analysis	6010C		1	46495	04/25/14 20:46	OAD	TAL CF
Total/NA	Analysis	9060A		1	46741	04/29/14 10:27	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46280	04/24/14 14:37	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46277	04/24/14 14:48	JCF	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Client Sample ID: MW-25D

Lab Sample ID: 310-29313-4

Date Collected: 04/23/14 14:40
Matrix: Ground Water
Date Received: 04/24/14 09:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46296	04/26/14 10:24	SJN	TAL CF
Total/NA	Analysis	9056A		5	46788	04/30/14 08:32	CDD	TAL CF
Total/NA	Prep	3010A			46327	04/25/14 08:03	SAV	TAL CF
Total/NA	Analysis	6010C		1	46495	04/25/14 20:48	OAD	TAL CF
Total/NA	Analysis	9060A		1	46741	04/29/14 13:29	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46280	04/24/14 14:37	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46277	04/24/14 14:52	JCF	TAL CF

Client Sample ID: MW-25S

Lab Sample ID: 310-29313-5

Date Collected: 04/23/14 15:30
Matrix: Ground Water
Date Received: 04/24/14 09:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	46296	04/26/14 14:12	SJN	TAL CF
Total/NA	Analysis	8260C		1000	46763	04/30/14 15:45	KNW	TAL CF
Total/NA	Analysis	9056A		5	46788	04/30/14 08:32	CDD	TAL CF
Total/NA	Prep	3010A			46327	04/25/14 08:03	SAV	TAL CF
Total/NA	Analysis	6010C		15	46495	04/25/14 21:03	OAD	TAL CF
Total/NA	Analysis	9060A		100	46741	04/29/14 11:22	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46280	04/24/14 14:37	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46277	04/24/14 14:55	JCF	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-29313-6

Date Collected: 04/23/14 00:00
Matrix: Water
Date Received: 04/24/14 09:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46296	04/26/14 09:59	SJN	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA	IHLAP		101044	11-01-14
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	7	12-01-13 *
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14
Oregon	NELAP	10	IA100001	09-29-14
Wisconsin	State Program	5	999917270	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29313-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Rece rm
Cedar Falls Facility

310-29313 Chain of Custody

Client: Golder Assoc. Project: Electrolux

City: State:

Date: 4 24 14 Receiver's Initials: TG Time (Delivered): 9:11

Temperature Record:

Cooler ID# (If Applicable): Dm.38

Uncorrected Temp: 3.3 °C

Corrected Temp: 3.4 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [x] IR "G" - 130195822
- [ ] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other:

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other:
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)*
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Andrew Koff
(Signature)

Your PO #: 103-87305
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: JPeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red & White Label)	Preservative: HCl (Blue & White Label)	Preservative: NaOH (Orange & White Label)	Preservative: H_2SO_4 Plastic (Yellow & White Label)	Preservative: H_2SO_4 Glass(Yellow & White Label)	Preservative: None (Black & White Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other Specify:Stormwater	Analyze For: 8260 Volatiles	Analyze For: Nitrate, Nitrite	Analyze For: Sulfate, Chloride	Analyze For: TOC	Analyze For: Iron, Manganese	E-mail results	Send QC with report
MW-64	4/23/14	840	6	X			X	X	X		X				X						X	X	X	X	X		
MW-26D		1235																									
MW-26S		1325																									
MW-25D		1440																									
MW-25S		1530																									
Trip Blank			3																		X						

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	4/23/14	1800						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	4/24/14	9:11						

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-64	310-29313-B-1	Plastic 250ml - with Nitric Acid	<2		
MW-64	310-29313-C-1	Plastic 250ml - with Sulfuric Acid	<2		
MW-26D	310-29313-B-2	Plastic 250ml - with Nitric Acid	<2		
MW-26D	310-29313-C-2	Plastic 250ml - with Sulfuric Acid	<2		
MW-26S	310-29313-B-3	Plastic 250ml - with Nitric Acid	<2		
MW-26S	310-29313-C-3	Plastic 250ml - with Sulfuric Acid	<2		
MW-25D	310-29313-B-4	Plastic 250ml - with Nitric Acid	<2		
MW-25D	310-29313-C-4	Plastic 250ml - with Sulfuric Acid	<2		
MW-25S	310-29313-B-5	Plastic 250ml - with Nitric Acid	<2		
MW-25S	310-29313-C-5	Plastic 250ml - with Sulfuric Acid	<2		

CMH
4-24-14

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-29313-1
SDG Number: 103-87305

Login Number: 29313
List Number: 1
Creator: Fobian, Norma F

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-29420-1
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
5/6/2014 1:01:39 PM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-29420-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-29420-1

Comments
No additional comments.

Receipt
The samples were received on 4/25/2014 9:18 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.0º C and 0.0º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 46760 recovered above the upper control limit for Vinyl chloride (26.0%). The LCS passes CCV criteria; therefore, the data have been reported. The following samples are impacted: (CCV 310-46760/4).

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method(s) 9056A: The following samples were diluted due to the nature of the sample matrix: MW-63 (310-29420-1), MW-46 (310-29420-3), and MW-61 (310-29420-2). Elevated reporting limits (RLs) are provided for chloride.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-29420-1	MW-63	Ground Water	04/24/14 14:25	04/25/14 09:18
310-29420-2	MW-61	Ground Water	04/24/14 12:40	04/25/14 09:18
310-29420-3	MW-46	Ground Water	04/24/14 11:15	04/25/14 09:18
310-29420-4	MW-29	Ground Water	04/24/14 10:05	04/25/14 09:18
310-29420-5	MW-47D	Ground Water	04/24/14 08:20	04/25/14 09:18
310-29420-6	MW-28	Ground Water	04/24/14 07:15	04/25/14 09:18
310-29420-7	DUP-01	Ground Water	04/24/14 00:00	04/25/14 09:18
310-29420-8	MW-57	Ground Water	04/24/14 15:40	04/25/14 09:18
310-29420-9	DUP-02	Ground Water	04/24/14 00:00	04/25/14 09:18
310-29420-10	MW-43D	Ground Water	04/24/14 16:50	04/25/14 09:18
310-29420-11	Trip Blank	Ground Water	04/24/14 00:00	04/25/14 09:18

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-63 — Lab Sample ID: 310-29420-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	157		5.00		mg/L	5		9056A	Total/NA
Iron	0.181		0.100		mg/L	1		6010C	Total/NA
Manganese	1.58		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.25		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-61 — Lab Sample ID: 310-29420-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	73.3		5.00		mg/L	5		9056A	Total/NA
Total Organic Carbon	6.11		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.397		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-46 — Lab Sample ID: 310-29420-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.61		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	424		10.0		ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	3.71		1.00		ug/L	1		8260C	Total/NA
Tetrachloroethene	1.23		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	1640		10.0		ug/L	10		8260C	Total/NA
Sulfate	27.7		5.00		mg/L	5		9056A	Total/NA
Iron	0.210		0.100		mg/L	1		6010C	Total/NA
Manganese	0.643		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.08		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-29 — Lab Sample ID: 310-29420-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	48.8		1.00		ug/L	1		8260C	Total/NA
1,2-Dichloroethane	11.5		1.00		ug/L	1		8260C	Total/NA
1,1-Dichloroethene	475		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	745		100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	12.0		1.00		ug/L	1		8260C	Total/NA
Tetrachloroethene	20.2		1.00		ug/L	1		8260C	Total/NA
Toluene	1.45		1.00		ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	16.6		1.00		ug/L	1		8260C	Total/NA
1,1,2-Trichloroethane	4.99		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	70500		1000		ug/L	1000		8260C	Total/NA
Vinyl chloride	9.95		1.00		ug/L	1		8260C	Total/NA
Sulfate	139		5.00		mg/L	5		9056A	Total/NA
Chloride	48.5		5.00		mg/L	5		9056A	Total/NA
Iron	0.193		0.100		mg/L	1		6010C	Total/NA
Manganese	0.182		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	4.90		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.177		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-47D — Lab Sample ID: 310-29420-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	176		2.00		ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-47D (Continued) — Lab Sample ID: 310-29420-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	19500		100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	161		1.00		ug/L	1		8260C	Total/NA
Tetrachloroethene	3.47		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	43200		100		ug/L	100		8260C	Total/NA
Vinyl chloride	388		1.00		ug/L	1		8260C	Total/NA
Sulfate	25.4		5.00		mg/L	5		9056A	Total/NA
Chloride	144		5.00		mg/L	5		9056A	Total/NA
Iron	0.613		0.100		mg/L	1		6010C	Total/NA
Manganese	0.729		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.42		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-28 — Lab Sample ID: 310-29420-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.832		0.500		ug/L	1		8260C	Total/NA
1,1-Dichloroethane	5.57		1.00		ug/L	1		8260C	Total/NA
1,2-Dichloroethane	2.10		1.00		ug/L	1		8260C	Total/NA
1,1-Dichloroethene	157		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	102000		1000		ug/L	1000		8260C	Total/NA
trans-1,2-Dichloroethene	895		100		ug/L	100		8260C	Total/NA
Tetrachloroethene	42.6		1.00		ug/L	1		8260C	Total/NA
Toluene	2.37		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	48600		100		ug/L	100		8260C	Total/NA
Vinyl chloride	10500		100		ug/L	100		8260C	Total/NA
Xylenes, Total	3.33		3.00		ug/L	1		8260C	Total/NA
Sulfate	43.1		5.00		mg/L	5		9056A	Total/NA
Chloride	217		5.00		mg/L	5		9056A	Total/NA
Iron	1.22		0.300		mg/L	3		6010C	Total/NA
Manganese	1.04		0.0300		mg/L	3		6010C	Total/NA
Total Organic Carbon	30.1		4.00		mg/L	4		9060A	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 310-29420-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	175		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	21900		100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	343		1.00		ug/L	1		8260C	Total/NA
Tetrachloroethene	3.56		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	43100		100		ug/L	100		8260C	Total/NA
Vinyl chloride	392		1.00		ug/L	1		8260C	Total/NA
Sulfate	25.0		5.00		mg/L	5		9056A	Total/NA
Chloride	143		5.00		mg/L	5		9056A	Total/NA
Iron	1.70		0.100		mg/L	1		6010C	Total/NA
Manganese	0.747		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.52		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-57 — Lab Sample ID: 310-29420-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.64		2.00		ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-57 (Continued) — Lab Sample ID: 310-29420-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	7.91		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	953		10.0		ug/L	10		8260C	Total/NA
Sulfate	54.4		5.00		mg/L	5		9056A	Total/NA
Chloride	15.1		5.00		mg/L	5		9056A	Total/NA
Iron	0.217		0.100		mg/L	1		6010C	Total/NA
Manganese	0.701		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.89		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 310-29420-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.97		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	8.11		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	865		10.0		ug/L	10		8260C	Total/NA
Sulfate	55.1		5.00		mg/L	5		9056A	Total/NA
Chloride	15.0		5.00		mg/L	5		9056A	Total/NA
Iron	0.202		0.100		mg/L	1		6010C	Total/NA
Manganese	0.648		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.12		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-43D — Lab Sample ID: 310-29420-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	20.1		5.00		mg/L	5		9056A	Total/NA
Chloride	11.0		5.00		mg/L	5		9056A	Total/NA
Iron	0.255		0.100		mg/L	1		6010C	Total/NA
Manganese	0.454		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.25		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.403		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-29420-11

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-63

Date Collected: 04/24/14 14:25
Date Received: 04/25/14 09:18

Lab Sample ID: 310-29420-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 19:17	1
Benzene	<0.500		0.500		ug/L			04/26/14 19:17	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 19:17	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 19:17	1
Bromoform	<5.00		5.00		ug/L			04/26/14 19:17	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 19:17	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 19:17	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 19:17	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 19:17	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 19:17	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 19:17	1
Chloroform	<1.00		1.00		ug/L			04/26/14 19:17	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 19:17	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 19:17	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 19:17	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 19:17	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 19:17	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 19:17	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 19:17	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/26/14 19:17	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 19:17	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/26/14 19:17	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 19:17	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 19:17	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 19:17	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 19:17	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 19:17	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 19:17	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 19:17	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 19:17	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 19:17	1
Hexane	<1.00		1.00		ug/L			04/26/14 19:17	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 19:17	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 19:17	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 19:17	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 19:17	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
Styrene	<1.00		1.00		ug/L			04/26/14 19:17	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 19:17	1

Client Sample ID: MW-63

Lab Sample ID: 310-29420-1

Date Collected: 04/24/14 14:25

Matrix: Ground Water

Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 19:17	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 19:17	1
Toluene	<1.00		1.00		ug/L			04/26/14 19:17	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 19:17	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 19:17	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 19:17	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 19:17	1
Trichloroethene	<1.00		1.00		ug/L			04/26/14 19:17	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 19:17	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 19:17	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 19:17	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 19:17	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 110*		*04/26/14 19:17*	*1*
Dibromofluoromethane (Surr)	*116*		*75 - 120*		*04/26/14 19:17*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*04/26/14 19:17*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**157**		5.00		mg/L			04/30/14 16:47	5
Chloride	<5.00		5.00		mg/L			04/30/14 16:47	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.181**		0.100		mg/L		04/29/14 08:07	04/29/14 23:32	1
Manganese	**1.58**		0.0100		mg/L		04/29/14 08:07	04/29/14 23:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.25**		1.00		mg/L			04/28/14 22:27	1
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1
Nitrate as N	<0.100		0.100		mg/L			04/25/14 16:07	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-61
Date Collected: 04/24/14 12:40
Date Received: 04/25/14 09:18

Lab Sample ID: 310-29420-2
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 18:51	1
Benzene	<0.500		0.500		ug/L			04/26/14 18:51	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 18:51	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 18:51	1
Bromoform	<5.00		5.00		ug/L			04/26/14 18:51	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 18:51	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 18:51	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 18:51	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 18:51	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 18:51	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 18:51	1
Chloroform	<1.00		1.00		ug/L			04/26/14 18:51	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 18:51	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 18:51	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 18:51	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 18:51	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 18:51	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 18:51	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 18:51	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/26/14 18:51	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 18:51	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/26/14 18:51	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 18:51	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 18:51	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 18:51	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 18:51	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 18:51	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 18:51	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 18:51	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 18:51	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 18:51	1
Hexane	<1.00		1.00		ug/L			04/26/14 18:51	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 18:51	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 18:51	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 18:51	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 18:51	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
Styrene	<1.00		1.00		ug/L			04/26/14 18:51	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 18:51	1

Client Sample ID: MW-61

Lab Sample ID: 310-29420-2

Date Collected: 04/24/14 12:40

Matrix: Ground Water

Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 18:51	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 18:51	1
Toluene	<1.00		1.00		ug/L			04/26/14 18:51	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 18:51	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 18:51	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 18:51	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 18:51	1
Trichloroethene	<1.00		1.00		ug/L			04/30/14 21:26	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 18:51	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 18:51	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 18:51	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 18:51	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*75 - 110*		*04/26/14 18:51*	*1*
4-Bromofluorobenzene (Surr)	*90*		*75 - 110*		*04/30/14 21:26*	*1*
Dibromofluoromethane (Surr)	*115*		*75 - 120*		*04/26/14 18:51*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*04/30/14 21:26*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/26/14 18:51*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/30/14 21:26*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**73.3**		5.00		mg/L			04/30/14 16:47	5
Chloride	<5.00		5.00		mg/L			04/30/14 16:47	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		04/29/14 08:07	04/29/14 23:40	1
Manganese	<0.0100		0.0100		mg/L		04/29/14 08:07	04/29/14 23:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**6.11**		1.00		mg/L			04/30/14 03:29	1
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1
Nitrate as N	**0.397**		0.100		mg/L			04/25/14 16:09	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-46

Lab Sample ID: 310-29420-3

Date Collected: 04/24/14 11:15
Matrix: Ground Water
Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 18:26	1
Benzene	<0.500		0.500		ug/L			04/26/14 18:26	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 18:26	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 18:26	1
Bromoform	<5.00		5.00		ug/L			04/26/14 18:26	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 18:26	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 18:26	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 18:26	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 18:26	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 18:26	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 18:26	1
Chloroform	<1.00		1.00		ug/L			04/26/14 18:26	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 18:26	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 18:26	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 18:26	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 18:26	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 18:26	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 18:26	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 18:26	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/26/14 18:26	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 18:26	1
1,1-Dichloroethene	**2.61**		2.00		ug/L			04/26/14 18:26	1
cis-1,2-Dichloroethene	**424**		10.0		ug/L			04/30/14 22:16	10
trans-1,2-Dichloroethene	**3.71**		1.00		ug/L			04/26/14 18:26	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 18:26	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 18:26	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 18:26	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 18:26	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 18:26	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 18:26	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 18:26	1
Hexane	<1.00		1.00		ug/L			04/26/14 18:26	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 18:26	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 18:26	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 18:26	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 18:26	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
Styrene	<1.00		1.00		ug/L			04/26/14 18:26	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 18:26	1

Client Sample ID: MW-46

Lab Sample ID: 310-29420-3

Date Collected: 04/24/14 11:15

Matrix: Ground Water

Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 18:26	1
Tetrachloroethene	**1.23**		1.00		ug/L			04/26/14 18:26	1
Toluene	<1.00		1.00		ug/L			04/26/14 18:26	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 18:26	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 18:26	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 18:26	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 18:26	1
Trichloroethene	**1640**		10.0		ug/L			04/30/14 22:16	10
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 18:26	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 18:26	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 18:26	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 18:26	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 110*		*04/26/14 18:26*	*1*
4-Bromofluorobenzene (Surr)	*96*		*75 - 110*		*04/30/14 22:16*	*10*
Dibromofluoromethane (Surr)	*116*		*75 - 120*		*04/26/14 18:26*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 120*		*04/30/14 22:16*	*10*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/26/14 18:26*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/30/14 22:16*	*10*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**27.7**		5.00		mg/L			04/30/14 16:47	5
Chloride	<5.00		5.00		mg/L			04/30/14 16:47	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.210**		0.100		mg/L		04/29/14 08:07	04/29/14 23:42	1
Manganese	**0.643**		0.0100		mg/L		04/29/14 08:07	04/29/14 23:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.08**		1.00		mg/L			04/29/14 12:14	1
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1
Nitrate as N	<0.100		0.100		mg/L			04/25/14 16:12	1

Client Sample ID: MW-29

Lab Sample ID: 310-29420-4

Date Collected: 04/24/14 10:05

Matrix: Ground Water

Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/27/14 02:02	1
Benzene	<0.500		0.500		ug/L			04/27/14 02:02	1
Bromobenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
Bromochloromethane	<5.00		5.00		ug/L			04/27/14 02:02	1
Bromodichloromethane	<1.00		1.00		ug/L			04/27/14 02:02	1
Bromoform	<5.00		5.00		ug/L			04/27/14 02:02	1
Bromomethane	<4.00		4.00		ug/L			04/27/14 02:02	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/27/14 02:02	1
n-Butylbenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
Carbon disulfide	<1.00		1.00		ug/L			04/27/14 02:02	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/27/14 02:02	1
Chlorobenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/27/14 02:02	1
Chloroethane	<4.00		4.00		ug/L			04/27/14 02:02	1
Chloroform	<1.00		1.00		ug/L			04/27/14 02:02	1
Chloromethane	<3.00		3.00		ug/L			04/27/14 02:02	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/27/14 02:02	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/27/14 02:02	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/27/14 02:02	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/27/14 02:02	1
Dibromomethane	<1.00		1.00		ug/L			04/27/14 02:02	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/27/14 02:02	1
1,1-Dichloroethane	**48.8**		1.00		ug/L			04/27/14 02:02	1
1,2-Dichloroethane	**11.5**		1.00		ug/L			04/27/14 02:02	1
1,1-Dichloroethene	**475**		2.00		ug/L			04/27/14 02:02	1
cis-1,2-Dichloroethene	**745**		100		ug/L			04/30/14 23:32	100
trans-1,2-Dichloroethene	**12.0**		1.00		ug/L			04/27/14 02:02	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/27/14 02:02	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/27/14 02:02	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/27/14 02:02	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/27/14 02:02	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/27/14 02:02	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/27/14 02:02	1
Ethylbenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/27/14 02:02	1
Hexane	<1.00		1.00		ug/L			04/27/14 02:02	1
Isopropylbenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/27/14 02:02	1
Methylene Chloride	<5.00		5.00		ug/L			04/27/14 02:02	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/27/14 02:02	1
Naphthalene	<5.00		5.00		ug/L			04/27/14 02:02	1
N-Propylbenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
Styrene	<1.00		1.00		ug/L			04/27/14 02:02	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/27/14 02:02	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-29

Date Collected: 04/24/14 10:05
Date Received: 04/25/14 09:18

Lab Sample ID: 310-29420-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/27/14 02:02	1
Tetrachloroethene	**20.2**		1.00		ug/L			04/27/14 02:02	1
Toluene	**1.45**		1.00		ug/L			04/27/14 02:02	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/27/14 02:02	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/27/14 02:02	1
1,1,1-Trichloroethane	**16.6**		1.00		ug/L			04/27/14 02:02	1
1,1,2-Trichloroethane	**4.99**		1.00		ug/L			04/27/14 02:02	1
Trichloroethene	**70500**		1000		ug/L			05/03/14 10:44	1000
Trichlorofluoromethane	<4.00		4.00		ug/L			04/27/14 02:02	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/27/14 02:02	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/27/14 02:02	1
Vinyl chloride	**9.95**		1.00		ug/L			04/27/14 02:02	1
Xylenes, Total	<3.00		3.00		ug/L			04/27/14 02:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*75 - 110*		*04/27/14 02:02*	*1*
4-Bromofluorobenzene (Surr)	*96*		*75 - 110*		*04/30/14 23:32*	*100*
4-Bromofluorobenzene (Surr)	*100*		*75 - 110*		*05/03/14 10:44*	*1000*
Dibromofluoromethane (Surr)	*108*		*75 - 120*		*04/27/14 02:02*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 120*		*04/30/14 23:32*	*100*
Dibromofluoromethane (Surr)	*104*		*75 - 120*		*05/03/14 10:44*	*1000*
Toluene-d8 (Surr)	*100*		*80 - 120*		*04/27/14 02:02*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/30/14 23:32*	*100*
Toluene-d8 (Surr)	*87*		*80 - 120*		*05/03/14 10:44*	*1000*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**139**		5.00		mg/L			04/30/14 17:09	5
Chloride	**48.5**		5.00		mg/L			04/30/14 17:09	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.193**		0.100		mg/L		04/29/14 08:07	04/29/14 23:44	1
Manganese	**0.182**		0.0100		mg/L		04/29/14 08:07	04/29/14 23:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.90**		1.00		mg/L			04/29/14 14:07	1
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1
Nitrate as N	**0.177**		0.100		mg/L			04/25/14 16:15	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-47D
Date Collected: 04/24/14 08:20
Date Received: 04/25/14 09:18

Lab Sample ID: 310-29420-5
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/27/14 01:36	1
Benzene	<0.500		0.500		ug/L			04/27/14 01:36	1
Bromobenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
Bromochloromethane	<5.00		5.00		ug/L			04/27/14 01:36	1
Bromodichloromethane	<1.00		1.00		ug/L			04/27/14 01:36	1
Bromoform	<5.00		5.00		ug/L			04/27/14 01:36	1
Bromomethane	<4.00		4.00		ug/L			04/27/14 01:36	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/27/14 01:36	1
n-Butylbenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
Carbon disulfide	<1.00		1.00		ug/L			04/27/14 01:36	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/27/14 01:36	1
Chlorobenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/27/14 01:36	1
Chloroethane	<4.00		4.00		ug/L			04/27/14 01:36	1
Chloroform	<1.00		1.00		ug/L			04/27/14 01:36	1
Chloromethane	<3.00		3.00		ug/L			04/27/14 01:36	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/27/14 01:36	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/27/14 01:36	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/27/14 01:36	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/27/14 01:36	1
Dibromomethane	<1.00		1.00		ug/L			04/27/14 01:36	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/27/14 01:36	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/27/14 01:36	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/27/14 01:36	1
1,1-Dichloroethene	**176**		2.00		ug/L			04/27/14 01:36	1
cis-1,2-Dichloroethene	**19500**		100		ug/L			04/30/14 23:58	100
trans-1,2-Dichloroethene	**161**		1.00		ug/L			04/27/14 01:36	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/27/14 01:36	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/27/14 01:36	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/27/14 01:36	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/27/14 01:36	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/27/14 01:36	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/27/14 01:36	1
Ethylbenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/27/14 01:36	1
Hexane	<1.00		1.00		ug/L			04/27/14 01:36	1
Isopropylbenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/27/14 01:36	1
Methylene Chloride	<5.00		5.00		ug/L			04/27/14 01:36	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/27/14 01:36	1
Naphthalene	<5.00		5.00		ug/L			04/27/14 01:36	1
N-Propylbenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
Styrene	<1.00		1.00		ug/L			04/27/14 01:36	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/27/14 01:36	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-47D

Date Collected: 04/24/14 08:20
Date Received: 04/25/14 09:18

Lab Sample ID: 310-29420-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/27/14 01:36	1
Tetrachloroethene	**3.47**		1.00		ug/L			04/27/14 01:36	1
Toluene	<1.00		1.00		ug/L			04/27/14 01:36	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/27/14 01:36	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/27/14 01:36	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/27/14 01:36	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/27/14 01:36	1
Trichloroethene	**43200**		100		ug/L			04/30/14 23:58	100
Trichlorofluoromethane	<4.00		4.00		ug/L			04/27/14 01:36	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/27/14 01:36	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/27/14 01:36	1
Vinyl chloride	**388**		1.00		ug/L			04/27/14 01:36	1
Xylenes, Total	<3.00		3.00		ug/L			04/27/14 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 110*		*04/27/14 01:36*	*1*
4-Bromofluorobenzene (Surr)	*94*		*75 - 110*		*04/30/14 23:58*	*100*
Dibromofluoromethane (Surr)	*113*		*75 - 120*		*04/27/14 01:36*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*04/30/14 23:58*	*100*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/27/14 01:36*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/30/14 23:58*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**25.4**		5.00		mg/L			04/30/14 17:09	5
Chloride	**144**		5.00		mg/L			04/30/14 17:09	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.613**		0.100		mg/L		04/29/14 08:07	04/29/14 23:46	1
Manganese	**0.729**		0.0100		mg/L		04/29/14 08:07	04/29/14 23:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.42**		1.00		mg/L			04/29/14 01:05	1
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1
Nitrate as N	<0.100		0.100		mg/L			04/25/14 16:17	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-28

Date Collected: 04/24/14 07:15
Date Received: 04/25/14 09:18

Lab Sample ID: 310-29420-6

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/27/14 01:11	1
Benzene	**0.832**		0.500		ug/L			04/27/14 01:11	1
Bromobenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
Bromochloromethane	<5.00		5.00		ug/L			04/27/14 01:11	1
Bromodichloromethane	<1.00		1.00		ug/L			04/27/14 01:11	1
Bromoform	<5.00		5.00		ug/L			04/27/14 01:11	1
Bromomethane	<4.00		4.00		ug/L			04/27/14 01:11	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/27/14 01:11	1
n-Butylbenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
Carbon disulfide	<1.00		1.00		ug/L			04/27/14 01:11	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/27/14 01:11	1
Chlorobenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/27/14 01:11	1
Chloroethane	<4.00		4.00		ug/L			04/27/14 01:11	1
Chloroform	<1.00		1.00		ug/L			04/27/14 01:11	1
Chloromethane	<3.00		3.00		ug/L			04/27/14 01:11	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/27/14 01:11	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/27/14 01:11	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/27/14 01:11	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/27/14 01:11	1
Dibromomethane	<1.00		1.00		ug/L			04/27/14 01:11	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/27/14 01:11	1
1,1-Dichloroethane	**5.57**		1.00		ug/L			04/27/14 01:11	1
1,2-Dichloroethane	**2.10**		1.00		ug/L			04/27/14 01:11	1
1,1-Dichloroethene	**157**		2.00		ug/L			04/27/14 01:11	1
cis-1,2-Dichloroethene	**102000**		1000		ug/L			05/03/14 11:08	1000
trans-1,2-Dichloroethene	**895**		100		ug/L			05/01/14 00:23	100
1,2-Dichloropropane	<1.00		1.00		ug/L			04/27/14 01:11	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/27/14 01:11	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/27/14 01:11	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/27/14 01:11	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/27/14 01:11	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/27/14 01:11	1
Ethylbenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/27/14 01:11	1
Hexane	<1.00		1.00		ug/L			04/27/14 01:11	1
Isopropylbenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/27/14 01:11	1
Methylene Chloride	<5.00		5.00		ug/L			04/27/14 01:11	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/27/14 01:11	1
Naphthalene	<5.00		5.00		ug/L			04/27/14 01:11	1
N-Propylbenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
Styrene	<1.00		1.00		ug/L			04/27/14 01:11	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/27/14 01:11	1

Client Sample ID: MW-28

Lab Sample ID: 310-29420-6

Date Collected: 04/24/14 07:15

Matrix: Ground Water

Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/27/14 01:11	1
Tetrachloroethene	**42.6**		1.00		ug/L			04/27/14 01:11	1
Toluene	**2.37**		1.00		ug/L			04/27/14 01:11	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/27/14 01:11	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/27/14 01:11	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/27/14 01:11	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/27/14 01:11	1
Trichloroethene	**48600**		100		ug/L			05/01/14 00:23	100
Trichlorofluoromethane	<4.00		4.00		ug/L			04/27/14 01:11	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/27/14 01:11	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/27/14 01:11	1
Vinyl chloride	**10500**		100		ug/L			05/01/14 00:23	100
Xylenes, Total	**3.33**		3.00		ug/L			04/27/14 01:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 110*		*04/27/14 01:11*	*1*
4-Bromofluorobenzene (Surr)	*92*		*75 - 110*		*05/01/14 00:23*	*100*
4-Bromofluorobenzene (Surr)	*98*		*75 - 110*		*05/03/14 11:08*	*1000*
Dibromofluoromethane (Surr)	*113*		*75 - 120*		*04/27/14 01:11*	*1*
Dibromofluoromethane (Surr)	*114*		*75 - 120*		*05/01/14 00:23*	*100*
Dibromofluoromethane (Surr)	*109*		*75 - 120*		*05/03/14 11:08*	*1000*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/27/14 01:11*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/01/14 00:23*	*100*
Toluene-d8 (Surr)	*88*		*80 - 120*		*05/03/14 11:08*	*1000*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**43.1**		5.00		mg/L			04/30/14 17:09	5
Chloride	**217**		5.00		mg/L			04/30/14 17:09	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.22**		0.300		mg/L		04/29/14 08:07	04/30/14 17:07	3
Manganese	**1.04**		0.0300		mg/L		04/29/14 08:07	04/30/14 17:07	3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**30.1**		4.00		mg/L			04/29/14 11:04	4
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1
Nitrate as N	<0.100		0.100		mg/L			04/25/14 16:19	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: DUP-01
Date Collected: 04/24/14 00:00
Date Received: 04/25/14 09:18

Lab Sample ID: 310-29420-7
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/27/14 00:45	1
Benzene	<0.500		0.500		ug/L			04/27/14 00:45	1
Bromobenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
Bromochloromethane	<5.00		5.00		ug/L			04/27/14 00:45	1
Bromodichloromethane	<1.00		1.00		ug/L			04/27/14 00:45	1
Bromoform	<5.00		5.00		ug/L			04/27/14 00:45	1
Bromomethane	<4.00		4.00		ug/L			04/27/14 00:45	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/27/14 00:45	1
n-Butylbenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
Carbon disulfide	<1.00		1.00		ug/L			04/27/14 00:45	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/27/14 00:45	1
Chlorobenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/27/14 00:45	1
Chloroethane	<4.00		4.00		ug/L			04/27/14 00:45	1
Chloroform	<1.00		1.00		ug/L			04/27/14 00:45	1
Chloromethane	<3.00		3.00		ug/L			04/27/14 00:45	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/27/14 00:45	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/27/14 00:45	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/27/14 00:45	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/27/14 00:45	1
Dibromomethane	<1.00		1.00		ug/L			04/27/14 00:45	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/27/14 00:45	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/27/14 00:45	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/27/14 00:45	1
1,1-Dichloroethene	**175**		2.00		ug/L			04/27/14 00:45	1
cis-1,2-Dichloroethene	**21900**		100		ug/L			05/01/14 00:48	100
trans-1,2-Dichloroethene	**343**		1.00		ug/L			04/27/14 00:45	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/27/14 00:45	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/27/14 00:45	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/27/14 00:45	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/27/14 00:45	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/27/14 00:45	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/27/14 00:45	1
Ethylbenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/27/14 00:45	1
Hexane	<1.00		1.00		ug/L			04/27/14 00:45	1
Isopropylbenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/27/14 00:45	1
Methylene Chloride	<5.00		5.00		ug/L			04/27/14 00:45	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/27/14 00:45	1
Naphthalene	<5.00		5.00		ug/L			04/27/14 00:45	1
N-Propylbenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
Styrene	<1.00		1.00		ug/L			04/27/14 00:45	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/27/14 00:45	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: DUP-01

Date Collected: 04/24/14 00:00
Date Received: 04/25/14 09:18

Lab Sample ID: 310-29420-7

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/27/14 00:45	1
Tetrachloroethene	**3.56**		1.00		ug/L			04/27/14 00:45	1
Toluene	<1.00		1.00		ug/L			04/27/14 00:45	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/27/14 00:45	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/27/14 00:45	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/27/14 00:45	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/27/14 00:45	1
Trichloroethene	**43100**		100		ug/L			05/01/14 00:48	100
Trichlorofluoromethane	<4.00		4.00		ug/L			04/27/14 00:45	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/27/14 00:45	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/27/14 00:45	1
Vinyl chloride	**392**		1.00		ug/L			04/27/14 00:45	1
Xylenes, Total	<3.00		3.00		ug/L			04/27/14 00:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 110*		*04/27/14 00:45*	*1*
4-Bromofluorobenzene (Surr)	*94*		*75 - 110*		*05/01/14 00:48*	*100*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*04/27/14 00:45*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*05/01/14 00:48*	*100*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/27/14 00:45*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/14 00:48*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**25.0**		5.00		mg/L			04/30/14 17:23	5
Chloride	**143**		5.00		mg/L			04/30/14 17:23	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.70**		0.100		mg/L		04/29/14 08:07	04/29/14 23:50	1
Manganese	**0.747**		0.0100		mg/L		04/29/14 08:07	04/29/14 23:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.52**		1.00		mg/L			04/29/14 00:08	1
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1
Nitrate as N	<0.100		0.100		mg/L			04/25/14 16:23	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-57

Lab Sample ID: 310-29420-8

Date Collected: 04/24/14 15:40
Matrix: Ground Water
Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/27/14 00:20	1
Benzene	<0.500		0.500		ug/L			04/27/14 00:20	1
Bromobenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
Bromochloromethane	<5.00		5.00		ug/L			04/27/14 00:20	1
Bromodichloromethane	<1.00		1.00		ug/L			04/27/14 00:20	1
Bromoform	<5.00		5.00		ug/L			04/27/14 00:20	1
Bromomethane	<4.00		4.00		ug/L			04/27/14 00:20	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/27/14 00:20	1
n-Butylbenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
Carbon disulfide	<1.00		1.00		ug/L			04/27/14 00:20	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/27/14 00:20	1
Chlorobenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/27/14 00:20	1
Chloroethane	<4.00		4.00		ug/L			04/27/14 00:20	1
Chloroform	<1.00		1.00		ug/L			04/27/14 00:20	1
Chloromethane	<3.00		3.00		ug/L			04/27/14 00:20	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/27/14 00:20	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/27/14 00:20	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/27/14 00:20	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/27/14 00:20	1
Dibromomethane	<1.00		1.00		ug/L			04/27/14 00:20	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/27/14 00:20	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/27/14 00:20	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/27/14 00:20	1
1,1-Dichloroethene	**2.64**		2.00		ug/L			04/27/14 00:20	1
cis-1,2-Dichloroethene	**7.91**		1.00		ug/L			04/27/14 00:20	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/27/14 00:20	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/27/14 00:20	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/27/14 00:20	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/27/14 00:20	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/27/14 00:20	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/27/14 00:20	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/27/14 00:20	1
Ethylbenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/27/14 00:20	1
Hexane	<1.00		1.00		ug/L			04/27/14 00:20	1
Isopropylbenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/27/14 00:20	1
Methylene Chloride	<5.00		5.00		ug/L			04/27/14 00:20	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/27/14 00:20	1
Naphthalene	<5.00		5.00		ug/L			04/27/14 00:20	1
N-Propylbenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
Styrene	<1.00		1.00		ug/L			04/27/14 00:20	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/27/14 00:20	1

Client Sample ID: MW-57

Lab Sample ID: 310-29420-8

Date Collected: 04/24/14 15:40

Matrix: Ground Water

Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/27/14 00:20	1
Tetrachloroethene	<1.00		1.00		ug/L			04/27/14 00:20	1
Toluene	<1.00		1.00		ug/L			04/27/14 00:20	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/27/14 00:20	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/27/14 00:20	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/27/14 00:20	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/27/14 00:20	1
Trichloroethene	**953**		10.0		ug/L			04/30/14 22:42	10
Trichlorofluoromethane	<4.00		4.00		ug/L			04/27/14 00:20	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/27/14 00:20	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/27/14 00:20	1
Vinyl chloride	<1.00		1.00		ug/L			04/27/14 00:20	1
Xylenes, Total	<3.00		3.00		ug/L			04/27/14 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 110*		*04/27/14 00:20*	*1*
4-Bromofluorobenzene (Surr)	*95*		*75 - 110*		*04/30/14 22:42*	*10*
Dibromofluoromethane (Surr)	*109*		*75 - 120*		*04/27/14 00:20*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*04/30/14 22:42*	*10*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/27/14 00:20*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/30/14 22:42*	*10*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**54.4**		5.00		mg/L			04/30/14 18:08	5
Chloride	**15.1**		5.00		mg/L			04/30/14 18:08	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.217**		0.100		mg/L		04/29/14 08:07	04/29/14 23:56	1
Manganese	**0.701**		0.0100		mg/L		04/29/14 08:07	04/29/14 23:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.89**		1.00		mg/L			04/29/14 11:39	1
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1
Nitrate as N	<0.100		0.100		mg/L			04/25/14 16:26	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: DUP-02

Lab Sample ID: 310-29420-9

Date Collected: 04/24/14 00:00

Matrix: Ground Water

Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 23:55	1
Benzene	<0.500		0.500		ug/L			04/26/14 23:55	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 23:55	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 23:55	1
Bromoform	<5.00		5.00		ug/L			04/26/14 23:55	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 23:55	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 23:55	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 23:55	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 23:55	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 23:55	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 23:55	1
Chloroform	<1.00		1.00		ug/L			04/26/14 23:55	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 23:55	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 23:55	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 23:55	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 23:55	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 23:55	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 23:55	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 23:55	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/26/14 23:55	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 23:55	1
1,1-Dichloroethene	**2.97**		2.00		ug/L			04/26/14 23:55	1
cis-1,2-Dichloroethene	**8.11**		1.00		ug/L			04/26/14 23:55	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 23:55	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 23:55	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 23:55	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 23:55	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 23:55	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 23:55	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 23:55	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 23:55	1
Hexane	<1.00		1.00		ug/L			04/26/14 23:55	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 23:55	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 23:55	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 23:55	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 23:55	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
Styrene	<1.00		1.00		ug/L			04/26/14 23:55	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 23:55	1

Client Sample ID: DUP-02

Lab Sample ID: 310-29420-9

Date Collected: 04/24/14 00:00

Matrix: Ground Water

Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 23:55	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 23:55	1
Toluene	<1.00		1.00		ug/L			04/26/14 23:55	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 23:55	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 23:55	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 23:55	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 23:55	1
Trichloroethene	**865**		10.0		ug/L			04/30/14 23:07	10
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 23:55	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 23:55	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 23:55	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 23:55	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 23:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*75 - 110*		*04/26/14 23:55*	*1*
4-Bromofluorobenzene (Surr)	*93*		*75 - 110*		*04/30/14 23:07*	*10*
Dibromofluoromethane (Surr)	*110*		*75 - 120*		*04/26/14 23:55*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*04/30/14 23:07*	*10*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/26/14 23:55*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/30/14 23:07*	*10*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**55.1**		5.00		mg/L			04/30/14 18:08	5
Chloride	**15.0**		5.00		mg/L			04/30/14 18:08	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.202**		0.100		mg/L		04/29/14 08:07	04/29/14 23:58	1
Manganese	**0.648**		0.0100		mg/L		04/29/14 08:07	04/29/14 23:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.12**		1.00		mg/L			04/28/14 18:20	1
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1
Nitrate as N	<0.100		0.100		mg/L			04/25/14 16:28	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-43D

Date Collected: 04/24/14 16:50
Date Received: 04/25/14 09:18

Lab Sample ID: 310-29420-10

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 23:30	1
Benzene	<0.500		0.500		ug/L			04/26/14 23:30	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 23:30	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 23:30	1
Bromoform	<5.00		5.00		ug/L			04/26/14 23:30	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 23:30	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 23:30	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 23:30	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 23:30	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 23:30	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 23:30	1
Chloroform	<1.00		1.00		ug/L			04/26/14 23:30	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 23:30	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 23:30	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 23:30	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 23:30	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 23:30	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 23:30	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 23:30	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/26/14 23:30	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 23:30	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/26/14 23:30	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 23:30	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 23:30	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 23:30	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 23:30	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 23:30	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 23:30	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 23:30	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 23:30	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 23:30	1
Hexane	<1.00		1.00		ug/L			04/26/14 23:30	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 23:30	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 23:30	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 23:30	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 23:30	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
Styrene	<1.00		1.00		ug/L			04/26/14 23:30	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 23:30	1

Client Sample ID: MW-43D

Date Collected: 04/24/14 16:50
Date Received: 04/25/14 09:18

Lab Sample ID: 310-29420-10

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 23:30	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 23:30	1
Toluene	<1.00		1.00		ug/L			04/26/14 23:30	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 23:30	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 23:30	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 23:30	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 23:30	1
Trichloroethene	<1.00		1.00		ug/L			04/26/14 23:30	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 23:30	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 23:30	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 23:30	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 23:30	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 110*		*04/26/14 23:30*	*1*
Dibromofluoromethane (Surr)	*114*		*75 - 120*		*04/26/14 23:30*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/26/14 23:30*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**20.1**		5.00		mg/L			04/30/14 18:08	5
Chloride	**11.0**		5.00		mg/L			04/30/14 18:08	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.255**		0.100		mg/L		04/29/14 08:07	04/30/14 00:00	1
Manganese	**0.454**		0.0100		mg/L		04/29/14 08:07	04/30/14 00:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.25**		1.00		mg/L			04/28/14 21:52	1
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1
Nitrate as N	**0.403**		0.100		mg/L			04/25/14 16:31	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-29420-11

Date Collected: 04/24/14 00:00
Matrix: Ground Water
Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 23:04	1
Benzene	<0.500		0.500		ug/L			04/26/14 23:04	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 23:04	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 23:04	1
Bromoform	<5.00		5.00		ug/L			04/26/14 23:04	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 23:04	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 23:04	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 23:04	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 23:04	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 23:04	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 23:04	1
Chloroform	<1.00		1.00		ug/L			04/26/14 23:04	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 23:04	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 23:04	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 23:04	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 23:04	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 23:04	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 23:04	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 23:04	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/26/14 23:04	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 23:04	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/26/14 23:04	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 23:04	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 23:04	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 23:04	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 23:04	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 23:04	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 23:04	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 23:04	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 23:04	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 23:04	1
Hexane	<1.00		1.00		ug/L			04/26/14 23:04	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 23:04	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 23:04	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 23:04	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 23:04	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
Styrene	<1.00		1.00		ug/L			04/26/14 23:04	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 23:04	1

Client Sample ID: Trip Blank

Lab Sample ID: 310-29420-11

Date Collected: 04/24/14 00:00

Matrix: Ground Water

Date Received: 04/25/14 09:18

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 23:04	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 23:04	1
Toluene	<1.00		1.00		ug/L			04/26/14 23:04	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 23:04	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 23:04	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 23:04	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 23:04	1
Trichloroethene	<1.00		1.00		ug/L			04/26/14 23:04	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 23:04	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 23:04	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 23:04	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 23:04	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 110*		*04/26/14 23:04*	*1*
Dibromofluoromethane (Surr)	*114*		*75 - 120*		*04/26/14 23:04*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*04/26/14 23:04*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-110)	(75-120)	(80-120)
310-29420-1	MW-63	102	116	94
310-29420-1 MS	MW-63	101	107	99
310-29420-1 MSD	MW-63	99	107	100
310-29420-2	MW-61	104	115	96
310-29420-2	MW-61	90	103	95
310-29420-3	MW-46	103	116	96
310-29420-3	MW-46	96	105	97
310-29420-4	MW-29	104	108	100
310-29420-4	MW-29	96	96	97
310-29420-4	MW-29	100	104	87
310-29420-5	MW-47D	101	113	103
310-29420-5	MW-47D	94	102	98
310-29420-6	MW-28	97	113	98
310-29420-6	MW-28	92	114	96
310-29420-6	MW-28	98	109	88
310-29420-7	DUP-01	102	107	98
310-29420-7	DUP-01	94	107	99
310-29420-8	MW-57	103	109	97
310-29420-8	MW-57	95	101	97
310-29420-9	DUP-02	109	110	97
310-29420-9	DUP-02	93	102	98
310-29420-10	MW-43D	100	114	95
310-29420-11	Trip Blank	102	114	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-110)	(75-120)	(80-120)
LCS 310-46299/5	Lab Control Sample	97	97	97
LCS 310-46760/5	Lab Control Sample	99	102	101
LCS 310-47080/4	Lab Control Sample	99	110	89
MB 310-46299/8	Method Blank	100	117	96
MB 310-46760/8	Method Blank	96	101	98
MB 310-47080/7	Method Blank	96	103	88

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-46299/8
Matrix: Water
Analysis Batch: 46299

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/26/14 18:01	1
Benzene	<0.500		0.500		ug/L			04/26/14 18:01	1
Bromobenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
Bromochloromethane	<5.00		5.00		ug/L			04/26/14 18:01	1
Bromodichloromethane	<1.00		1.00		ug/L			04/26/14 18:01	1
Bromoform	<5.00		5.00		ug/L			04/26/14 18:01	1
Bromomethane	<4.00		4.00		ug/L			04/26/14 18:01	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/26/14 18:01	1
n-Butylbenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
Carbon disulfide	<1.00		1.00		ug/L			04/26/14 18:01	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/26/14 18:01	1
Chlorobenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/26/14 18:01	1
Chloroethane	<4.00		4.00		ug/L			04/26/14 18:01	1
Chloroform	<1.00		1.00		ug/L			04/26/14 18:01	1
Chloromethane	<3.00		3.00		ug/L			04/26/14 18:01	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 18:01	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/26/14 18:01	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/26/14 18:01	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/26/14 18:01	1
Dibromomethane	<1.00		1.00		ug/L			04/26/14 18:01	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/26/14 18:01	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/26/14 18:01	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/26/14 18:01	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/26/14 18:01	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 18:01	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/26/14 18:01	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/26/14 18:01	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/26/14 18:01	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/26/14 18:01	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/26/14 18:01	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 18:01	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/26/14 18:01	1
Ethylbenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/26/14 18:01	1
Hexane	<1.00		1.00		ug/L			04/26/14 18:01	1
Isopropylbenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/26/14 18:01	1
Methylene Chloride	<5.00		5.00		ug/L			04/26/14 18:01	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/26/14 18:01	1
Naphthalene	<5.00		5.00		ug/L			04/26/14 18:01	1
N-Propylbenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
Styrene	<1.00		1.00		ug/L			04/26/14 18:01	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-46299/8
Matrix: Water
Analysis Batch: 46299

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 18:01	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/26/14 18:01	1
Tetrachloroethene	<1.00		1.00		ug/L			04/26/14 18:01	1
Toluene	<1.00		1.00		ug/L			04/26/14 18:01	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 18:01	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/26/14 18:01	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/26/14 18:01	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/26/14 18:01	1
Trichloroethene	<1.00		1.00		ug/L			04/26/14 18:01	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/26/14 18:01	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/26/14 18:01	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/26/14 18:01	1
Vinyl chloride	<1.00		1.00		ug/L			04/26/14 18:01	1
Xylenes, Total	<3.00		3.00		ug/L			04/26/14 18:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 110*		*04/26/14 18:01*	*1*
Dibromofluoromethane (Surr)	*117*		*75 - 120*		*04/26/14 18:01*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/26/14 18:01*	*1*

Lab Sample ID: LCS 310-46299/5
Matrix: Water
Analysis Batch: 46299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	35.19		ug/L		88	60 - 150
Benzene	20.0	19.37		ug/L		97	70 - 130
Bromobenzene	20.0	19.08		ug/L		95	75 - 130
Bromochloromethane	20.0	18.42		ug/L		92	65 - 145
Bromodichloromethane	20.0	19.07		ug/L		95	60 - 130
Bromoform	20.0	16.32		ug/L		82	30 - 125
Bromomethane	20.0	18.68		ug/L		93	35 - 130
2-Butanone (MEK)	40.0	33.25		ug/L		83	55 - 140
n-Butylbenzene	20.0	17.06		ug/L		85	55 - 135
sec-Butylbenzene	20.0	20.20		ug/L		101	65 - 135
tert-Butylbenzene	20.0	19.84		ug/L		99	60 - 135
Carbon disulfide	20.0	19.80		ug/L		99	40 - 130
Carbon tetrachloride	20.0	18.96		ug/L		95	55 - 130
Chlorobenzene	20.0	19.17		ug/L		96	75 - 125
Chlorodibromomethane	20.0	18.64		ug/L		93	45 - 125
Chloroethane	20.0	19.11		ug/L		96	55 - 135
Chloroform	20.0	17.44		ug/L		87	70 - 125
Chloromethane	20.0	18.57		ug/L		93	30 - 125
2-Chlorotoluene	20.0	20.55		ug/L		103	75 - 135
4-Chlorotoluene	20.0	20.10		ug/L		100	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	20.69		ug/L		103	35 - 130
1,2-Dibromoethane (EDB)	20.0	18.40		ug/L		92	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-46299/5
Matrix: Water
Analysis Batch: 46299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	17.05		ug/L		85	75 - 130
1,2-Dichlorobenzene	20.0	18.42		ug/L		92	65 - 135
1,3-Dichlorobenzene	20.0	19.39		ug/L		97	70 - 130
1,4-Dichlorobenzene	20.0	19.01		ug/L		95	60 - 140
Dichlorodifluoromethane	20.0	15.54		ug/L		78	35 - 130
1,1-Dichloroethane	20.0	18.02		ug/L		90	60 - 130
1,2-Dichloroethane	20.0	18.84		ug/L		94	65 - 140
1,1-Dichloroethene	20.0	15.24		ug/L		76	60 - 135
cis-1,2-Dichloroethene	20.0	17.32		ug/L		87	70 - 135
trans-1,2-Dichloroethene	20.0	17.30		ug/L		87	60 - 145
1,2-Dichloropropane	20.0	18.76		ug/L		94	65 - 130
1,3-Dichloropropane	20.0	18.54		ug/L		93	75 - 125
2,2-Dichloropropane	20.0	18.50		ug/L		93	25 - 120
1,1-Dichloropropene	20.0	16.99		ug/L		85	60 - 140
cis-1,3-Dichloropropene	20.0	16.09		ug/L		80	30 - 120
trans-1,3-Dichloropropene	20.0	15.56		ug/L		78	35 - 120
Ethylbenzene	20.0	20.35		ug/L		102	70 - 130
Hexachlorobutadiene	20.0	19.12		ug/L		96	60 - 135
Hexane	20.0	17.28		ug/L		86	40 - 135
Isopropylbenzene	20.0	19.92		ug/L		100	70 - 125
p-Isopropyltoluene	20.0	18.26		ug/L		91	60 - 140
Methylene Chloride	20.0	18.69		ug/L		93	55 - 145
Methyl tert-butyl ether	20.0	18.31		ug/L		92	50 - 135
Naphthalene	20.0	15.27		ug/L		76	40 - 135
N-Propylbenzene	20.0	20.29		ug/L		101	70 - 135
Styrene	20.0	20.50		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	20.0	17.85		ug/L		89	65 - 120
1,1,2,2-Tetrachloroethane	20.0	17.47		ug/L		87	65 - 130
Tetrachloroethene	20.0	20.49		ug/L		102	70 - 135
Toluene	20.0	19.57		ug/L		98	70 - 135
1,2,3-Trichlorobenzene	20.0	15.61		ug/L		78	55 - 130
1,2,4-Trichlorobenzene	20.0	14.74		ug/L		74	40 - 135
1,1,1-Trichloroethane	20.0	19.72		ug/L		99	60 - 125
1,1,2-Trichloroethane	20.0	19.18		ug/L		96	75 - 125
Trichloroethene	20.0	19.14		ug/L		96	70 - 130
Trichlorofluoromethane	20.0	18.33		ug/L		92	55 - 145
1,2,3-Trichloropropane	20.0	18.98		ug/L		95	60 - 150
1,2,4-Trimethylbenzene	20.0	18.89		ug/L		94	70 - 140
1,3,5-Trimethylbenzene	20.0	19.79		ug/L		99	70 - 140
Vinyl chloride	20.0	20.57		ug/L		103	45 - 135
Xylenes, Total	40.0	39.98		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*75 - 110*
Dibromofluoromethane (Surr)	*97*		*75 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-29420-1 MS
Matrix: Ground Water
Analysis Batch: 46299

Client Sample ID: MW-63
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<10.0		40.0	51.14		ug/L		128	45 - 150
Benzene	<0.500		20.0	20.87		ug/L		104	50 - 130
Bromobenzene	<1.00		20.0	20.24		ug/L		101	60 - 135
Bromochloromethane	<5.00		20.0	25.09		ug/L		125	55 - 145
Bromodichloromethane	<1.00		20.0	22.94		ug/L		115	50 - 130
Bromoform	<5.00		20.0	22.17		ug/L		111	30 - 125
Bromomethane	<4.00		20.0	7.073		ug/L		35	30 - 130
2-Butanone (MEK)	<10.0		40.0	51.57		ug/L		129	45 - 140
n-Butylbenzene	<1.00		20.0	13.49		ug/L		67	40 - 135
sec-Butylbenzene	<1.00		20.0	14.46		ug/L		72	40 - 135
tert-Butylbenzene	<1.00		20.0	16.78		ug/L		84	40 - 135
Carbon disulfide	<1.00		20.0	18.40		ug/L		92	30 - 130
Carbon tetrachloride	<2.00		20.0	15.99		ug/L		80	35 - 130
Chlorobenzene	<1.00		20.0	20.27		ug/L		101	60 - 130
Chlorodibromomethane	<5.00		20.0	23.29		ug/L		116	35 - 130
Chloroethane	<4.00		20.0	15.05		ug/L		75	40 - 135
Chloroform	<1.00		20.0	22.36		ug/L		112	55 - 125
Chloromethane	<3.00		20.0	18.53		ug/L		93	25 - 125
2-Chlorotoluene	<1.00		20.0	19.15		ug/L		96	55 - 140
4-Chlorotoluene	<1.00		20.0	18.71		ug/L		94	50 - 140
1,2-Dibromo-3-Chloropropane	<10.0		20.0	22.23		ug/L		111	35 - 130
1,2-Dibromoethane (EDB)	<10.0		20.0	22.72		ug/L		114	55 - 140
Dibromomethane	<1.00		20.0	22.73		ug/L		114	60 - 135
1,2-Dichlorobenzene	<1.00		20.0	20.85		ug/L		104	55 - 140
1,3-Dichlorobenzene	<1.00		20.0	19.15		ug/L		96	55 - 135
1,4-Dichlorobenzene	<1.00		20.0	19.97		ug/L		100	55 - 140
Dichlorodifluoromethane	<3.00		20.0	10.04		ug/L		50	15 - 130
1,1-Dichloroethane	<1.00		20.0	22.05		ug/L		110	50 - 130
1,2-Dichloroethane	<1.00		20.0	24.99		ug/L		125	55 - 140
1,1-Dichloroethene	<2.00		20.0	17.68		ug/L		88	35 - 135
cis-1,2-Dichloroethene	<1.00		20.0	35.10	F1	ug/L		176	45 - 135
trans-1,2-Dichloroethene	<1.00		20.0	20.89		ug/L		104	45 - 145
1,2-Dichloropropane	<1.00		20.0	22.15		ug/L		111	55 - 130
1,3-Dichloropropane	<1.00		20.0	23.19		ug/L		116	60 - 135
2,2-Dichloropropane	<4.00		20.0	15.65		ug/L		78	20 - 120
1,1-Dichloropropene	<1.00		20.0	15.55		ug/L		78	40 - 140
cis-1,3-Dichloropropene	<5.00		20.0	20.34		ug/L		102	25 - 120
trans-1,3-Dichloropropene	<5.00		20.0	20.49		ug/L		102	25 - 120
Ethylbenzene	<1.00		20.0	18.60		ug/L		93	45 - 135
Hexachlorobutadiene	<5.00		20.0	13.66		ug/L		68	40 - 135
Hexane	<1.00		20.0	10.11		ug/L		51	25 - 135
Isopropylbenzene	<1.00		20.0	16.54		ug/L		83	45 - 125
p-Isopropyltoluene	<1.00		20.0	14.95		ug/L		75	40 - 140
Methylene Chloride	<5.00		20.0	20.79		ug/L		104	45 - 145
Methyl tert-butyl ether	<1.00		20.0	23.40		ug/L		117	40 - 135
Naphthalene	<5.00		20.0	16.27		ug/L		81	40 - 135
N-Propylbenzene	<1.00		20.0	16.08		ug/L		80	45 - 140
Styrene	<1.00		20.0	21.16		ug/L		106	40 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-29420-1 MS
Matrix: Ground Water
Analysis Batch: 46299

Client Sample ID: MW-63
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	<1.00		20.0	22.70		ug/L		113	50 - 130
1,1,2,2-Tetrachloroethane	<1.00		20.0	24.09		ug/L		120	55 - 140
Tetrachloroethene	<1.00		20.0	14.73		ug/L		74	40 - 135
Toluene	<1.00		20.0	19.20		ug/L		96	45 - 135
1,2,3-Trichlorobenzene	<5.00		20.0	13.72		ug/L		69	50 - 140
1,2,4-Trichlorobenzene	<5.00		20.0	14.21		ug/L		71	40 - 135
1,1,1-Trichloroethane	<1.00		20.0	17.75		ug/L		89	40 - 125
1,1,2-Trichloroethane	<1.00		20.0	24.09		ug/L		120	60 - 130
Trichloroethene	<1.00		20.0	36.79	F1	ug/L		179	50 - 130
Trichlorofluoromethane	<4.00		20.0	14.07		ug/L		70	40 - 145
1,2,3-Trichloropropane	<1.00		20.0	23.66		ug/L		118	55 - 150
1,2,4-Trimethylbenzene	<1.00		20.0	16.70		ug/L		84	45 - 140
1,3,5-Trimethylbenzene	<1.00		20.0	16.71		ug/L		84	45 - 140
Vinyl chloride	<1.00		20.0	15.13		ug/L		76	30 - 135
Xylenes, Total	<3.00		40.0	38.44		ug/L		96	40 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*75 - 110*
Dibromofluoromethane (Surr)	*107*		*75 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: 310-29420-1 MSD
Matrix: Ground Water
Analysis Batch: 46299

Client Sample ID: MW-63
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	<10.0		40.0	46.80		ug/L		117	45 - 150	9	20
Benzene	<0.500		20.0	20.26		ug/L		101	50 - 130	3	20
Bromobenzene	<1.00		20.0	20.94		ug/L		105	60 - 135	3	20
Bromochloromethane	<5.00		20.0	25.29		ug/L		126	55 - 145	1	20
Bromodichloromethane	<1.00		20.0	21.96		ug/L		110	50 - 130	4	20
Bromoform	<5.00		20.0	19.83		ug/L		99	30 - 125	11	20
Bromomethane	<4.00		20.0	9.217	F2	ug/L		46	30 - 130	26	20
2-Butanone (MEK)	<10.0		40.0	45.08		ug/L		113	45 - 140	13	20
n-Butylbenzene	<1.00		20.0	14.28		ug/L		71	40 - 135	6	20
sec-Butylbenzene	<1.00		20.0	16.19		ug/L		81	40 - 135	11	15
tert-Butylbenzene	<1.00		20.0	18.36		ug/L		92	40 - 135	9	15
Carbon disulfide	<1.00		20.0	19.76		ug/L		99	30 - 130	7	20
Carbon tetrachloride	<2.00		20.0	15.89		ug/L		79	35 - 130	1	20
Chlorobenzene	<1.00		20.0	20.60		ug/L		103	60 - 130	2	20
Chlorodibromomethane	<5.00		20.0	22.08		ug/L		110	35 - 130	5	20
Chloroethane	<4.00		20.0	14.20		ug/L		71	40 - 135	6	20
Chloroform	<1.00		20.0	21.57		ug/L		108	55 - 125	4	20
Chloromethane	<3.00		20.0	17.26		ug/L		86	25 - 125	7	20
2-Chlorotoluene	<1.00		20.0	19.81		ug/L		99	55 - 140	3	20
4-Chlorotoluene	<1.00		20.0	19.98		ug/L		100	50 - 140	7	20
1,2-Dibromo-3-Chloropropane	<10.0		20.0	23.53		ug/L		118	35 - 130	6	20
1,2-Dibromoethane (EDB)	<10.0		20.0	20.47		ug/L		102	55 - 140	10	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-29420-1 MSD
Matrix: Ground Water
Analysis Batch: 46299

Client Sample ID: MW-63
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	<1.00		20.0	20.57		ug/L		103	60 - 135	10	20
1,2-Dichlorobenzene	<1.00		20.0	21.24		ug/L		106	55 - 140	2	20
1,3-Dichlorobenzene	<1.00		20.0	20.05		ug/L		100	55 - 135	5	20
1,4-Dichlorobenzene	<1.00		20.0	20.56		ug/L		103	55 - 140	3	20
Dichlorodifluoromethane	<3.00		20.0	11.14		ug/L		56	15 - 130	10	20
1,1-Dichloroethane	<1.00		20.0	22.37		ug/L		112	50 - 130	1	20
1,2-Dichloroethane	<1.00		20.0	24.00		ug/L		120	55 - 140	4	20
1,1-Dichloroethene	<2.00		20.0	16.86		ug/L		84	35 - 135	5	20
cis-1,2-Dichloroethene	<1.00		20.0	30.58	F1	ug/L		153	45 - 135	14	20
trans-1,2-Dichloroethene	<1.00		20.0	20.12		ug/L		101	45 - 145	4	20
1,2-Dichloropropane	<1.00		20.0	21.17		ug/L		106	55 - 130	5	20
1,3-Dichloropropane	<1.00		20.0	22.03		ug/L		110	60 - 135	5	20
2,2-Dichloropropane	<4.00		20.0	15.40		ug/L		77	20 - 120	2	20
1,1-Dichloropropene	<1.00		20.0	15.03		ug/L		75	40 - 140	3	20
cis-1,3-Dichloropropene	<5.00		20.0	18.72		ug/L		94	25 - 120	8	20
trans-1,3-Dichloropropene	<5.00		20.0	18.13		ug/L		91	25 - 120	12	20
Ethylbenzene	<1.00		20.0	18.63		ug/L		93	45 - 135	0	20
Hexachlorobutadiene	<5.00		20.0	15.01		ug/L		75	40 - 135	9	20
Hexane	<1.00		20.0	10.00		ug/L		50	25 - 135	1	20
Isopropylbenzene	<1.00		20.0	17.69		ug/L		88	45 - 125	7	20
p-Isopropyltoluene	<1.00		20.0	15.93		ug/L		80	40 - 140	6	20
Methylene Chloride	<5.00		20.0	22.03		ug/L		110	45 - 145	6	20
Methyl tert-butyl ether	<1.00		20.0	21.77		ug/L		109	40 - 135	7	20
Naphthalene	<5.00		20.0	15.60		ug/L		78	40 - 135	4	20
N-Propylbenzene	<1.00		20.0	17.44		ug/L		87	45 - 140	8	20
Styrene	<1.00		20.0	21.61		ug/L		108	40 - 135	2	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	20.45		ug/L		102	50 - 130	10	20
1,1,2,2-Tetrachloroethane	<1.00		20.0	22.00		ug/L		110	55 - 140	9	20
Tetrachloroethene	<1.00		20.0	14.68		ug/L		73	40 - 135	0	20
Toluene	<1.00		20.0	19.29		ug/L		96	45 - 135	0	20
1,2,3-Trichlorobenzene	<5.00		20.0	16.48		ug/L		82	50 - 140	18	20
1,2,4-Trichlorobenzene	<5.00		20.0	15.29		ug/L		76	40 - 135	7	20
1,1,1-Trichloroethane	<1.00		20.0	17.78		ug/L		89	40 - 125	0	20
1,1,2-Trichloroethane	<1.00		20.0	23.18		ug/L		116	60 - 130	4	20
Trichloroethene	<1.00		20.0	29.76	F1 F2	ug/L		144	50 - 130	21	20
Trichlorofluoromethane	<4.00		20.0	14.06		ug/L		70	40 - 145	0	20
1,2,3-Trichloropropane	<1.00		20.0	22.51		ug/L		113	55 - 150	5	20
1,2,4-Trimethylbenzene	<1.00		20.0	18.66		ug/L		93	45 - 140	11	20
1,3,5-Trimethylbenzene	<1.00		20.0	18.22		ug/L		91	45 - 140	9	20
Vinyl chloride	<1.00		20.0	16.31		ug/L		82	30 - 135	7	20
Xylenes, Total	<3.00		40.0	39.42		ug/L		99	40 - 135	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 110*
Dibromofluoromethane (Surr)	*107*		*75 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-46760/8 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/30/14 20:35	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/30/14 20:35	1
Trichloroethene	<1.00		1.00		ug/L			04/30/14 20:35	1
Vinyl chloride	<1.00		1.00		ug/L			04/30/14 20:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 110*		*04/30/14 20:35*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*04/30/14 20:35*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/30/14 20:35*	*1*

Lab Sample ID: LCS 310-46760/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	20.0	20.07		ug/L		100	70 - 135
trans-1,2-Dichloroethene	20.0	21.81		ug/L		109	60 - 145
Trichloroethene	20.0	20.05		ug/L		100	70 - 130
Vinyl chloride	20.0	22.24		ug/L		111	45 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 110*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: MB 310-47080/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 47080

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/03/14 09:06	1
Trichloroethene	<1.00		1.00		ug/L			05/03/14 09:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 110*		*05/03/14 09:06*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*05/03/14 09:06*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*05/03/14 09:06*	*1*

Lab Sample ID: LCS 310-47080/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 47080

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	30.0	31.69		ug/L		106	70 - 135
Trichloroethene	30.0	31.39		ug/L		105	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-47080/4
Matrix: Water
Analysis Batch: 47080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 110*
Dibromofluoromethane (Surr)	*110*		*75 - 120*
Toluene-d8 (Surr)	*89*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-46871/3
Matrix: Water
Analysis Batch: 46871

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			04/30/14 16:47	1
Chloride	<1.00		1.00		mg/L			04/30/14 16:47	1

Lab Sample ID: LCS 310-46871/4
Matrix: Water
Analysis Batch: 46871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.570		mg/L		96	90 - 110
Chloride	10.0	10.48		mg/L		105	90 - 110

Lab Sample ID: MB 310-46881/3
Matrix: Water
Analysis Batch: 46881

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			04/30/14 18:08	1
Chloride	<1.00		1.00		mg/L			04/30/14 18:08	1

Lab Sample ID: LCS 310-46881/4
Matrix: Water
Analysis Batch: 46881

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.556		mg/L		96	90 - 110
Chloride	10.0	10.44		mg/L		104	90 - 110

Lab Sample ID: 310-29420-8 MS
Matrix: Ground Water
Analysis Batch: 46881

Client Sample ID: MW-57
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	54.4		25.0	77.92		mg/L		94	80 - 120
Chloride	15.1		25.0	39.02		mg/L		96	80 - 120

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 310-29420-8 MSD — **Client Sample ID: MW-57**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46881

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	54.4		25.0	77.28		mg/L		91	80 - 120	1	15
Chloride	15.1		25.0	38.48		mg/L		93	80 - 120	1	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-46630/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46776 — **Prep Batch: 46630**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		04/29/14 08:07	04/29/14 23:24	1
Manganese	<0.0100		0.0100		mg/L		04/29/14 08:07	04/29/14 23:24	1

Lab Sample ID: LCS 310-46630/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46776 — **Prep Batch: 46630**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.141		mg/L		107	85 - 110
Manganese	1.00	1.058		mg/L		106	85 - 115

Lab Sample ID: 310-29420-1 MS — **Client Sample ID: MW-63**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46776 — **Prep Batch: 46630**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.181		2.00	2.110		mg/L		96	75 - 125
Manganese	1.58		1.00	2.500		mg/L		92	80 - 115

Lab Sample ID: 310-29420-1 MSD — **Client Sample ID: MW-63**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46776 — **Prep Batch: 46630**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.181		2.00	2.105		mg/L		96	75 - 125	0	20
Manganese	1.58		1.00	2.522		mg/L		94	80 - 115	1	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-46629/36 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/29/14 01:22	1

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MB 310-46629/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/28/14 16:34	1

Lab Sample ID: LCS 310-46629/37 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.854		mg/L		97	90 - 110

Lab Sample ID: LCS 310-46629/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.889		mg/L		98	90 - 110

Lab Sample ID: MB 310-46943/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/29/14 19:13	1

Lab Sample ID: LCS 310-46943/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.942		mg/L		99	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-46439/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46439

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			04/25/14 14:10	1

Lab Sample ID: LCS 310-46439/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46439

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.5154		mg/L		103	90 - 110

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-46438/4
Matrix: Water
Analysis Batch: 46438

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			04/25/14 15:38	1

Lab Sample ID: LCS 310-46438/3
Matrix: Water
Analysis Batch: 46438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			16.8	16.54		mg/L		98	90 - 110		

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

GC/MS VOA

Analysis Batch: 46299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-1	MW-63	Total/NA	Ground Water	8260C	
310-29420-1 MS	MW-63	Total/NA	Ground Water	8260C	
310-29420-1 MSD	MW-63	Total/NA	Ground Water	8260C	
310-29420-2	MW-61	Total/NA	Ground Water	8260C	
310-29420-3	MW-46	Total/NA	Ground Water	8260C	
310-29420-4	MW-29	Total/NA	Ground Water	8260C	
310-29420-5	MW-47D	Total/NA	Ground Water	8260C	
310-29420-6	MW-28	Total/NA	Ground Water	8260C	
310-29420-7	DUP-01	Total/NA	Ground Water	8260C	
310-29420-8	MW-57	Total/NA	Ground Water	8260C	
310-29420-9	DUP-02	Total/NA	Ground Water	8260C	
310-29420-10	MW-43D	Total/NA	Ground Water	8260C	
310-29420-11	Trip Blank	Total/NA	Ground Water	8260C	
LCS 310-46299/5	Lab Control Sample	Total/NA	Water	8260C	
MB 310-46299/8	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 46760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-2	MW-61	Total/NA	Ground Water	8260C	
310-29420-3	MW-46	Total/NA	Ground Water	8260C	
310-29420-4	MW-29	Total/NA	Ground Water	8260C	
310-29420-5	MW-47D	Total/NA	Ground Water	8260C	
310-29420-6	MW-28	Total/NA	Ground Water	8260C	
310-29420-7	DUP-01	Total/NA	Ground Water	8260C	
310-29420-8	MW-57	Total/NA	Ground Water	8260C	
310-29420-9	DUP-02	Total/NA	Ground Water	8260C	
LCS 310-46760/5	Lab Control Sample	Total/NA	Water	8260C	
MB 310-46760/8	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 47080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-4	MW-29	Total/NA	Ground Water	8260C	
310-29420-6	MW-28	Total/NA	Ground Water	8260C	
LCS 310-47080/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-47080/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 46871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-1	MW-63	Total/NA	Ground Water	9056A	
310-29420-2	MW-61	Total/NA	Ground Water	9056A	
310-29420-3	MW-46	Total/NA	Ground Water	9056A	
310-29420-4	MW-29	Total/NA	Ground Water	9056A	
310-29420-5	MW-47D	Total/NA	Ground Water	9056A	
310-29420-6	MW-28	Total/NA	Ground Water	9056A	
310-29420-7	DUP-01	Total/NA	Ground Water	9056A	
LCS 310-46871/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-46871/3	Method Blank	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 46881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-8	MW-57	Total/NA	Ground Water	9056A	
310-29420-8 MS	MW-57	Total/NA	Ground Water	9056A	
310-29420-8 MSD	MW-57	Total/NA	Ground Water	9056A	
310-29420-9	DUP-02	Total/NA	Ground Water	9056A	
310-29420-10	MW-43D	Total/NA	Ground Water	9056A	
LCS 310-46881/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-46881/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 46630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-1	MW-63	Total/NA	Ground Water	3010A	
310-29420-1 MS	MW-63	Total/NA	Ground Water	3010A	
310-29420-1 MSD	MW-63	Total/NA	Ground Water	3010A	
310-29420-2	MW-61	Total/NA	Ground Water	3010A	
310-29420-3	MW-46	Total/NA	Ground Water	3010A	
310-29420-4	MW-29	Total/NA	Ground Water	3010A	
310-29420-5	MW-47D	Total/NA	Ground Water	3010A	
310-29420-6	MW-28	Total/NA	Ground Water	3010A	
310-29420-7	DUP-01	Total/NA	Ground Water	3010A	
310-29420-8	MW-57	Total/NA	Ground Water	3010A	
310-29420-9	DUP-02	Total/NA	Ground Water	3010A	
310-29420-10	MW-43D	Total/NA	Ground Water	3010A	
LCS 310-46630/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-46630/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 46776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-1	MW-63	Total/NA	Ground Water	6010C	46630
310-29420-1 MS	MW-63	Total/NA	Ground Water	6010C	46630
310-29420-1 MSD	MW-63	Total/NA	Ground Water	6010C	46630
310-29420-2	MW-61	Total/NA	Ground Water	6010C	46630
310-29420-3	MW-46	Total/NA	Ground Water	6010C	46630
310-29420-4	MW-29	Total/NA	Ground Water	6010C	46630
310-29420-5	MW-47D	Total/NA	Ground Water	6010C	46630
310-29420-7	DUP-01	Total/NA	Ground Water	6010C	46630
310-29420-8	MW-57	Total/NA	Ground Water	6010C	46630
310-29420-9	DUP-02	Total/NA	Ground Water	6010C	46630
310-29420-10	MW-43D	Total/NA	Ground Water	6010C	46630
LCS 310-46630/2-A	Lab Control Sample	Total/NA	Water	6010C	46630
MB 310-46630/1-A	Method Blank	Total/NA	Water	6010C	46630

Analysis Batch: 46930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-6	MW-28	Total/NA	Ground Water	6010C	46630

General Chemistry

Analysis Batch: 46438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-1	MW-63	Total/NA	Ground Water	SM 4500 NO3 E	
310-29420-2	MW-61	Total/NA	Ground Water	SM 4500 NO3 E	
310-29420-3	MW-46	Total/NA	Ground Water	SM 4500 NO3 E	
310-29420-4	MW-29	Total/NA	Ground Water	SM 4500 NO3 E	
310-29420-5	MW-47D	Total/NA	Ground Water	SM 4500 NO3 E	
310-29420-6	MW-28	Total/NA	Ground Water	SM 4500 NO3 E	
310-29420-7	DUP-01	Total/NA	Ground Water	SM 4500 NO3 E	
310-29420-8	MW-57	Total/NA	Ground Water	SM 4500 NO3 E	
310-29420-9	DUP-02	Total/NA	Ground Water	SM 4500 NO3 E	
310-29420-10	MW-43D	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-46438/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-46438/4	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 46439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-1	MW-63	Total/NA	Ground Water	SM 4500 NO2 B	
310-29420-2	MW-61	Total/NA	Ground Water	SM 4500 NO2 B	
310-29420-3	MW-46	Total/NA	Ground Water	SM 4500 NO2 B	
310-29420-4	MW-29	Total/NA	Ground Water	SM 4500 NO2 B	
310-29420-5	MW-47D	Total/NA	Ground Water	SM 4500 NO2 B	
310-29420-6	MW-28	Total/NA	Ground Water	SM 4500 NO2 B	
310-29420-7	DUP-01	Total/NA	Ground Water	SM 4500 NO2 B	
310-29420-8	MW-57	Total/NA	Ground Water	SM 4500 NO2 B	
310-29420-9	DUP-02	Total/NA	Ground Water	SM 4500 NO2 B	
310-29420-10	MW-43D	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-46439/3	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-46439/4	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 46629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-1	MW-63	Total/NA	Ground Water	9060A	
310-29420-5	MW-47D	Total/NA	Ground Water	9060A	
310-29420-7	DUP-01	Total/NA	Ground Water	9060A	
310-29420-9	DUP-02	Total/NA	Ground Water	9060A	
310-29420-10	MW-43D	Total/NA	Ground Water	9060A	
LCS 310-46629/37	Lab Control Sample	Total/NA	Water	9060A	
LCS 310-46629/7	Lab Control Sample	Total/NA	Water	9060A	
MB 310-46629/36	Method Blank	Total/NA	Water	9060A	
MB 310-46629/5	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 46741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-3	MW-46	Total/NA	Ground Water	9060A	
310-29420-4	MW-29	Total/NA	Ground Water	9060A	
310-29420-6	MW-28	Total/NA	Ground Water	9060A	
310-29420-8	MW-57	Total/NA	Ground Water	9060A	

Analysis Batch: 46943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29420-2	MW-61	Total/NA	Ground Water	9060A	
LCS 310-46943/6	Lab Control Sample	Total/NA	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 46943 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-46943/5	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-63

Lab Sample ID: 310-29420-1

Date Collected: 04/24/14 14:25

Matrix: Ground Water

Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/26/14 19:17	KNW	TAL CF
Total/NA	Analysis	9056A		5	46871	04/30/14 16:47	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/29/14 23:32	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/28/14 22:27	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46439	04/25/14 14:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46438	04/25/14 16:07	JCF	TAL CF

Client Sample ID: MW-61

Lab Sample ID: 310-29420-2

Date Collected: 04/24/14 12:40

Matrix: Ground Water

Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/26/14 18:51	KNW	TAL CF
Total/NA	Analysis	8260C		1	46760	04/30/14 21:26	KNW	TAL CF
Total/NA	Analysis	9056A		5	46871	04/30/14 16:47	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/29/14 23:40	OAD	TAL CF
Total/NA	Analysis	9060A		1	46943	04/30/14 03:29	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46439	04/25/14 14:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46438	04/25/14 16:09	JCF	TAL CF

Client Sample ID: MW-46

Lab Sample ID: 310-29420-3

Date Collected: 04/24/14 11:15

Matrix: Ground Water

Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/26/14 18:26	KNW	TAL CF
Total/NA	Analysis	8260C		10	46760	04/30/14 22:16	KNW	TAL CF
Total/NA	Analysis	9056A		5	46871	04/30/14 16:47	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/29/14 23:42	OAD	TAL CF
Total/NA	Analysis	9060A		1	46741	04/29/14 12:14	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46439	04/25/14 14:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46438	04/25/14 16:12	JCF	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-29

Lab Sample ID: 310-29420-4

Date Collected: 04/24/14 10:05
Matrix: Ground Water
Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/27/14 02:02	KNW	TAL CF
Total/NA	Analysis	8260C		100	46760	04/30/14 23:32	KNW	TAL CF
Total/NA	Analysis	8260C		1000	47080	05/03/14 10:44	KNW	TAL CF
Total/NA	Analysis	9056A		5	46871	04/30/14 17:09	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/29/14 23:44	OAD	TAL CF
Total/NA	Analysis	9060A		1	46741	04/29/14 14:07	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46439	04/25/14 14:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46438	04/25/14 16:15	JCF	TAL CF

Client Sample ID: MW-47D

Lab Sample ID: 310-29420-5

Date Collected: 04/24/14 08:20
Matrix: Ground Water
Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/27/14 01:36	KNW	TAL CF
Total/NA	Analysis	8260C		100	46760	04/30/14 23:58	KNW	TAL CF
Total/NA	Analysis	9056A		5	46871	04/30/14 17:09	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/29/14 23:46	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/29/14 01:05	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46439	04/25/14 14:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46438	04/25/14 16:17	JCF	TAL CF

Client Sample ID: MW-28

Lab Sample ID: 310-29420-6

Date Collected: 04/24/14 07:15
Matrix: Ground Water
Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/27/14 01:11	KNW	TAL CF
Total/NA	Analysis	8260C		100	46760	05/01/14 00:23	KNW	TAL CF
Total/NA	Analysis	8260C		1000	47080	05/03/14 11:08	KNW	TAL CF
Total/NA	Analysis	9056A		5	46871	04/30/14 17:09	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		3	46930	04/30/14 17:07	OAD	TAL CF
Total/NA	Analysis	9060A		4	46741	04/29/14 11:04	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46439	04/25/14 14:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46438	04/25/14 16:19	JCF	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: DUP-01

Lab Sample ID: 310-29420-7

Date Collected: 04/24/14 00:00
Matrix: Ground Water
Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/27/14 00:45	KNW	TAL CF
Total/NA	Analysis	8260C		100	46760	05/01/14 00:48	KNW	TAL CF
Total/NA	Analysis	9056A		5	46871	04/30/14 17:23	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/29/14 23:50	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/29/14 00:08	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46439	04/25/14 14:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46438	04/25/14 16:23	JCF	TAL CF

Client Sample ID: MW-57

Lab Sample ID: 310-29420-8

Date Collected: 04/24/14 15:40
Matrix: Ground Water
Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/27/14 00:20	KNW	TAL CF
Total/NA	Analysis	8260C		10	46760	04/30/14 22:42	KNW	TAL CF
Total/NA	Analysis	9056A		5	46881	04/30/14 18:08	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/29/14 23:56	OAD	TAL CF
Total/NA	Analysis	9060A		1	46741	04/29/14 11:39	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46439	04/25/14 14:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46438	04/25/14 16:26	JCF	TAL CF

Client Sample ID: DUP-02

Lab Sample ID: 310-29420-9

Date Collected: 04/24/14 00:00
Matrix: Ground Water
Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/26/14 23:55	KNW	TAL CF
Total/NA	Analysis	8260C		10	46760	04/30/14 23:07	KNW	TAL CF
Total/NA	Analysis	9056A		5	46881	04/30/14 18:08	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/29/14 23:58	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/28/14 18:20	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46439	04/25/14 14:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46438	04/25/14 16:28	JCF	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Client Sample ID: MW-43D

Lab Sample ID: 310-29420-10

Date Collected: 04/24/14 16:50
Matrix: Ground Water
Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/26/14 23:30	KNW	TAL CF
Total/NA	Analysis	9056A		5	46881	04/30/14 18:08	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/30/14 00:00	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/28/14 21:52	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46439	04/25/14 14:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46438	04/25/14 16:31	JCF	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-29420-11

Date Collected: 04/24/14 00:00
Matrix: Ground Water
Date Received: 04/25/14 09:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46299	04/26/14 23:04	KNW	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA	IHLAP		101044	11-01-14
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	7	12-01-13 *
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14
Oregon	NELAP	10	IA100001	09-29-14
Wisconsin	State Program	5	999917270	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29420-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt a
Cedar Falls Facility

310-29420 Chain of Custody

Client: Golder Assoc Project: Electrolux

City: _____ State: _____

Date: 4-25-14 Receiver's Initials: CH Time (Delivered): 9:18

Temperature Record:

Cooler ID# (If Applicable): 181

Uncorrected Temp: 0.2 °C

Corrected Temp: 0.0 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Temperature Log Form
Cedar Falls Facility

Client: Golder Assoc. Project: Electrolux

City: _____ State: _____

Date: 4-25-14 Receiver's Initials: CH Time (Delivered): 9:18

Temperature Record:

Cooler ID# (If Applicable): QC

Uncorrected Temp: 0.2 °C

Corrected Temp: 0.0 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-63	310-29420-B-1	Plastic 250ml - with Nitric Acid	<2		
MW-63	310-29420-C-1	Plastic 250ml - with Sulfuric Acid	<2		
MW-61	310-29420-B-2	Plastic 250ml - with Nitric Acid	<2		
MW-61	310-29420-C-2	Plastic 250ml - with Sulfuric Acid	<2		
MW-46	310-29420-B-3	Plastic 250ml - with Nitric Acid	<2		
MW-46	310-29420-C-3	Plastic 250ml - with Sulfuric Acid	<2		
MW-29	310-29420-B-4	Plastic 250ml - with Nitric Acid	<2		
MW-29	310-29420-C-4	Plastic 250ml - with Sulfuric Acid	<2		
MW-47D	310-29420-B-5	Plastic 250ml - with Nitric Acid	<2		
MW-47D	310-29420-C-5	Plastic 250ml - with Sulfuric Acid	<2		
MW-28	310-29420-B-6	Plastic 250ml - with Nitric Acid	<2		
MW-28	310-29420-C-6	Plastic 250ml - with Sulfuric Acid	<2		
DUP-01	310-29420-B-7	Plastic 250ml - with Nitric Acid	<2		
DUP-01	310-29420-C-7	Plastic 250ml - with Sulfuric Acid	<2		
MW-57	310-29420-B-8	Plastic 250ml - with Nitric Acid	<2		
MW-57	310-29420-C-8	Plastic 250ml - with Sulfuric Acid	<2		
DUP-02	310-29420-B-9	Plastic 250ml - with Nitric Acid	<2		
DUP-02	310-29420-C-9	Plastic 250ml - with Sulfuric Acid	<2		
MW-43D	310-29420-B-10	Plastic 250ml - with Nitric Acid	<2		
MW-43D	310-29420-C-10	Plastic 250ml - with Sulfuric Acid	<2		

4/25/14
M

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Your PO #: 103-87305
Send Report To: James Peace
Invoice To:
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Project Name: Electrolux - Jefferson, IA
Telephone Number: 603-668-0880 Fax: 603-668-1199
Project Number: 103-87305
Sampled by: (Print Name) Andrew Koff
(Signature)
Email Address: JPeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red & White Label)	Preservative: HCl (Blue & White Label)	Preservative: NaOH (Orange & White Label)	Preservative: H_2SO_4 Plastic (Yellow & White Label)	Preservative: H_2SO_4 Glass(Yellow & White Label)	Preservative: None (Black & White Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other Specify:Stormwater	Analyze For: 8260 Volatiles	Analyze For: Nitrate, Nitrite	Analyze For: Sulfate, Chloride	Analyze For: TOC	Analyze For: Iron, Manganese	E-mail results	Send QC with report
MW-63	4/24/14	1425	6	X			X	X	X		X				X						X	X	X	X	X	X	X
MW-61		1240																									
MW-46		1115																									
MW-29		1005																									
MW-47D		820																									
MW-28		715																									
DUP-01		—																									
MW-57		1540																									
DUP-02		—																									
MW-43D		1650																									

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES: trip blank included (VOC - 3 vials)

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	4/24/14	1600						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	4/25/14	9:18						

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-29420-1

Login Number: 29420
List Number: 1
Creator: Fobian, Norma F

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-29499-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
5/6/2014 1:16:48 PM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-29499-1	MW-08	Ground Water	04/25/14 07:10	04/26/14 09:15
310-29499-2	MW-15	Ground Water	04/25/14 07:35	04/26/14 09:15
310-29499-3	MW-53	Ground Water	04/25/14 08:05	04/26/14 09:15
310-29499-4	MW-31	Ground Water	04/25/14 08:35	04/26/14 09:15
310-29499-5	MW-19	Ground Water	04/25/14 09:05	04/26/14 09:15
310-29499-6	Trip Blank	Water	04/25/14 00:00	04/26/14 09:15

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-08 — Lab Sample ID: 310-29499-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	47.4		5.00		mg/L	5		9056A	Total/NA
Chloride	88.2		5.00		mg/L	5		9056A	Total/NA
Total Organic Carbon	3.09		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 310-29499-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.89		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	49.6		1.00		ug/L	1		8260C	Total/NA
Sulfate	22.7		5.00		mg/L	5		9056A	Total/NA
Chloride	24.7		5.00		mg/L	5		9056A	Total/NA
Iron	0.106		0.100		mg/L	1		6010C	Total/NA
Manganese	0.0123		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	6.36		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	3.71		0.833		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-53 — Lab Sample ID: 310-29499-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	18.7		1.00		ug/L	1		8260C	Total/NA
1,1-Dichloroethene	5.36		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	76.8		1.00		ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	4.71		1.00		ug/L	1		8260C	Total/NA
Tetrachloroethene	9.21		1.00		ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	15.4		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	10.9		1.00		ug/L	1		8260C	Total/NA
Sulfate	32.0		5.00		mg/L	5		9056A	Total/NA
Chloride	34.3		5.00		mg/L	5		9056A	Total/NA
Iron	0.176		0.100		mg/L	1		6010C	Total/NA
Manganese	0.206		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	6.84		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-31 — Lab Sample ID: 310-29499-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	12600		100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	112		100		ug/L	100		8260C	Total/NA
Trichloroethene	5580		100		ug/L	100		8260C	Total/NA
Sulfate	177		5.00		mg/L	5		9056A	Total/NA
Chloride	44.0		5.00		mg/L	5		9056A	Total/NA
Iron	0.143		0.100		mg/L	1		6010C	Total/NA
Manganese	0.0868		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.13		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 310-29499-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	7310		4000		ug/L	2000		8260C	Total/NA
cis-1,2-Dichloroethene	4750		2000		ug/L	2000		8260C	Total/NA
Tetrachloroethene	2100		2000		ug/L	2000		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-19 (Continued) — Lab Sample ID: 310-29499-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	13400		2000		ug/L	2000		8260C	Total/NA
Trichloroethene	614000		2000		ug/L	2000		8260C	Total/NA
Sulfate	58.8		5.00		mg/L	5		9056A	Total/NA
Chloride	15.4		5.00		mg/L	5		9056A	Total/NA
Iron	0.412		0.100		mg/L	1		6010C	Total/NA
Manganese	0.0510		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	3.35		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-29499-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-08
Date Collected: 04/25/14 07:10
Date Received: 04/26/14 09:15

Lab Sample ID: 310-29499-1
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/01/14 02:04	1
Benzene	<0.500		0.500		ug/L			05/01/14 02:04	1
Bromobenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
Bromochloromethane	<5.00		5.00		ug/L			05/01/14 02:04	1
Bromodichloromethane	<1.00		1.00		ug/L			05/01/14 02:04	1
Bromoform	<5.00		5.00		ug/L			05/01/14 02:04	1
Bromomethane	<4.00		4.00		ug/L			05/01/14 02:04	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/01/14 02:04	1
n-Butylbenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
Carbon disulfide	<1.00		1.00		ug/L			05/01/14 02:04	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/01/14 02:04	1
Chlorobenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/01/14 02:04	1
Chloroethane	<4.00		4.00		ug/L			05/01/14 02:04	1
Chloroform	<1.00		1.00		ug/L			05/01/14 02:04	1
Chloromethane	<3.00		3.00		ug/L			05/01/14 02:04	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/01/14 02:04	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/01/14 02:04	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			05/01/14 02:04	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			05/01/14 02:04	1
Dibromomethane	<1.00		1.00		ug/L			05/01/14 02:04	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/01/14 02:04	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/01/14 02:04	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/01/14 02:04	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/01/14 02:04	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/01/14 02:04	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/01/14 02:04	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/01/14 02:04	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/01/14 02:04	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/01/14 02:04	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/01/14 02:04	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/01/14 02:04	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/01/14 02:04	1
Ethylbenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/01/14 02:04	1
Hexane	<1.00		1.00		ug/L			05/01/14 02:04	1
Isopropylbenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/01/14 02:04	1
Methylene Chloride	<5.00		5.00		ug/L			05/01/14 02:04	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/01/14 02:04	1
Naphthalene	<5.00		5.00		ug/L			05/01/14 02:04	1
N-Propylbenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
Styrene	<1.00		1.00		ug/L			05/01/14 02:04	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/01/14 02:04	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-08

Date Collected: 04/25/14 07:10
Date Received: 04/26/14 09:15

Lab Sample ID: 310-29499-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/01/14 02:04	1
Tetrachloroethene	<1.00		1.00		ug/L			05/01/14 02:04	1
Toluene	<1.00		1.00		ug/L			05/01/14 02:04	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/01/14 02:04	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/01/14 02:04	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/01/14 02:04	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/01/14 02:04	1
Trichloroethene	<1.00		1.00		ug/L			05/01/14 02:04	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/01/14 02:04	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/01/14 02:04	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/01/14 02:04	1
Vinyl chloride	<1.00		1.00		ug/L			05/01/14 02:04	1
Xylenes, Total	<3.00		3.00		ug/L			05/01/14 02:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 110*		*05/01/14 02:04*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*05/01/14 02:04*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/01/14 02:04*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**47.4**		5.00		mg/L			04/30/14 18:08	5
Chloride	**88.2**		5.00		mg/L			04/30/14 18:08	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		04/29/14 08:07	04/30/14 00:02	1
Manganese	<0.0100		0.0100		mg/L		04/29/14 08:07	04/30/14 00:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.09**		1.00		mg/L			04/29/14 01:58	1
Nitrite as N	<0.100		0.100		mg/L			04/26/14 10:44	1
Nitrate as N	<0.100		0.100		mg/L			04/26/14 10:20	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-15

Date Collected: 04/25/14 07:35
Date Received: 04/26/14 09:15

Lab Sample ID: 310-29499-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/01/14 02:30	1
Benzene	<0.500		0.500		ug/L			05/01/14 02:30	1
Bromobenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
Bromochloromethane	<5.00		5.00		ug/L			05/01/14 02:30	1
Bromodichloromethane	<1.00		1.00		ug/L			05/01/14 02:30	1
Bromoform	<5.00		5.00		ug/L			05/01/14 02:30	1
Bromomethane	<4.00		4.00		ug/L			05/01/14 02:30	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/01/14 02:30	1
n-Butylbenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
Carbon disulfide	<1.00		1.00		ug/L			05/01/14 02:30	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/01/14 02:30	1
Chlorobenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/01/14 02:30	1
Chloroethane	<4.00		4.00		ug/L			05/01/14 02:30	1
Chloroform	<1.00		1.00		ug/L			05/01/14 02:30	1
Chloromethane	<3.00		3.00		ug/L			05/01/14 02:30	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/01/14 02:30	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/01/14 02:30	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			05/01/14 02:30	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			05/01/14 02:30	1
Dibromomethane	<1.00		1.00		ug/L			05/01/14 02:30	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/01/14 02:30	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/01/14 02:30	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/01/14 02:30	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/01/14 02:30	1
cis-1,2-Dichloroethene	**4.89**		1.00		ug/L			05/01/14 02:30	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/01/14 02:30	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/01/14 02:30	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/01/14 02:30	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/01/14 02:30	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/01/14 02:30	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/01/14 02:30	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/01/14 02:30	1
Ethylbenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/01/14 02:30	1
Hexane	<1.00		1.00		ug/L			05/01/14 02:30	1
Isopropylbenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/01/14 02:30	1
Methylene Chloride	<5.00		5.00		ug/L			05/01/14 02:30	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/01/14 02:30	1
Naphthalene	<5.00		5.00		ug/L			05/01/14 02:30	1
N-Propylbenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
Styrene	<1.00		1.00		ug/L			05/01/14 02:30	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/01/14 02:30	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-15

Date Collected: 04/25/14 07:35
Date Received: 04/26/14 09:15

Lab Sample ID: 310-29499-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/01/14 02:30	1
Tetrachloroethene	<1.00		1.00		ug/L			05/01/14 02:30	1
Toluene	<1.00		1.00		ug/L			05/01/14 02:30	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/01/14 02:30	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/01/14 02:30	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/01/14 02:30	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/01/14 02:30	1
Trichloroethene	**49.6**		1.00		ug/L			05/01/14 02:30	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/01/14 02:30	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/01/14 02:30	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/01/14 02:30	1
Vinyl chloride	<1.00		1.00		ug/L			05/01/14 02:30	1
Xylenes, Total	<3.00		3.00		ug/L			05/01/14 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 110*		*05/01/14 02:30*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 120*		*05/01/14 02:30*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/01/14 02:30*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**22.7**		5.00		mg/L			04/30/14 18:08	5
Chloride	**24.7**		5.00		mg/L			04/30/14 18:08	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.106**		0.100		mg/L		04/29/14 08:07	04/30/14 00:06	1
Manganese	**0.0123**		0.0100		mg/L		04/29/14 08:07	04/30/14 00:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**6.36**		1.00		mg/L			04/28/14 21:34	1
Nitrite as N	<0.100		0.100		mg/L			04/26/14 10:44	1
Nitrate as N	**3.71**		0.833		mg/L			04/26/14 10:34	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-53

Date Collected: 04/25/14 08:05
Date Received: 04/26/14 09:15

Lab Sample ID: 310-29499-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/01/14 02:55	1
Benzene	<0.500		0.500		ug/L			05/01/14 02:55	1
Bromobenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
Bromochloromethane	<5.00		5.00		ug/L			05/01/14 02:55	1
Bromodichloromethane	<1.00		1.00		ug/L			05/01/14 02:55	1
Bromoform	<5.00		5.00		ug/L			05/01/14 02:55	1
Bromomethane	<4.00		4.00		ug/L			05/01/14 02:55	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/01/14 02:55	1
n-Butylbenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
Carbon disulfide	<1.00		1.00		ug/L			05/01/14 02:55	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/01/14 02:55	1
Chlorobenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/01/14 02:55	1
Chloroethane	<4.00		4.00		ug/L			05/01/14 02:55	1
Chloroform	<1.00		1.00		ug/L			05/01/14 02:55	1
Chloromethane	<3.00		3.00		ug/L			05/01/14 02:55	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/01/14 02:55	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/01/14 02:55	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			05/01/14 02:55	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			05/01/14 02:55	1
Dibromomethane	<1.00		1.00		ug/L			05/01/14 02:55	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/01/14 02:55	1
1,1-Dichloroethane	**18.7**		1.00		ug/L			05/01/14 02:55	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/01/14 02:55	1
1,1-Dichloroethene	**5.36**		2.00		ug/L			05/01/14 02:55	1
cis-1,2-Dichloroethene	**76.8**		1.00		ug/L			05/01/14 02:55	1
trans-1,2-Dichloroethene	**4.71**		1.00		ug/L			05/01/14 02:55	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/01/14 02:55	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/01/14 02:55	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/01/14 02:55	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/01/14 02:55	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/01/14 02:55	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/01/14 02:55	1
Ethylbenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/01/14 02:55	1
Hexane	<1.00		1.00		ug/L			05/01/14 02:55	1
Isopropylbenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/01/14 02:55	1
Methylene Chloride	<5.00		5.00		ug/L			05/01/14 02:55	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/01/14 02:55	1
Naphthalene	<5.00		5.00		ug/L			05/01/14 02:55	1
N-Propylbenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
Styrene	<1.00		1.00		ug/L			05/01/14 02:55	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/01/14 02:55	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-53

Date Collected: 04/25/14 08:05
Date Received: 04/26/14 09:15

Lab Sample ID: 310-29499-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/01/14 02:55	1
Tetrachloroethene	**9.21**		1.00		ug/L			05/01/14 02:55	1
Toluene	<1.00		1.00		ug/L			05/01/14 02:55	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/01/14 02:55	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/01/14 02:55	1
1,1,1-Trichloroethane	**15.4**		1.00		ug/L			05/01/14 02:55	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/01/14 02:55	1
Trichloroethene	**10.9**		1.00		ug/L			05/01/14 02:55	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/01/14 02:55	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/01/14 02:55	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/01/14 02:55	1
Vinyl chloride	<1.00		1.00		ug/L			05/01/14 02:55	1
Xylenes, Total	<3.00		3.00		ug/L			05/01/14 02:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 110*		*05/01/14 02:55*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 120*		*05/01/14 02:55*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/01/14 02:55*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**32.0**		5.00		mg/L			04/30/14 18:08	5
Chloride	**34.3**		5.00		mg/L			04/30/14 18:08	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.176**		0.100		mg/L		04/29/14 08:07	04/30/14 00:10	1
Manganese	**0.206**		0.0100		mg/L		04/29/14 08:07	04/30/14 00:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**6.84**		1.00		mg/L			04/29/14 00:28	1
Nitrite as N	<0.100		0.100		mg/L			04/26/14 10:44	1
Nitrate as N	<0.100		0.100		mg/L			04/26/14 10:37	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-31

Date Collected: 04/25/14 08:35
Date Received: 04/26/14 09:15

Lab Sample ID: 310-29499-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			05/01/14 01:14	100
Benzene	<50.0		50.0		ug/L			05/01/14 01:14	100
Bromobenzene	<100		100		ug/L			05/01/14 01:14	100
Bromochloromethane	<500		500		ug/L			05/01/14 01:14	100
Bromodichloromethane	<100		100		ug/L			05/01/14 01:14	100
Bromoform	<500		500		ug/L			05/01/14 01:14	100
Bromomethane	<400		400		ug/L			05/01/14 01:14	100
2-Butanone (MEK)	<1000		1000		ug/L			05/01/14 01:14	100
n-Butylbenzene	<100		100		ug/L			05/01/14 01:14	100
sec-Butylbenzene	<100		100		ug/L			05/01/14 01:14	100
tert-Butylbenzene	<100		100		ug/L			05/01/14 01:14	100
Carbon disulfide	<100		100		ug/L			05/01/14 01:14	100
Carbon tetrachloride	<200		200		ug/L			05/01/14 01:14	100
Chlorobenzene	<100		100		ug/L			05/01/14 01:14	100
Chlorodibromomethane	<500		500		ug/L			05/01/14 01:14	100
Chloroethane	<400		400		ug/L			05/01/14 01:14	100
Chloroform	<100		100		ug/L			05/01/14 01:14	100
Chloromethane	<300		300		ug/L			05/01/14 01:14	100
2-Chlorotoluene	<100		100		ug/L			05/01/14 01:14	100
4-Chlorotoluene	<100		100		ug/L			05/01/14 01:14	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			05/01/14 01:14	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			05/01/14 01:14	100
Dibromomethane	<100		100		ug/L			05/01/14 01:14	100
1,2-Dichlorobenzene	<100		100		ug/L			05/01/14 01:14	100
1,3-Dichlorobenzene	<100		100		ug/L			05/01/14 01:14	100
1,4-Dichlorobenzene	<100		100		ug/L			05/01/14 01:14	100
Dichlorodifluoromethane	<300		300		ug/L			05/01/14 01:14	100
1,1-Dichloroethane	<100		100		ug/L			05/01/14 01:14	100
1,2-Dichloroethane	<100		100		ug/L			05/01/14 01:14	100
1,1-Dichloroethene	<200		200		ug/L			05/01/14 01:14	100
cis-1,2-Dichloroethene	**12600**		100		ug/L			05/01/14 01:14	100
trans-1,2-Dichloroethene	**112**		100		ug/L			05/01/14 01:14	100
1,2-Dichloropropane	<100		100		ug/L			05/01/14 01:14	100
1,3-Dichloropropane	<100		100		ug/L			05/01/14 01:14	100
2,2-Dichloropropane	<400		400		ug/L			05/01/14 01:14	100
1,1-Dichloropropene	<100		100		ug/L			05/01/14 01:14	100
cis-1,3-Dichloropropene	<500		500		ug/L			05/01/14 01:14	100
trans-1,3-Dichloropropene	<500		500		ug/L			05/01/14 01:14	100
Ethylbenzene	<100		100		ug/L			05/01/14 01:14	100
Hexachlorobutadiene	<500		500		ug/L			05/01/14 01:14	100
Hexane	<100		100		ug/L			05/01/14 01:14	100
Isopropylbenzene	<100		100		ug/L			05/01/14 01:14	100
p-Isopropyltoluene	<100		100		ug/L			05/01/14 01:14	100
Methylene Chloride	<500		500		ug/L			05/01/14 01:14	100
Methyl tert-butyl ether	<100		100		ug/L			05/01/14 01:14	100
Naphthalene	<500		500		ug/L			05/01/14 01:14	100
N-Propylbenzene	<100		100		ug/L			05/01/14 01:14	100
Styrene	<100		100		ug/L			05/01/14 01:14	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			05/01/14 01:14	100

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-31

Date Collected: 04/25/14 08:35
Date Received: 04/26/14 09:15

Lab Sample ID: 310-29499-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			05/01/14 01:14	100
Tetrachloroethene	<100		100		ug/L			05/01/14 01:14	100
Toluene	<100		100		ug/L			05/01/14 01:14	100
1,2,3-Trichlorobenzene	<500		500		ug/L			05/01/14 01:14	100
1,2,4-Trichlorobenzene	<500		500		ug/L			05/01/14 01:14	100
1,1,1-Trichloroethane	<100		100		ug/L			05/01/14 01:14	100
1,1,2-Trichloroethane	<100		100		ug/L			05/01/14 01:14	100
Trichloroethene	**5580**		100		ug/L			05/01/14 01:14	100
Trichlorofluoromethane	<400		400		ug/L			05/01/14 01:14	100
1,2,3-Trichloropropane	<100		100		ug/L			05/01/14 01:14	100
1,2,4-Trimethylbenzene	<100		100		ug/L			05/01/14 01:14	100
1,3,5-Trimethylbenzene	<100		100		ug/L			05/01/14 01:14	100
Vinyl chloride	<100		100		ug/L			05/01/14 01:14	100
Xylenes, Total	<300		300		ug/L			05/01/14 01:14	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 110*		*05/01/14 01:14*	*100*
Dibromofluoromethane (Surr)	*106*		*75 - 120*		*05/01/14 01:14*	*100*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/01/14 01:14*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**177**		5.00		mg/L			04/30/14 18:08	5
Chloride	**44.0**		5.00		mg/L			04/30/14 18:08	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.143**		0.100		mg/L		04/29/14 08:07	04/30/14 00:12	1
Manganese	**0.0868**		0.0100		mg/L		04/29/14 08:07	04/30/14 00:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.13**		1.00		mg/L			04/28/14 22:10	1
Nitrite as N	<0.100		0.100		mg/L			04/26/14 10:44	1
Nitrate as N	<0.100		0.100		mg/L			04/26/14 10:40	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-19

Date Collected: 04/25/14 09:05
Date Received: 04/26/14 09:15

Lab Sample ID: 310-29499-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<20000		20000		ug/L			05/01/14 01:39	2000
Benzene	<1000		1000		ug/L			05/01/14 01:39	2000
Bromobenzene	<2000		2000		ug/L			05/01/14 01:39	2000
Bromochloromethane	<10000		10000		ug/L			05/01/14 01:39	2000
Bromodichloromethane	<2000		2000		ug/L			05/01/14 01:39	2000
Bromoform	<10000		10000		ug/L			05/01/14 01:39	2000
Bromomethane	<8000		8000		ug/L			05/01/14 01:39	2000
2-Butanone (MEK)	<20000		20000		ug/L			05/01/14 01:39	2000
n-Butylbenzene	<2000		2000		ug/L			05/01/14 01:39	2000
sec-Butylbenzene	<2000		2000		ug/L			05/01/14 01:39	2000
tert-Butylbenzene	<2000		2000		ug/L			05/01/14 01:39	2000
Carbon disulfide	<2000		2000		ug/L			05/01/14 01:39	2000
Carbon tetrachloride	<4000		4000		ug/L			05/01/14 01:39	2000
Chlorobenzene	<2000		2000		ug/L			05/01/14 01:39	2000
Chlorodibromomethane	<10000		10000		ug/L			05/01/14 01:39	2000
Chloroethane	<8000		8000		ug/L			05/01/14 01:39	2000
Chloroform	<2000		2000		ug/L			05/01/14 01:39	2000
Chloromethane	<6000		6000		ug/L			05/01/14 01:39	2000
2-Chlorotoluene	<2000		2000		ug/L			05/01/14 01:39	2000
4-Chlorotoluene	<2000		2000		ug/L			05/01/14 01:39	2000
1,2-Dibromo-3-Chloropropane	<20000		20000		ug/L			05/01/14 01:39	2000
1,2-Dibromoethane (EDB)	<20000		20000		ug/L			05/01/14 01:39	2000
Dibromomethane	<2000		2000		ug/L			05/01/14 01:39	2000
1,2-Dichlorobenzene	<2000		2000		ug/L			05/01/14 01:39	2000
1,3-Dichlorobenzene	<2000		2000		ug/L			05/01/14 01:39	2000
1,4-Dichlorobenzene	<2000		2000		ug/L			05/01/14 01:39	2000
Dichlorodifluoromethane	<6000		6000		ug/L			05/01/14 01:39	2000
1,1-Dichloroethane	<2000		2000		ug/L			05/01/14 01:39	2000
1,2-Dichloroethane	<2000		2000		ug/L			05/01/14 01:39	2000
1,1-Dichloroethene	**7310**		4000		ug/L			05/01/14 01:39	2000
cis-1,2-Dichloroethene	**4750**		2000		ug/L			05/01/14 01:39	2000
trans-1,2-Dichloroethene	<2000		2000		ug/L			05/01/14 01:39	2000
1,2-Dichloropropane	<2000		2000		ug/L			05/01/14 01:39	2000
1,3-Dichloropropane	<2000		2000		ug/L			05/01/14 01:39	2000
2,2-Dichloropropane	<8000		8000		ug/L			05/01/14 01:39	2000
1,1-Dichloropropene	<2000		2000		ug/L			05/01/14 01:39	2000
cis-1,3-Dichloropropene	<10000		10000		ug/L			05/01/14 01:39	2000
trans-1,3-Dichloropropene	<10000		10000		ug/L			05/01/14 01:39	2000
Ethylbenzene	<2000		2000		ug/L			05/01/14 01:39	2000
Hexachlorobutadiene	<10000		10000		ug/L			05/01/14 01:39	2000
Hexane	<2000		2000		ug/L			05/01/14 01:39	2000
Isopropylbenzene	<2000		2000		ug/L			05/01/14 01:39	2000
p-Isopropyltoluene	<2000		2000		ug/L			05/01/14 01:39	2000
Methylene Chloride	<10000		10000		ug/L			05/01/14 01:39	2000
Methyl tert-butyl ether	<2000		2000		ug/L			05/01/14 01:39	2000
Naphthalene	<10000		10000		ug/L			05/01/14 01:39	2000
N-Propylbenzene	<2000		2000		ug/L			05/01/14 01:39	2000
Styrene	<2000		2000		ug/L			05/01/14 01:39	2000
1,1,1,2-Tetrachloroethane	<2000		2000		ug/L			05/01/14 01:39	2000

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-19

Date Collected: 04/25/14 09:05
Date Received: 04/26/14 09:15

Lab Sample ID: 310-29499-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<2000		2000		ug/L			05/01/14 01:39	2000
Tetrachloroethene	**2100**		2000		ug/L			05/01/14 01:39	2000
Toluene	<2000		2000		ug/L			05/01/14 01:39	2000
1,2,3-Trichlorobenzene	<10000		10000		ug/L			05/01/14 01:39	2000
1,2,4-Trichlorobenzene	<10000		10000		ug/L			05/01/14 01:39	2000
1,1,1-Trichloroethane	**13400**		2000		ug/L			05/01/14 01:39	2000
1,1,2-Trichloroethane	<2000		2000		ug/L			05/01/14 01:39	2000
Trichloroethene	**614000**		2000		ug/L			05/01/14 01:39	2000
Trichlorofluoromethane	<8000		8000		ug/L			05/01/14 01:39	2000
1,2,3-Trichloropropane	<2000		2000		ug/L			05/01/14 01:39	2000
1,2,4-Trimethylbenzene	<2000		2000		ug/L			05/01/14 01:39	2000
1,3,5-Trimethylbenzene	<2000		2000		ug/L			05/01/14 01:39	2000
Vinyl chloride	<2000		2000		ug/L			05/01/14 01:39	2000
Xylenes, Total	<6000		6000		ug/L			05/01/14 01:39	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*75 - 110*		*05/01/14 01:39*	*2000*
Dibromofluoromethane (Surr)	*105*		*75 - 120*		*05/01/14 01:39*	*2000*
Toluene-d8 (Surr)	*95*		*80 - 120*		*05/01/14 01:39*	*2000*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**58.8**		5.00		mg/L			04/30/14 18:08	5
Chloride	**15.4**		5.00		mg/L			04/30/14 18:08	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.412**		0.100		mg/L		04/29/14 08:07	04/30/14 00:14	1
Manganese	**0.0510**		0.0100		mg/L		04/29/14 08:07	04/30/14 00:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.35**		1.00		mg/L			04/29/14 11:57	1
Nitrite as N	<0.100		0.100		mg/L			04/26/14 10:44	1
Nitrate as N	<0.100		0.100		mg/L			04/26/14 10:43	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-29499-6

Date Collected: 04/25/14 00:00
Matrix: Water
Date Received: 04/26/14 09:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/01/14 03:20	1
Benzene	<0.500		0.500		ug/L			05/01/14 03:20	1
Bromobenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
Bromochloromethane	<5.00		5.00		ug/L			05/01/14 03:20	1
Bromodichloromethane	<1.00		1.00		ug/L			05/01/14 03:20	1
Bromoform	<5.00		5.00		ug/L			05/01/14 03:20	1
Bromomethane	<4.00		4.00		ug/L			05/01/14 03:20	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/01/14 03:20	1
n-Butylbenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
Carbon disulfide	<1.00		1.00		ug/L			05/01/14 03:20	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/01/14 03:20	1
Chlorobenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/01/14 03:20	1
Chloroethane	<4.00		4.00		ug/L			05/01/14 03:20	1
Chloroform	<1.00		1.00		ug/L			05/01/14 03:20	1
Chloromethane	<3.00		3.00		ug/L			05/01/14 03:20	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/01/14 03:20	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/01/14 03:20	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			05/01/14 03:20	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			05/01/14 03:20	1
Dibromomethane	<1.00		1.00		ug/L			05/01/14 03:20	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/01/14 03:20	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/01/14 03:20	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/01/14 03:20	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/01/14 03:20	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/01/14 03:20	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/01/14 03:20	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/01/14 03:20	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/01/14 03:20	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/01/14 03:20	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/01/14 03:20	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/01/14 03:20	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/01/14 03:20	1
Ethylbenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/01/14 03:20	1
Hexane	<1.00		1.00		ug/L			05/01/14 03:20	1
Isopropylbenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/01/14 03:20	1
Methylene Chloride	<5.00		5.00		ug/L			05/01/14 03:20	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/01/14 03:20	1
Naphthalene	<5.00		5.00		ug/L			05/01/14 03:20	1
N-Propylbenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
Styrene	<1.00		1.00		ug/L			05/01/14 03:20	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/01/14 03:20	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-29499-6

Date Collected: 04/25/14 00:00
Matrix: Water
Date Received: 04/26/14 09:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/01/14 03:20	1
Tetrachloroethene	<1.00		1.00		ug/L			05/01/14 03:20	1
Toluene	<1.00		1.00		ug/L			05/01/14 03:20	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/01/14 03:20	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/01/14 03:20	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/01/14 03:20	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/01/14 03:20	1
Trichloroethene	<1.00		1.00		ug/L			05/01/14 03:20	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/01/14 03:20	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/01/14 03:20	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/01/14 03:20	1
Vinyl chloride	<1.00		1.00		ug/L			05/01/14 03:20	1
Xylenes, Total	<3.00		3.00		ug/L			05/01/14 03:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 110*		*05/01/14 03:20*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*05/01/14 03:20*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*05/01/14 03:20*	*1*

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-110)	(75-120)	(80-120)
310-29499-1	MW-08	96	107	96
310-29499-1 MS	MW-08	97	102	99
310-29499-1 MSD	MW-08	101	104	100
310-29499-2	MW-15	96	108	97
310-29499-3	MW-53	99	109	98
310-29499-4	MW-31	97	106	96
310-29499-5	MW-19	91	105	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-110)	(75-120)	(80-120)
310-29499-6	Trip Blank	98	107	95
LCS 310-46760/5	Lab Control Sample	99	102	101
MB 310-46760/8	Method Blank	96	101	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-46760/8
Matrix: Water
Analysis Batch: 46760

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			04/30/14 20:35	1
Benzene	<0.500		0.500		ug/L			04/30/14 20:35	1
Bromobenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
Bromochloromethane	<5.00		5.00		ug/L			04/30/14 20:35	1
Bromodichloromethane	<1.00		1.00		ug/L			04/30/14 20:35	1
Bromoform	<5.00		5.00		ug/L			04/30/14 20:35	1
Bromomethane	<4.00		4.00		ug/L			04/30/14 20:35	1
2-Butanone (MEK)	<10.0		10.0		ug/L			04/30/14 20:35	1
n-Butylbenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
sec-Butylbenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
tert-Butylbenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
Carbon disulfide	<1.00		1.00		ug/L			04/30/14 20:35	1
Carbon tetrachloride	<2.00		2.00		ug/L			04/30/14 20:35	1
Chlorobenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
Chlorodibromomethane	<5.00		5.00		ug/L			04/30/14 20:35	1
Chloroethane	<4.00		4.00		ug/L			04/30/14 20:35	1
Chloroform	<1.00		1.00		ug/L			04/30/14 20:35	1
Chloromethane	<3.00		3.00		ug/L			04/30/14 20:35	1
2-Chlorotoluene	<1.00		1.00		ug/L			04/30/14 20:35	1
4-Chlorotoluene	<1.00		1.00		ug/L			04/30/14 20:35	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			04/30/14 20:35	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			04/30/14 20:35	1
Dibromomethane	<1.00		1.00		ug/L			04/30/14 20:35	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			04/30/14 20:35	1
1,1-Dichloroethane	<1.00		1.00		ug/L			04/30/14 20:35	1
1,2-Dichloroethane	<1.00		1.00		ug/L			04/30/14 20:35	1
1,1-Dichloroethene	<2.00		2.00		ug/L			04/30/14 20:35	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			04/30/14 20:35	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			04/30/14 20:35	1
1,2-Dichloropropane	<1.00		1.00		ug/L			04/30/14 20:35	1
1,3-Dichloropropane	<1.00		1.00		ug/L			04/30/14 20:35	1
2,2-Dichloropropane	<4.00		4.00		ug/L			04/30/14 20:35	1
1,1-Dichloropropene	<1.00		1.00		ug/L			04/30/14 20:35	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			04/30/14 20:35	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			04/30/14 20:35	1
Ethylbenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
Hexachlorobutadiene	<5.00		5.00		ug/L			04/30/14 20:35	1
Hexane	<1.00		1.00		ug/L			04/30/14 20:35	1
Isopropylbenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
p-Isopropyltoluene	<1.00		1.00		ug/L			04/30/14 20:35	1
Methylene Chloride	<5.00		5.00		ug/L			04/30/14 20:35	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/30/14 20:35	1
Naphthalene	<5.00		5.00		ug/L			04/30/14 20:35	1
N-Propylbenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
Styrene	<1.00		1.00		ug/L			04/30/14 20:35	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-46760/8
Matrix: Water
Analysis Batch: 46760

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			04/30/14 20:35	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			04/30/14 20:35	1
Tetrachloroethene	<1.00		1.00		ug/L			04/30/14 20:35	1
Toluene	<1.00		1.00		ug/L			04/30/14 20:35	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			04/30/14 20:35	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			04/30/14 20:35	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			04/30/14 20:35	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			04/30/14 20:35	1
Trichloroethene	<1.00		1.00		ug/L			04/30/14 20:35	1
Trichlorofluoromethane	<4.00		4.00		ug/L			04/30/14 20:35	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			04/30/14 20:35	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			04/30/14 20:35	1
Vinyl chloride	<1.00		1.00		ug/L			04/30/14 20:35	1
Xylenes, Total	<3.00		3.00		ug/L			04/30/14 20:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 110*		*04/30/14 20:35*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*04/30/14 20:35*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/30/14 20:35*	*1*

Lab Sample ID: LCS 310-46760/5
Matrix: Water
Analysis Batch: 46760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	42.19		ug/L		105	60 - 150
Benzene	20.0	21.68		ug/L		108	70 - 130
Bromobenzene	20.0	22.04		ug/L		110	75 - 130
Bromochloromethane	20.0	23.05		ug/L		115	65 - 145
Bromodichloromethane	20.0	21.45		ug/L		107	60 - 130
Bromoform	20.0	21.00		ug/L		105	30 - 125
Bromomethane	20.0	20.07		ug/L		100	35 - 130
2-Butanone (MEK)	40.0	44.83		ug/L		112	55 - 140
n-Butylbenzene	20.0	18.92		ug/L		95	55 - 135
sec-Butylbenzene	20.0	20.84		ug/L		104	65 - 135
tert-Butylbenzene	20.0	22.33		ug/L		112	60 - 135
Carbon disulfide	20.0	20.98		ug/L		105	40 - 130
Carbon tetrachloride	20.0	21.56		ug/L		108	55 - 130
Chlorobenzene	20.0	22.11		ug/L		111	75 - 125
Chlorodibromomethane	20.0	21.21		ug/L		106	45 - 125
Chloroethane	20.0	24.81		ug/L		124	55 - 135
Chloroform	20.0	20.73		ug/L		104	70 - 125
Chloromethane	20.0	21.54		ug/L		108	30 - 125
2-Chlorotoluene	20.0	22.24		ug/L		111	75 - 135
4-Chlorotoluene	20.0	23.12		ug/L		116	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	21.91		ug/L		110	35 - 130
1,2-Dibromoethane (EDB)	20.0	22.19		ug/L		111	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-46760/5
Matrix: Water
Analysis Batch: 46760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	22.80		ug/L		114	75 - 130
1,2-Dichlorobenzene	20.0	22.02		ug/L		110	65 - 135
1,3-Dichlorobenzene	20.0	22.40		ug/L		112	70 - 130
1,4-Dichlorobenzene	20.0	22.09		ug/L		110	60 - 140
Dichlorodifluoromethane	20.0	17.78		ug/L		89	35 - 130
1,1-Dichloroethane	20.0	21.99		ug/L		110	60 - 130
1,2-Dichloroethane	20.0	22.34		ug/L		112	65 - 140
1,1-Dichloroethene	20.0	21.07		ug/L		105	60 - 135
cis-1,2-Dichloroethene	20.0	20.07		ug/L		100	70 - 135
trans-1,2-Dichloroethene	20.0	21.81		ug/L		109	60 - 145
1,2-Dichloropropane	20.0	21.96		ug/L		110	65 - 130
1,3-Dichloropropane	20.0	22.33		ug/L		112	75 - 125
2,2-Dichloropropane	20.0	20.62		ug/L		103	25 - 120
1,1-Dichloropropene	20.0	21.82		ug/L		109	60 - 140
cis-1,3-Dichloropropene	20.0	21.81		ug/L		109	30 - 120
trans-1,3-Dichloropropene	20.0	19.91		ug/L		100	35 - 120
Ethylbenzene	20.0	22.33		ug/L		112	70 - 130
Hexachlorobutadiene	20.0	20.74		ug/L		104	60 - 135
Hexane	20.0	18.21		ug/L		91	40 - 135
Isopropylbenzene	20.0	22.48		ug/L		112	70 - 125
p-Isopropyltoluene	20.0	21.36		ug/L		107	60 - 140
Methylene Chloride	20.0	21.39		ug/L		107	55 - 145
Methyl tert-butyl ether	20.0	22.75		ug/L		114	50 - 135
Naphthalene	20.0	22.29		ug/L		111	40 - 135
N-Propylbenzene	20.0	22.07		ug/L		110	70 - 135
Styrene	20.0	23.08		ug/L		115	70 - 130
1,1,1,2-Tetrachloroethane	20.0	21.91		ug/L		110	65 - 120
1,1,2,2-Tetrachloroethane	20.0	22.26		ug/L		111	65 - 130
Tetrachloroethene	20.0	23.23		ug/L		116	70 - 135
Toluene	20.0	22.44		ug/L		112	70 - 135
1,2,3-Trichlorobenzene	20.0	22.37		ug/L		112	55 - 130
1,2,4-Trichlorobenzene	20.0	20.00		ug/L		100	40 - 135
1,1,1-Trichloroethane	20.0	21.37		ug/L		107	60 - 125
1,1,2-Trichloroethane	20.0	22.22		ug/L		111	75 - 125
Trichloroethene	20.0	20.05		ug/L		100	70 - 130
Trichlorofluoromethane	20.0	20.41		ug/L		102	55 - 145
1,2,3-Trichloropropane	20.0	22.10		ug/L		110	60 - 150
1,2,4-Trimethylbenzene	20.0	20.30		ug/L		102	70 - 140
1,3,5-Trimethylbenzene	20.0	22.65		ug/L		113	70 - 140
Vinyl chloride	20.0	22.24		ug/L		111	45 - 135
Xylenes, Total	40.0	45.43		ug/L		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 110*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-29499-1 MS
Matrix: Ground Water
Analysis Batch: 46760

Client Sample ID: MW-08
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<10.0		40.0	35.98		ug/L		90	45 - 150
Benzene	<0.500		20.0	19.35		ug/L		97	50 - 130
Bromobenzene	<1.00		20.0	19.39		ug/L		97	60 - 135
Bromochloromethane	<5.00		20.0	21.70		ug/L		109	55 - 145
Bromodichloromethane	<1.00		20.0	18.41		ug/L		92	50 - 130
Bromoform	<5.00		20.0	18.00		ug/L		90	30 - 125
Bromomethane	<4.00		20.0	15.37		ug/L		77	30 - 130
2-Butanone (MEK)	<10.0		40.0	39.28		ug/L		98	45 - 140
n-Butylbenzene	<1.00		20.0	15.33		ug/L		77	40 - 135
sec-Butylbenzene	<1.00		20.0	18.24		ug/L		91	40 - 135
tert-Butylbenzene	<1.00		20.0	19.45		ug/L		97	40 - 135
Carbon disulfide	<1.00		20.0	19.77		ug/L		99	30 - 130
Carbon tetrachloride	<2.00		20.0	19.57		ug/L		98	35 - 130
Chlorobenzene	<1.00		20.0	19.13		ug/L		96	60 - 130
Chlorodibromomethane	<5.00		20.0	18.08		ug/L		90	35 - 130
Chloroethane	<4.00		20.0	25.69		ug/L		128	40 - 135
Chloroform	<1.00		20.0	19.03		ug/L		95	55 - 125
Chloromethane	<3.00		20.0	21.27		ug/L		106	25 - 125
2-Chlorotoluene	<1.00		20.0	19.18		ug/L		96	55 - 140
4-Chlorotoluene	<1.00		20.0	19.83		ug/L		99	50 - 140
1,2-Dibromo-3-Chloropropane	<10.0		20.0	16.01		ug/L		80	35 - 130
1,2-Dibromoethane (EDB)	<10.0		20.0	18.63		ug/L		93	55 - 140
Dibromomethane	<1.00		20.0	19.45		ug/L		97	60 - 135
1,2-Dichlorobenzene	<1.00		20.0	18.00		ug/L		90	55 - 140
1,3-Dichlorobenzene	<1.00		20.0	19.25		ug/L		96	55 - 135
1,4-Dichlorobenzene	<1.00		20.0	18.67		ug/L		93	55 - 140
Dichlorodifluoromethane	<3.00		20.0	20.51		ug/L		103	15 - 130
1,1-Dichloroethane	<1.00		20.0	20.05		ug/L		100	50 - 130
1,2-Dichloroethane	<1.00		20.0	19.60		ug/L		98	55 - 140
1,1-Dichloroethene	<2.00		20.0	19.90		ug/L		100	35 - 135
cis-1,2-Dichloroethene	<1.00		20.0	17.99		ug/L		89	45 - 135
trans-1,2-Dichloroethene	<1.00		20.0	19.94		ug/L		100	45 - 145
1,2-Dichloropropane	<1.00		20.0	19.68		ug/L		98	55 - 130
1,3-Dichloropropane	<1.00		20.0	19.48		ug/L		97	60 - 135
2,2-Dichloropropane	<4.00		20.0	17.72		ug/L		89	20 - 120
1,1-Dichloropropene	<1.00		20.0	19.76		ug/L		99	40 - 140
cis-1,3-Dichloropropene	<5.00		20.0	17.74		ug/L		89	25 - 120
trans-1,3-Dichloropropene	<5.00		20.0	16.72		ug/L		84	25 - 120
Ethylbenzene	<1.00		20.0	19.81		ug/L		99	45 - 135
Hexachlorobutadiene	<5.00		20.0	17.44		ug/L		87	40 - 135
Hexane	<1.00		20.0	16.82		ug/L		84	25 - 135
Isopropylbenzene	<1.00		20.0	19.54		ug/L		98	45 - 125
p-Isopropyltoluene	<1.00		20.0	17.97		ug/L		90	40 - 140
Methylene Chloride	<5.00		20.0	18.66		ug/L		93	45 - 145
Methyl tert-butyl ether	<1.00		20.0	18.83		ug/L		94	40 - 135
Naphthalene	<5.00		20.0	14.47		ug/L		72	40 - 135
N-Propylbenzene	<1.00		20.0	19.29		ug/L		96	45 - 140
Styrene	<1.00		20.0	19.97		ug/L		100	40 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-29499-1 MS
Matrix: Ground Water
Analysis Batch: 46760

Client Sample ID: MW-08
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	<1.00		20.0	18.04		ug/L		90	50 - 130
1,1,2,2-Tetrachloroethane	<1.00		20.0	18.78		ug/L		94	55 - 140
Tetrachloroethene	<1.00		20.0	18.60		ug/L		93	40 - 135
Toluene	<1.00		20.0	19.44		ug/L		97	45 - 135
1,2,3-Trichlorobenzene	<5.00		20.0	13.83		ug/L		69	50 - 140
1,2,4-Trichlorobenzene	<5.00		20.0	13.41		ug/L		67	40 - 135
1,1,1-Trichloroethane	<1.00		20.0	19.60		ug/L		98	40 - 125
1,1,2-Trichloroethane	<1.00		20.0	19.49		ug/L		97	60 - 130
Trichloroethene	<1.00		20.0	18.16		ug/L		89	50 - 130
Trichlorofluoromethane	<4.00		20.0	21.15		ug/L		106	40 - 145
1,2,3-Trichloropropane	<1.00		20.0	18.52		ug/L		93	55 - 150
1,2,4-Trimethylbenzene	<1.00		20.0	17.42		ug/L		87	45 - 140
1,3,5-Trimethylbenzene	<1.00		20.0	19.41		ug/L		97	45 - 140
Vinyl chloride	<1.00		20.0	22.92		ug/L		115	30 - 135
Xylenes, Total	<3.00		40.0	39.63		ug/L		99	40 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*75 - 110*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: 310-29499-1 MSD
Matrix: Ground Water
Analysis Batch: 46760

Client Sample ID: MW-08
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	<10.0		40.0	36.54		ug/L		91	45 - 150	2	20
Benzene	<0.500		20.0	18.97		ug/L		95	50 - 130	2	20
Bromobenzene	<1.00		20.0	18.35		ug/L		92	60 - 135	5	20
Bromochloromethane	<5.00		20.0	20.96		ug/L		105	55 - 145	3	20
Bromodichloromethane	<1.00		20.0	18.08		ug/L		90	50 - 130	2	20
Bromoform	<5.00		20.0	17.47		ug/L		87	30 - 125	3	20
Bromomethane	<4.00		20.0	16.08		ug/L		80	30 - 130	4	20
2-Butanone (MEK)	<10.0		40.0	38.29		ug/L		96	45 - 140	3	20
n-Butylbenzene	<1.00		20.0	15.82		ug/L		79	40 - 135	3	20
sec-Butylbenzene	<1.00		20.0	18.25		ug/L		91	40 - 135	0	15
tert-Butylbenzene	<1.00		20.0	19.02		ug/L		95	40 - 135	2	15
Carbon disulfide	<1.00		20.0	18.34		ug/L		92	30 - 130	7	20
Carbon tetrachloride	<2.00		20.0	18.79		ug/L		94	35 - 130	4	20
Chlorobenzene	<1.00		20.0	18.58		ug/L		93	60 - 130	3	20
Chlorodibromomethane	<5.00		20.0	18.22		ug/L		91	35 - 130	1	20
Chloroethane	<4.00		20.0	23.13		ug/L		116	40 - 135	10	20
Chloroform	<1.00		20.0	17.96		ug/L		90	55 - 125	6	20
Chloromethane	<3.00		20.0	20.31		ug/L		102	25 - 125	5	20
2-Chlorotoluene	<1.00		20.0	18.68		ug/L		93	55 - 140	3	20
4-Chlorotoluene	<1.00		20.0	19.00		ug/L		95	50 - 140	4	20
1,2-Dibromo-3-Chloropropane	<10.0		20.0	16.09		ug/L		80	35 - 130	1	20
1,2-Dibromoethane (EDB)	<10.0		20.0	18.51		ug/L		93	55 - 140	1	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-29499-1 MSD
Matrix: Ground Water
Analysis Batch: 46760

Client Sample ID: MW-08
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	<1.00		20.0	18.71		ug/L		94	60 - 135	4	20
1,2-Dichlorobenzene	<1.00		20.0	18.24		ug/L		91	55 - 140	1	20
1,3-Dichlorobenzene	<1.00		20.0	18.89		ug/L		94	55 - 135	2	20
1,4-Dichlorobenzene	<1.00		20.0	17.97		ug/L		90	55 - 140	4	20
Dichlorodifluoromethane	<3.00		20.0	19.81		ug/L		99	15 - 130	3	20
1,1-Dichloroethane	<1.00		20.0	19.20		ug/L		96	50 - 130	4	20
1,2-Dichloroethane	<1.00		20.0	19.04		ug/L		95	55 - 140	3	20
1,1-Dichloroethene	<2.00		20.0	18.70		ug/L		93	35 - 135	6	20
cis-1,2-Dichloroethene	<1.00		20.0	17.85		ug/L		88	45 - 135	1	20
trans-1,2-Dichloroethene	<1.00		20.0	18.76		ug/L		94	45 - 145	6	20
1,2-Dichloropropane	<1.00		20.0	18.34		ug/L		92	55 - 130	7	20
1,3-Dichloropropane	<1.00		20.0	18.89		ug/L		94	60 - 135	3	20
2,2-Dichloropropane	<4.00		20.0	16.77		ug/L		84	20 - 120	5	20
1,1-Dichloropropene	<1.00		20.0	18.34		ug/L		92	40 - 140	7	20
cis-1,3-Dichloropropene	<5.00		20.0	17.59		ug/L		88	25 - 120	1	20
trans-1,3-Dichloropropene	<5.00		20.0	16.52		ug/L		83	25 - 120	1	20
Ethylbenzene	<1.00		20.0	18.82		ug/L		94	45 - 135	5	20
Hexachlorobutadiene	<5.00		20.0	16.84		ug/L		84	40 - 135	3	20
Hexane	<1.00		20.0	16.67		ug/L		83	25 - 135	1	20
Isopropylbenzene	<1.00		20.0	18.87		ug/L		94	45 - 125	3	20
p-Isopropyltoluene	<1.00		20.0	18.22		ug/L		91	40 - 140	1	20
Methylene Chloride	<5.00		20.0	17.53		ug/L		88	45 - 145	6	20
Methyl tert-butyl ether	<1.00		20.0	18.78		ug/L		94	40 - 135	0	20
Naphthalene	<5.00		20.0	15.12		ug/L		76	40 - 135	4	20
N-Propylbenzene	<1.00		20.0	18.81		ug/L		94	45 - 140	3	20
Styrene	<1.00		20.0	19.01		ug/L		95	40 - 135	5	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	18.33		ug/L		92	50 - 130	2	20
1,1,2,2-Tetrachloroethane	<1.00		20.0	18.59		ug/L		93	55 - 140	1	20
Tetrachloroethene	<1.00		20.0	17.71		ug/L		89	40 - 135	5	20
Toluene	<1.00		20.0	19.09		ug/L		95	45 - 135	2	20
1,2,3-Trichlorobenzene	<5.00		20.0	14.72		ug/L		74	50 - 140	6	20
1,2,4-Trichlorobenzene	<5.00		20.0	14.32		ug/L		72	40 - 135	7	20
1,1,1-Trichloroethane	<1.00		20.0	18.58		ug/L		93	40 - 125	5	20
1,1,2-Trichloroethane	<1.00		20.0	19.30		ug/L		96	60 - 130	1	20
Trichloroethene	<1.00		20.0	17.05		ug/L		84	50 - 130	6	20
Trichlorofluoromethane	<4.00		20.0	20.61		ug/L		103	40 - 145	3	20
1,2,3-Trichloropropane	<1.00		20.0	17.75		ug/L		89	55 - 150	4	20
1,2,4-Trimethylbenzene	<1.00		20.0	16.80		ug/L		84	45 - 140	4	20
1,3,5-Trimethylbenzene	<1.00		20.0	18.68		ug/L		93	45 - 140	4	20
Vinyl chloride	<1.00		20.0	21.75		ug/L		109	30 - 135	5	20
Xylenes, Total	<3.00		40.0	38.46		ug/L		96	40 - 135	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*75 - 110*
Dibromofluoromethane (Surr)	*104*		*75 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-46881/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46881

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			04/30/14 18:08	1
Chloride	<1.00		1.00		mg/L			04/30/14 18:08	1

Lab Sample ID: LCS 310-46881/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46881

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.556		mg/L		96	90 - 110
Chloride	10.0	10.44		mg/L		104	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-46630/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46776 — **Prep Batch: 46630**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		04/29/14 08:07	04/29/14 23:24	1
Manganese	<0.0100		0.0100		mg/L		04/29/14 08:07	04/29/14 23:24	1

Lab Sample ID: LCS 310-46630/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46776 — **Prep Batch: 46630**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.141		mg/L		107	85 - 110
Manganese	1.00	1.058		mg/L		106	85 - 115

Lab Sample ID: 310-29499-2 MS — **Client Sample ID: MW-15**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46776 — **Prep Batch: 46630**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.106		2.00	2.466		mg/L		118	75 - 125
Manganese	0.0123		1.00	1.024		mg/L		101	80 - 115

Lab Sample ID: 310-29499-1 DU — **Client Sample ID: MW-08**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46776 — **Prep Batch: 46630**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	<0.100		0.1384		mg/L		NC	20
Manganese	<0.0100		<0.0100		mg/L		NC	15

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-46629/36 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/29/14 01:22	1

Lab Sample ID: MB 310-46629/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/28/14 16:34	1

Lab Sample ID: LCS 310-46629/37 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.854		mg/L		97	90 - 110

Lab Sample ID: LCS 310-46629/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.889		mg/L		98	90 - 110

Lab Sample ID: 310-29499-1 MS — **Client Sample ID: MW-08**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46629

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	3.09		4.99	7.656		mg/L		91	75 - 125

Lab Sample ID: MB 310-46943/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/29/14 19:13	1

Lab Sample ID: LCS 310-46943/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.942		mg/L		99	90 - 110

Lab Sample ID: 310-29499-1 MSD — **Client Sample ID: MW-08**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46943

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	3.09		4.99	8.097		mg/L		100	75 - 125	6	20

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-46470/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			04/26/14 10:15	1

Lab Sample ID: LCS 310-46470/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.5440		mg/L		109	90 - 110

Lab Sample ID: 310-29499-1 MS — **Client Sample ID: MW-08**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46470

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	<0.100		0.400	0.4284		mg/L		107	75 - 125

Lab Sample ID: 310-29499-1 MSD — **Client Sample ID: MW-08**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46470

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.100		0.400	0.4266		mg/L		107	75 - 125	0	10

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-46469/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46469

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			04/26/14 10:15	1

Lab Sample ID: LCS 310-46469/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 46469

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	16.8	17.04		mg/L		101	90 - 110

Lab Sample ID: 310-29499-1 MS — **Client Sample ID: MW-08**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 46469

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	<0.100		0.200	0.2674		mg/L		98	75 - 125

Method: SM 4500 NO3 E - Nitrogen, Nitrate (Continued)

Lab Sample ID: 310-29499-1 MSD
Matrix: Ground Water
Analysis Batch: 46469

Client Sample ID: MW-08
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	<0.100		0.200	0.2741		mg/L		101	75 - 125	2	20

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 46760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29499-1	MW-08	Total/NA	Ground Water	8260C	
310-29499-1 MS	MW-08	Total/NA	Ground Water	8260C	
310-29499-1 MSD	MW-08	Total/NA	Ground Water	8260C	
310-29499-2	MW-15	Total/NA	Ground Water	8260C	
310-29499-3	MW-53	Total/NA	Ground Water	8260C	
310-29499-4	MW-31	Total/NA	Ground Water	8260C	
310-29499-5	MW-19	Total/NA	Ground Water	8260C	
310-29499-6	Trip Blank	Total/NA	Water	8260C	
LCS 310-46760/5	Lab Control Sample	Total/NA	Water	8260C	
MB 310-46760/8	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 46881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29499-1	MW-08	Total/NA	Ground Water	9056A	
310-29499-2	MW-15	Total/NA	Ground Water	9056A	
310-29499-3	MW-53	Total/NA	Ground Water	9056A	
310-29499-4	MW-31	Total/NA	Ground Water	9056A	
310-29499-5	MW-19	Total/NA	Ground Water	9056A	
LCS 310-46881/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-46881/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 46630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29499-1	MW-08	Total/NA	Ground Water	3010A	
310-29499-1 DU	MW-08	Total/NA	Ground Water	3010A	
310-29499-2	MW-15	Total/NA	Ground Water	3010A	
310-29499-2 MS	MW-15	Total/NA	Ground Water	3010A	
310-29499-3	MW-53	Total/NA	Ground Water	3010A	
310-29499-4	MW-31	Total/NA	Ground Water	3010A	
310-29499-5	MW-19	Total/NA	Ground Water	3010A	
LCS 310-46630/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-46630/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 46776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29499-1	MW-08	Total/NA	Ground Water	6010C	46630
310-29499-1 DU	MW-08	Total/NA	Ground Water	6010C	46630
310-29499-2	MW-15	Total/NA	Ground Water	6010C	46630
310-29499-2 MS	MW-15	Total/NA	Ground Water	6010C	46630
310-29499-3	MW-53	Total/NA	Ground Water	6010C	46630
310-29499-4	MW-31	Total/NA	Ground Water	6010C	46630
310-29499-5	MW-19	Total/NA	Ground Water	6010C	46630
LCS 310-46630/2-A	Lab Control Sample	Total/NA	Water	6010C	46630
MB 310-46630/1-A	Method Blank	Total/NA	Water	6010C	46630

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

General Chemistry

Analysis Batch: 46469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29499-1	MW-08	Total/NA	Ground Water	SM 4500 NO3 E	
310-29499-1 MS	MW-08	Total/NA	Ground Water	SM 4500 NO3 E	
310-29499-1 MSD	MW-08	Total/NA	Ground Water	SM 4500 NO3 E	
310-29499-2	MW-15	Total/NA	Ground Water	SM 4500 NO3 E	
310-29499-3	MW-53	Total/NA	Ground Water	SM 4500 NO3 E	
310-29499-4	MW-31	Total/NA	Ground Water	SM 4500 NO3 E	
310-29499-5	MW-19	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-46469/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-46469/4	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 46470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29499-1	MW-08	Total/NA	Ground Water	SM 4500 NO2 B	
310-29499-1 MS	MW-08	Total/NA	Ground Water	SM 4500 NO2 B	
310-29499-1 MSD	MW-08	Total/NA	Ground Water	SM 4500 NO2 B	
310-29499-2	MW-15	Total/NA	Ground Water	SM 4500 NO2 B	
310-29499-3	MW-53	Total/NA	Ground Water	SM 4500 NO2 B	
310-29499-4	MW-31	Total/NA	Ground Water	SM 4500 NO2 B	
310-29499-5	MW-19	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-46470/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-46470/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 46629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29499-1	MW-08	Total/NA	Ground Water	9060A	
310-29499-1 MS	MW-08	Total/NA	Ground Water	9060A	
310-29499-2	MW-15	Total/NA	Ground Water	9060A	
310-29499-3	MW-53	Total/NA	Ground Water	9060A	
310-29499-4	MW-31	Total/NA	Ground Water	9060A	
LCS 310-46629/37	Lab Control Sample	Total/NA	Water	9060A	
LCS 310-46629/7	Lab Control Sample	Total/NA	Water	9060A	
MB 310-46629/36	Method Blank	Total/NA	Water	9060A	
MB 310-46629/5	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 46741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29499-5	MW-19	Total/NA	Ground Water	9060A	

Analysis Batch: 46943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-29499-1 MSD	MW-08	Total/NA	Ground Water	9060A	
LCS 310-46943/6	Lab Control Sample	Total/NA	Water	9060A	
MB 310-46943/5	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-08

Lab Sample ID: 310-29499-1
Date Collected: 04/25/14 07:10
Matrix: Ground Water
Date Received: 04/26/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46760	05/01/14 02:04	KNW	TAL CF
Total/NA	Analysis	9056A		5	46881	04/30/14 18:08	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/30/14 00:02	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/29/14 01:58	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46470	04/26/14 10:44	ETM	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46469	04/26/14 10:20	ETM	TAL CF

Client Sample ID: MW-15

Lab Sample ID: 310-29499-2
Date Collected: 04/25/14 07:35
Matrix: Ground Water
Date Received: 04/26/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46760	05/01/14 02:30	KNW	TAL CF
Total/NA	Analysis	9056A		5	46881	04/30/14 18:08	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/30/14 00:06	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/28/14 21:34	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46470	04/26/14 10:44	ETM	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46469	04/26/14 10:34	ETM	TAL CF

Client Sample ID: MW-53

Lab Sample ID: 310-29499-3
Date Collected: 04/25/14 08:05
Matrix: Ground Water
Date Received: 04/26/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46760	05/01/14 02:55	KNW	TAL CF
Total/NA	Analysis	9056A		5	46881	04/30/14 18:08	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/30/14 00:10	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/29/14 00:28	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46470	04/26/14 10:44	ETM	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46469	04/26/14 10:37	ETM	TAL CF

Client Sample ID: MW-31

Lab Sample ID: 310-29499-4
Date Collected: 04/25/14 08:35
Matrix: Ground Water
Date Received: 04/26/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	46760	05/01/14 01:14	KNW	TAL CF
Total/NA	Analysis	9056A		5	46881	04/30/14 18:08	CDD	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Client Sample ID: MW-31

Lab Sample ID: 310-29499-4

Date Collected: 04/25/14 08:35
Matrix: Ground Water
Date Received: 04/26/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/30/14 00:12	OAD	TAL CF
Total/NA	Analysis	9060A		1	46629	04/28/14 22:10	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46470	04/26/14 10:44	ETM	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46469	04/26/14 10:40	ETM	TAL CF

Client Sample ID: MW-19

Lab Sample ID: 310-29499-5

Date Collected: 04/25/14 09:05
Matrix: Ground Water
Date Received: 04/26/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2000	46760	05/01/14 01:39	KNW	TAL CF
Total/NA	Analysis	9056A		5	46881	04/30/14 18:08	CDD	TAL CF
Total/NA	Prep	3010A			46630	04/29/14 08:07	SAV	TAL CF
Total/NA	Analysis	6010C		1	46776	04/30/14 00:14	OAD	TAL CF
Total/NA	Analysis	9060A		1	46741	04/29/14 11:57	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	46470	04/26/14 10:44	ETM	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	46469	04/26/14 10:43	ETM	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-29499-6

Date Collected: 04/25/14 00:00
Matrix: Water
Date Received: 04/26/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	46760	05/01/14 03:20	KNW	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA	IHLAP		101044	11-01-14
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	7	12-01-13 *
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14
Oregon	NELAP	10	IA100001	09-29-14
Wisconsin	State Program	5	999917270	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-29499-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt
Cedar Falls Facility

310-29499 Chain of Custody

Client: Golder Assoc. Project: Electrolux

City: _____ State: _____

Date: 4-26-14 Receiver's Initials: CH Time (Delivered): 9:15

Temperature Record:

Cooler ID# (If Applicable): TA 60

Uncorrected Temp: 0.7 °C

Corrected Temp: 0.5 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Temperature Log Form
Cedar Falls Facility

Client: Golder Assoc Project: Electrolux

City: _____ State: _____

Date: 4-26-14 Receiver's Initials: CH Time (Delivered): 9:15

Temperature Record:

Cooler ID# (If Applicable): DM15

Uncorrected Temp: 0.2 °C

Corrected Temp: 0.0 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Andrew Koff
(Signature)

Your PO #: 103-87305
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: JPeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red & White Label)	Preservative: HCl (Blue & White Label)	Preservative: NaOH (Orange & White Label)	Preservative: H_2SO_4 Plastic (Yellow & White Label)	Preservative: H_2SO_4 Glass(Yellow & White Label)	Preservative: None (Black & White Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other Specify:Stormwater	Analyze For: 8260 Volatiles	Analyze For: Nitrate, Nitrite	Analyze For: Sulfate, Chloride	Analyze For: TOC	Analyze For: Iron, Manganese	Analyze For: E-mail results	Analyze For: Send QC with report
MW-08	4/25/14	710	6	X			X	X	X		X		X		X						X	X	X	X	X	X	X
MW-15		735																									
MW-53		805																									
MW-31		835																									
MW-19		905																									
trip blank							X		X												X						

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	4/25/14	1300						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	4/30/14	915						

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-08	310-29499-B-1	Plastic 250ml - with Sulfuric Acid	<2		
MW-08	310-29499-C-1	Plastic 250ml - with Nitric Acid	<2		
MW-15	310-29499-B-2	Plastic 250ml - with Sulfuric Acid	<2		
MW-15	310-29499-C-2	Plastic 250ml - with Nitric Acid	<2		
MW-53	310-29499-B-3	Plastic 250ml - with Sulfuric Acid	<2		
MW-53	310-29499-C-3	Plastic 250ml - with Nitric Acid	<2		
MW-31	310-29499-B-4	Plastic 250ml - with Sulfuric Acid	<2		
MW-31	310-29499-C-4	Plastic 250ml - with Nitric Acid	<2		
MW-19	310-29499-B-5	Plastic 250ml - with Sulfuric Acid	<2		
MW-19	310-29499-C-5	Plastic 250ml - with Nitric Acid	<2		

CMJ
4-26-14

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-29499-1
SDG Number: 103-87305

Login Number: 29499
List Number: 1
Creator: Facciani, Melene K

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Microseeps/Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

May 8, 2014

Jim Peace
Golder Associates
670 N Commercial St
Suite 103
Manchester, NH 03101

RE: **ELECTROLUX / 103-87305**
Microseeps Workorder: 12016

Dear Jim Peace:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday, April 28, 2014. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robbin Robl 05/08/2014
rrobl@microseeps.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 35

CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Microseeps/Pace Analytical Energy Services, LLC.

Microseeps/Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

CERTIFICATE OF ANALYSIS

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Microseeps/Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID	Sample ID	Matrix	Date Collected	Date Received
120160001	MW-24	Water	4/22/2014 13:45	4/28/2014 08:30
120160002	MW-62	Water	4/22/2014 14:40	4/28/2014 08:30
120160003	MW-65	Water	4/22/2014 16:45	4/28/2014 08:30
120160004	MW-64	Water	4/23/2014 08:40	4/28/2014 08:30
120160005	MW-26D	Water	4/23/2014 12:35	4/28/2014 08:30
120160006	MW-26S	Water	4/23/2014 13:25	4/28/2014 08:30
120160007	MW-25D	Water	4/23/2014 14:40	4/28/2014 08:30
120160008	MW-25S	Water	4/23/2014 15:30	4/28/2014 08:30
120160009	MW-63	Water	4/24/2014 14:25	4/28/2014 08:30
120160010	MW-61	Water	4/24/2014 12:40	4/28/2014 08:30
120160011	MW-46	Water	4/24/2014 11:15	4/28/2014 08:30
120160012	MW-29	Water	4/24/2014 10:05	4/28/2014 08:30
120160013	MW-47D	Water	4/24/2014 08:20	4/28/2014 08:30
120160014	MW-28	Water	4/24/2014 07:15	4/28/2014 08:30
120160015	DUP-01	Water	4/24/2014 00:00	4/28/2014 08:30
120160016	MW-57	Water	4/24/2014 15:40	4/28/2014 08:30
120160017	MW-43D	Water	4/24/2014 16:50	4/28/2014 08:30
120160018	DUP-02	Water	4/24/2014 00:00	4/28/2014 08:30
120160019	MW-08	Water	4/25/2014 07:10	4/28/2014 08:30
120160020	MW-15	Water	4/25/2014 07:35	4/28/2014 08:30
120160021	MW-53	Water	4/25/2014 08:05	4/28/2014 08:30
120160022	MW-31	Water	4/25/2014 08:35	4/28/2014 08:30
120160023	MW-19	Water	4/25/2014 09:05	4/28/2014 08:30

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160001** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-24** Date Collected: 4/22/2014 13:45

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**1.8**	ug/l	0.10	0.029	1			5/6/2014 08:58	BW	
Ethane	**0.028**	ug/l	0.025	0.0030	1			5/6/2014 08:58	BW	
Ethene	**0.043**	ug/l	0.025	0.0030	1			5/6/2014 08:58	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160002** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-62** Date Collected: 4/22/2014 14:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**580**	ug/l	0.10	0.029	1			5/6/2014 09:08	BW	
Ethane	**0.34**	ug/l	0.025	0.0030	1			5/6/2014 09:08	BW	
Ethene	**0.99**	ug/l	0.025	0.0030	1			5/6/2014 09:08	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160003** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-65** Date Collected: 4/22/2014 16:45

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**110**	ug/l	0.10	0.029	1			5/6/2014 09:19	BW	
Ethane	**0.38**	ug/l	0.025	0.0030	1			5/6/2014 09:19	BW	
Ethene	**3.0**	ug/l	0.025	0.0030	1			5/6/2014 09:19	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160004** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-64** Date Collected: 4/23/2014 08:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.2**	ug/l	0.10	0.029	1			5/6/2014 09:29	BW	
Ethane	**0.10**	ug/l	0.025	0.0030	1			5/6/2014 09:29	BW	
Ethene	**0.044**	ug/l	0.025	0.0030	1			5/6/2014 09:29	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160005** Date Received: 4/28/2014 08:30 Matrix: Water
Sample ID: **MW-26D** Date Collected: 4/23/2014 12:35

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.57**	ug/l	0.10	0.029	1			5/6/2014 09:39	BW	
Ethane	**0.11**	ug/l	0.025	0.0030	1			5/6/2014 09:39	BW	
Ethene	**0.062**	ug/l	0.025	0.0030	1			5/6/2014 09:39	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160006** Date Received: 4/28/2014 08:30 Matrix: Water
Sample ID: **MW-26S** Date Collected: 4/23/2014 13:25

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**5.6**	ug/l	0.10	0.029	1			5/6/2014 10:29	BW	
Ethane	**0.33**	ug/l	0.025	0.0030	1			5/6/2014 10:29	BW	
Ethene	**0.060**	ug/l	0.025	0.0030	1			5/6/2014 10:29	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160007** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-25D** Date Collected: 4/23/2014 14:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.70**	ug/l	0.10	0.029	1			5/6/2014 10:41	BW	
Ethane	**<0.025**	ug/l	0.025	0.0030	1			5/6/2014 10:41	BW	
Ethene	**0.033**	ug/l	0.025	0.0030	1			5/6/2014 10:41	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160008** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-25S** Date Collected: 4/23/2014 15:30

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2900**	ug/l	0.10	0.029	1			5/6/2014 10:58	BW	
Ethane	**0.56**	ug/l	0.025	0.0030	1			5/6/2014 10:58	BW	
Ethene	**1200**	ug/l	0.025	0.0030	1			5/6/2014 10:58	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160009** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-63** Date Collected: 4/24/2014 14:25

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.2**	ug/l	0.10	0.029	1			5/6/2014 11:11	BW	
Ethane	**0.11**	ug/l	0.025	0.0030	1			5/6/2014 11:11	BW	
Ethene	**0.12**	ug/l	0.025	0.0030	1			5/6/2014 11:11	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160010** Date Received: 4/28/2014 08:30 Matrix: Water
Sample ID: **MW-61** Date Collected: 4/24/2014 12:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.41**	ug/l	0.10	0.029	1			5/6/2014 11:23	BW	
Ethane	**0.48**	ug/l	0.025	0.0030	1			5/6/2014 11:23	BW	
Ethene	**0.080**	ug/l	0.025	0.0030	1			5/6/2014 11:23	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160011** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-46** Date Collected: 4/24/2014 11:15

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**12**	ug/l	0.10	0.029	1			5/6/2014 11:33	BW	
Ethane	**1.1**	ug/l	0.025	0.0030	1			5/6/2014 11:33	BW	
Ethene	**0.48**	ug/l	0.025	0.0030	1			5/6/2014 11:33	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160012** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-29** Date Collected: 4/24/2014 10:05

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.71**	ug/l	0.10	0.029	1			5/6/2014 11:43	BW	
Ethane	**0.64**	ug/l	0.025	0.0030	1			5/6/2014 11:43	BW	
Ethene	**0.56**	ug/l	0.025	0.0030	1			5/6/2014 11:43	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160013** Date Received: 4/28/2014 08:30 Matrix: Water
Sample ID: **MW-47D** Date Collected: 4/24/2014 08:20

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**160**	ug/l	0.10	0.029	1			5/6/2014 11:52	BW	
Ethane	**2.7**	ug/l	0.025	0.0030	1			5/6/2014 11:52	BW	
Ethene	**270**	ug/l	0.025	0.0030	1			5/6/2014 11:52	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160014** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-28** Date Collected: 4/24/2014 07:15

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2100**	ug/l	0.10	0.029	1			5/6/2014 12:45	BW	
Ethane	**0.75**	ug/l	0.025	0.0030	1			5/6/2014 12:45	BW	
Ethene	**1600**	ug/l	0.025	0.0030	1			5/6/2014 12:45	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160015** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **DUP-01** Date Collected: 4/24/2014 00:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**160**	ug/l	0.10	0.029	1			5/6/2014 12:56	BW	
Ethane	**2.9**	ug/l	0.025	0.0030	1			5/6/2014 12:56	BW	
Ethene	**280**	ug/l	0.025	0.0030	1			5/6/2014 12:56	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160016** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-57** Date Collected: 4/24/2014 15:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.0**	ug/l	0.10	0.029	1			5/7/2014 11:24	BW	
Ethane	**0.098**	ug/l	0.025	0.0030	1			5/7/2014 11:24	BW	
Ethene	**0.11**	ug/l	0.025	0.0030	1			5/7/2014 11:24	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160017** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-43D** Date Collected: 4/24/2014 16:50

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.5**	ug/l	0.10	0.029	1			5/7/2014 12:50	BW	
Ethane	**0.24**	ug/l	0.025	0.0030	1			5/7/2014 12:50	BW	
Ethene	**0.30**	ug/l	0.025	0.0030	1			5/7/2014 12:50	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160018** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **DUP-02** Date Collected: 4/24/2014 00:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.0**	ug/l	0.10	0.029	1			5/7/2014 13:01	BW	
Ethane	**0.033**	ug/l	0.025	0.0030	1			5/7/2014 13:01	BW	
Ethene	**0.12**	ug/l	0.025	0.0030	1			5/7/2014 13:01	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160019** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-08** Date Collected: 4/25/2014 07:10

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.88**	ug/l	0.10	0.029	1			5/7/2014 13:11	BW	
Ethane	**0.044**	ug/l	0.025	0.0030	1			5/7/2014 13:11	BW	
Ethene	**0.18**	ug/l	0.025	0.0030	1			5/7/2014 13:11	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160020** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-15** Date Collected: 4/25/2014 07:35

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.4**	ug/l	0.10	0.029	1			5/7/2014 13:22	BW	
Ethane	**<0.025**	ug/l	0.025	0.0030	1			5/7/2014 13:22	BW	
Ethene	**0.057**	ug/l	0.025	0.0030	1			5/7/2014 13:22	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160021** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-53** Date Collected: 4/25/2014 08:05

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**9.4**	ug/l	0.10	0.029	1			5/7/2014 14:05	BW	
Ethane	**0.32**	ug/l	0.025	0.0030	1			5/7/2014 14:05	BW	
Ethene	**0.61**	ug/l	0.025	0.0030	1			5/7/2014 14:05	BW	

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ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160022** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-31** Date Collected: 4/25/2014 08:35

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**24**	ug/l	0.10	0.029	1			5/7/2014 14:16	BW	
Ethane	**1.3**	ug/l	0.025	0.0030	1			5/7/2014 14:16	BW	
Ethene	**0.034**	ug/l	0.025	0.0030	1			5/7/2014 14:16	BW	

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Microseeps/Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID: **120160023** Date Received: 4/28/2014 08:30 Matrix: Water

Sample ID: **MW-19** Date Collected: 4/25/2014 09:05

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**5.2**	ug/l	0.10	0.029	1			5/7/2014 14:27	BW	
Ethane	**1.2**	ug/l	0.025	0.0030	1			5/7/2014 14:27	BW	
Ethene	**0.086**	ug/l	0.025	0.0030	1			5/7/2014 14:27	BW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 12016 ELECTROLUX / 103-87305

DEFINITIONS/QUALIFIERS

Disclaimer : The Pennsylvania Department of Environmental Protection (PADEP) has decided to no longer recognize analyses that do not produce data for primary compliance, for NELAP accreditation. The methods affected by this decision are AM20GAx, AM21G, SW846 7199 and AM4.02. The laboratory shall continue to administer the NELAP/TNI standard requirements in the performance of these methods.

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).

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Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 12016 ELECTROLUX / 103-87305

QC Batch: DISG/3751 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 120160001, 120160002, 120160003, 120160004, 120160005, 120160006, 120160007, 120160008, 120160009, 120160010, 120160011, 120160012, 120160013

METHOD BLANK: 27507

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 27508 27509

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	720	700	96	93	80-120	3.2	20	
Ethane	ug/l	38	38	38	101	100	80-120	1	20	
Ethene	ug/l	35	36	35	101	100	80-120	1	20	

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QUALITY CONTROL DATA

Workorder: 12016 ELECTROLUX / 103-87305

QC Batch: DISG/3753 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 120160014, 120160015

METHOD BLANK: 27533

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 27534 27535

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	740	770	99	103	80-120	4	20	
Ethane	ug/l	38	39	40	103	106	80-120	2.9	20	
Ethene	ug/l	35	37	37	104	106	80-120	1.9	20	

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QUALITY CONTROL DATA

Workorder: 12016 ELECTROLUX / 103-87305

QC Batch: DISG/3755 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 120160016

METHOD BLANK: 27542

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 27543 27544

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	720	780	97	104	80-120	7	20	
Ethane	ug/l	38	36	40	96	107	80-120	11	20	
Ethene	ug/l	35	34	38	96	107	80-120	11	20	

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QUALITY CONTROL DATA

Workorder: 12016 ELECTROLUX / 103-87305

QC Batch: DISG/3756 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 120160017, 120160018, 120160019, 120160020, 120160021, 120160022, 120160023

METHOD BLANK: 27545

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 27546 27547

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	770	750	103	100	80-120	3	20	
Ethane	ug/l	38	40	40	106	107	80-120	0.94	20	
Ethene	ug/l	35	38	38	106	107	80-120	0.94	20	

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Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 12016 ELECTROLUX / 103-87305

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
120160001	MW-24			AM20GAX	DISG/3751
120160002	MW-62			AM20GAX	DISG/3751
120160003	MW-65			AM20GAX	DISG/3751
120160004	MW-64			AM20GAX	DISG/3751
120160005	MW-26D			AM20GAX	DISG/3751
120160006	MW-26S			AM20GAX	DISG/3751
120160007	MW-25D			AM20GAX	DISG/3751
120160008	MW-25S			AM20GAX	DISG/3751
120160009	MW-63			AM20GAX	DISG/3751
120160010	MW-61			AM20GAX	DISG/3751
120160011	MW-46			AM20GAX	DISG/3751
120160012	MW-29			AM20GAX	DISG/3751
120160013	MW-47D			AM20GAX	DISG/3751
120160014	MW-28			AM20GAX	DISG/3753
120160015	DUP-01			AM20GAX	DISG/3753
120160016	MW-57			AM20GAX	DISG/3755
120160017	MW-43D			AM20GAX	DISG/3756
120160018	DUP-02			AM20GAX	DISG/3756
120160019	MW-08			AM20GAX	DISG/3756
120160020	MW-15			AM20GAX	DISG/3756
120160021	MW-53			AM20GAX	DISG/3756
120160022	MW-31			AM20GAX	DISG/3756
120160023	MW-19			AM20GAX	DISG/3756

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

12016

000459

Section A Required Client Information:

Company:	Golder Associates
Address:	670 N Commercial St, #103 Manchester, NH 03101
Email To:	JPeace@golder.com
Phone:	508 6680880
Fax:	603 668 1199
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Jim Peace
Copy To:	Andrew Koff
Purchase Order No.:	103-87305
Project Name:	Electrolux - Jefferson, IA
Project Number:	103-87305

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: IA

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Y/N ➡ N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zink Acetate & NaOH	Other Na_2PO_4	Analysis Test ➡ MEE (light hydrocarb)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-24	WT	G			4/22/14	1345		2								X	X		
2	MW-62					4/22/14	1440													
3	MW-65					4/22/14	1645													
4	MW-64					4/23/14	840													
5	MW-260						1235													
6	MW-26S						1325													
7	MW-250						1440													
8	MW-25S						1530													
9	MW-63					4/24/14	1425													
10	MW-61						1240													
11	MW-46						1115													
12	MW-29						1005													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	- Samplers	4/25/14	1300	PACES	4.28.14	0830	2	Y	Y	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Andrew Koff

SIGNATURE of SAMPLER: _____ DATE Signed (MM/DD/YY): 4/25/14

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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12016

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

000458

Section A Required Client Information:

Company: Golder Associates
Address: 670 N Commercial St, Ste 103, Manchester, NH 03101
Email To: JPeace@golder.com
Phone: 603668 0880 Fax: 603668 1199
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Jim Peace
Copy To: Andrew Koff
Purchase Order No.: 103-87305
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: IA

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Analysis Test: MEE (light hydrocarbons) Y/N: N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zink Acetate & NaOH	Other Na_2PO_4	MEE (light hydrocarbons) Y/N	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-47D	WT	G			4/24/14	820		2								X	X		
2	MW-28	WT	G			4/24/14	715		1								1	1		
3	Dup-01	WT	G			1	—		1								1	1		
4	MW-57	WT	G			1	1540		1								1	1		
5	MW-43D	WT	G			1	1650		1								1	1		
6	Dup-02	WT	G			1	—		1								1	1		
7	MW-08	WT	G			4/25/14	710		1								1	1		
8	MW-15	1	1			1	735		1								1	1		
9	MW-53	1	1			1	805		1								1	1		
10	MW-31	1	1			1	835		1								1	1		
11	MW-19	1	1			1	905		1								1	1		
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] - Sampler	4/25/14	1300	[signature] PACS	4.28.14	0830	2	Y	Y	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Andrew Koff

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/25/14

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form

Client Name: Golder **Project:** Electrolux/ 103-87305 **Lab Work Order:** 12016

A. Shipping/Container Information (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 8033 9316 9669

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 29 C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC	✓			
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
Microseeps containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by : LG **Date:** 4.28.14

Project Manager Review : RR **Date:** 4/29/14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-34864-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
7/24/2014 10:55:47 AM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-34864-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-34864-1

Comments
No additional comments.

Receipt
The samples were received on 7/16/2014 9:44 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 54497 recovered above the upper control limit for Carbon tetrachloride (30.4 %D), Vinyl chloride (30.6 %D), Chloroethane (31.4 %D), Dichlorodifluoromethane (58.5 %D), 1,2-Dichloroethane (20.5 %D), 1,1,1-Trichloroethane (23.4 %D), and Trichlorofluoromethane (68.6 %D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-54497/3).

Method(s) 8260C: The laboratory control sample (LCS) for batch 54497 recovered outside control limits for the following analytes: Dichlorodifluoromethane and 2,2-Dichloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method(s) 9056A: The following sample was diluted due to the nature of the sample matrix: MW-62 (310-34864-1). Elevated reporting limits (RLs) are provided for chloride.

Method(s) 9056A: The following sample was diluted due to the nature of the sample matrix: MW-65 (310-34864-2). Elevated reporting limits (RLs) are provided for sulfate.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-34864-1	MW-62	Ground Water	07/15/14 10:45	07/16/14 09:44
310-34864-2	MW-65	Ground Water	07/15/14 16:00	07/16/14 09:44
310-34864-3	Trip Blank	Water	07/15/14 00:00	07/16/14 09:44

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Client Sample ID: MW-62 — Lab Sample ID: 310-34864-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	25.4		5.00		mg/L	5		9056A	Total/NA
Iron	1.31		0.100		mg/L	1		6010C	Total/NA
Manganese	0.495		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.47		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-65 — Lab Sample ID: 310-34864-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.17		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	44.7		1.00		ug/L	1		8260C	Total/NA
Chloride	7.33		5.00		mg/L	5		9056A	Total/NA
Iron	1.67		0.100		mg/L	1		6010C	Total/NA
Manganese	0.352		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	3.47		1.00		mg/L	1		9060A	Total/NA
Nitrite as N	0.208		0.100		mg/L	1		SM 4500 NO2 B	Total/NA
Nitrate as N	0.219		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-34864-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Client Sample ID: MW-62
Date Collected: 07/15/14 10:45
Date Received: 07/16/14 09:44

Lab Sample ID: 310-34864-1
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/16/14 12:24	1
Benzene	<0.500		0.500		ug/L			07/16/14 12:24	1
Bromobenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
Bromochloromethane	<5.00		5.00		ug/L			07/16/14 12:24	1
Bromodichloromethane	<1.00		1.00		ug/L			07/16/14 12:24	1
Bromoform	<5.00		5.00		ug/L			07/16/14 12:24	1
Bromomethane	<4.00		4.00		ug/L			07/16/14 12:24	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/16/14 12:24	1
n-Butylbenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
Carbon disulfide	<1.00		1.00		ug/L			07/16/14 12:24	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/16/14 12:24	1
Chlorobenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/16/14 12:24	1
Chloroethane	<4.00		4.00		ug/L			07/16/14 12:24	1
Chloroform	<1.00		1.00		ug/L			07/16/14 12:24	1
Chloromethane	<3.00		3.00		ug/L			07/16/14 12:24	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/16/14 12:24	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/16/14 12:24	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/16/14 12:24	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/16/14 12:24	1
Dibromomethane	<1.00		1.00		ug/L			07/16/14 12:24	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
Dichlorodifluoromethane	<3.00	*	3.00		ug/L			07/16/14 12:24	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/16/14 12:24	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/16/14 12:24	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/16/14 12:24	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/16/14 12:24	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/16/14 12:24	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/16/14 12:24	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/16/14 12:24	1
2,2-Dichloropropane	<4.00	*	4.00		ug/L			07/16/14 12:24	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/16/14 12:24	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/16/14 12:24	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/16/14 12:24	1
Ethylbenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/16/14 12:24	1
Hexane	<1.00		1.00		ug/L			07/16/14 12:24	1
Isopropylbenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/16/14 12:24	1
Methylene Chloride	<5.00		5.00		ug/L			07/16/14 12:24	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/16/14 12:24	1
Naphthalene	<5.00		5.00		ug/L			07/16/14 12:24	1
N-Propylbenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
Styrene	<1.00		1.00		ug/L			07/16/14 12:24	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/16/14 12:24	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Client Sample ID: MW-62

Date Collected: 07/15/14 10:45
Date Received: 07/16/14 09:44

Lab Sample ID: 310-34864-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/16/14 12:24	1
Tetrachloroethene	<1.00		1.00		ug/L			07/16/14 12:24	1
Toluene	<1.00		1.00		ug/L			07/16/14 12:24	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/16/14 12:24	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/16/14 12:24	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/16/14 12:24	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/16/14 12:24	1
Trichloroethene	<1.00		1.00		ug/L			07/16/14 12:24	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/16/14 12:24	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/16/14 12:24	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/16/14 12:24	1
Vinyl chloride	<1.00		1.00		ug/L			07/16/14 12:24	1
Xylenes, Total	<3.00		3.00		ug/L			07/16/14 12:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*07/16/14 12:24*	*1*
Dibromofluoromethane (Surr)	*118*		*75 - 120*		*07/16/14 12:24*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/16/14 12:24*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**25.4**		5.00		mg/L			07/18/14 12:22	5
Chloride	<5.00		5.00		mg/L			07/18/14 12:22	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.31**		0.100		mg/L		07/17/14 08:09	07/17/14 21:55	1
Manganese	**0.495**		0.0100		mg/L		07/17/14 08:09	07/17/14 21:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.47**		1.00		mg/L			07/18/14 16:54	1
Nitrite as N	<0.100		0.100		mg/L			07/16/14 13:00	1
Nitrate as N	<0.100		0.100		mg/L			07/16/14 12:59	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Client Sample ID: MW-65

Date Collected: 07/15/14 16:00
Date Received: 07/16/14 09:44

Lab Sample ID: 310-34864-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/16/14 12:49	1
Benzene	<0.500		0.500		ug/L			07/16/14 12:49	1
Bromobenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
Bromochloromethane	<5.00		5.00		ug/L			07/16/14 12:49	1
Bromodichloromethane	<1.00		1.00		ug/L			07/16/14 12:49	1
Bromoform	<5.00		5.00		ug/L			07/16/14 12:49	1
Bromomethane	<4.00		4.00		ug/L			07/16/14 12:49	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/16/14 12:49	1
n-Butylbenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
Carbon disulfide	<1.00		1.00		ug/L			07/16/14 12:49	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/16/14 12:49	1
Chlorobenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/16/14 12:49	1
Chloroethane	<4.00		4.00		ug/L			07/16/14 12:49	1
Chloroform	<1.00		1.00		ug/L			07/16/14 12:49	1
Chloromethane	<3.00		3.00		ug/L			07/16/14 12:49	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/16/14 12:49	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/16/14 12:49	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/16/14 12:49	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/16/14 12:49	1
Dibromomethane	<1.00		1.00		ug/L			07/16/14 12:49	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
Dichlorodifluoromethane	<3.00	*	3.00		ug/L			07/16/14 12:49	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/16/14 12:49	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/16/14 12:49	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/16/14 12:49	1
cis-1,2-Dichloroethene	**2.17**		1.00		ug/L			07/16/14 12:49	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/16/14 12:49	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/16/14 12:49	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/16/14 12:49	1
2,2-Dichloropropane	<4.00	*	4.00		ug/L			07/16/14 12:49	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/16/14 12:49	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/16/14 12:49	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/16/14 12:49	1
Ethylbenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/16/14 12:49	1
Hexane	<1.00		1.00		ug/L			07/16/14 12:49	1
Isopropylbenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/16/14 12:49	1
Methylene Chloride	<5.00		5.00		ug/L			07/16/14 12:49	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/16/14 12:49	1
Naphthalene	<5.00		5.00		ug/L			07/16/14 12:49	1
N-Propylbenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
Styrene	<1.00		1.00		ug/L			07/16/14 12:49	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/16/14 12:49	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Client Sample ID: MW-65

Date Collected: 07/15/14 16:00
Date Received: 07/16/14 09:44

Lab Sample ID: 310-34864-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/16/14 12:49	1
Tetrachloroethene	<1.00		1.00		ug/L			07/16/14 12:49	1
Toluene	<1.00		1.00		ug/L			07/16/14 12:49	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/16/14 12:49	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/16/14 12:49	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/16/14 12:49	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/16/14 12:49	1
Trichloroethene	**44.7**		1.00		ug/L			07/16/14 12:49	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/16/14 12:49	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/16/14 12:49	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/16/14 12:49	1
Vinyl chloride	<1.00		1.00		ug/L			07/16/14 12:49	1
Xylenes, Total	<3.00		3.00		ug/L			07/16/14 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*		*07/16/14 12:49*	*1*
Dibromofluoromethane (Surr)	*114*		*75 - 120*		*07/16/14 12:49*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/16/14 12:49*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			07/18/14 12:22	5
Chloride	**7.33**		5.00		mg/L			07/18/14 12:22	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.67**		0.100		mg/L		07/17/14 08:09	07/17/14 22:04	1
Manganese	**0.352**		0.0100		mg/L		07/17/14 08:09	07/17/14 22:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.47**		1.00		mg/L			07/18/14 17:43	1
Nitrite as N	**0.208**		0.100		mg/L			07/16/14 13:00	1
Nitrate as N	**0.219**		0.100		mg/L			07/16/14 13:47	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-34864-3

Date Collected: 07/15/14 00:00
Matrix: Water
Date Received: 07/16/14 09:44

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/16/14 11:58	1
Benzene	<0.500		0.500		ug/L			07/16/14 11:58	1
Bromobenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
Bromochloromethane	<5.00		5.00		ug/L			07/16/14 11:58	1
Bromodichloromethane	<1.00		1.00		ug/L			07/16/14 11:58	1
Bromoform	<5.00		5.00		ug/L			07/16/14 11:58	1
Bromomethane	<4.00		4.00		ug/L			07/16/14 11:58	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/16/14 11:58	1
n-Butylbenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
Carbon disulfide	<1.00		1.00		ug/L			07/16/14 11:58	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/16/14 11:58	1
Chlorobenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/16/14 11:58	1
Chloroethane	<4.00		4.00		ug/L			07/16/14 11:58	1
Chloroform	<1.00		1.00		ug/L			07/16/14 11:58	1
Chloromethane	<3.00		3.00		ug/L			07/16/14 11:58	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/16/14 11:58	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/16/14 11:58	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/16/14 11:58	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/16/14 11:58	1
Dibromomethane	<1.00		1.00		ug/L			07/16/14 11:58	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
Dichlorodifluoromethane	<3.00	*	3.00		ug/L			07/16/14 11:58	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/16/14 11:58	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/16/14 11:58	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/16/14 11:58	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/16/14 11:58	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/16/14 11:58	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/16/14 11:58	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/16/14 11:58	1
2,2-Dichloropropane	<4.00	*	4.00		ug/L			07/16/14 11:58	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/16/14 11:58	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/16/14 11:58	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/16/14 11:58	1
Ethylbenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/16/14 11:58	1
Hexane	<1.00		1.00		ug/L			07/16/14 11:58	1
Isopropylbenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/16/14 11:58	1
Methylene Chloride	<5.00		5.00		ug/L			07/16/14 11:58	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/16/14 11:58	1
Naphthalene	<5.00		5.00		ug/L			07/16/14 11:58	1
N-Propylbenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
Styrene	<1.00		1.00		ug/L			07/16/14 11:58	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/16/14 11:58	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-34864-3

Date Collected: 07/15/14 00:00
Matrix: Water
Date Received: 07/16/14 09:44

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/16/14 11:58	1
Tetrachloroethene	<1.00		1.00		ug/L			07/16/14 11:58	1
Toluene	<1.00		1.00		ug/L			07/16/14 11:58	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/16/14 11:58	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/16/14 11:58	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/16/14 11:58	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/16/14 11:58	1
Trichloroethene	<1.00		1.00		ug/L			07/16/14 11:58	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/16/14 11:58	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/16/14 11:58	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/16/14 11:58	1
Vinyl chloride	<1.00		1.00		ug/L			07/16/14 11:58	1
Xylenes, Total	<3.00		3.00		ug/L			07/16/14 11:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/16/14 11:58*	*1*
Dibromofluoromethane (Surr)	*117*		*75 - 120*		*07/16/14 11:58*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/16/14 11:58*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-34864-1	MW-62	100	118	100
310-34864-1 MS	MW-62	100	109	98
310-34864-1 MSD	MW-62	99	111	98
310-34864-2	MW-65	97	114	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-34864-3	Trip Blank	103	117	99
LCS 310-54497/4	Lab Control Sample	96	116	101
MB 310-54497/7	Method Blank	97	117	97

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-54497/7
Matrix: Water
Analysis Batch: 54497

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/16/14 09:17	1
Benzene	<0.500		0.500		ug/L			07/16/14 09:17	1
Bromobenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
Bromochloromethane	<5.00		5.00		ug/L			07/16/14 09:17	1
Bromodichloromethane	<1.00		1.00		ug/L			07/16/14 09:17	1
Bromoform	<5.00		5.00		ug/L			07/16/14 09:17	1
Bromomethane	<4.00		4.00		ug/L			07/16/14 09:17	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/16/14 09:17	1
n-Butylbenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
Carbon disulfide	<1.00		1.00		ug/L			07/16/14 09:17	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/16/14 09:17	1
Chlorobenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/16/14 09:17	1
Chloroethane	<4.00		4.00		ug/L			07/16/14 09:17	1
Chloroform	<1.00		1.00		ug/L			07/16/14 09:17	1
Chloromethane	<3.00		3.00		ug/L			07/16/14 09:17	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/16/14 09:17	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/16/14 09:17	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/16/14 09:17	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/16/14 09:17	1
Dibromomethane	<1.00		1.00		ug/L			07/16/14 09:17	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/16/14 09:17	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/16/14 09:17	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/16/14 09:17	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/16/14 09:17	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/16/14 09:17	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/16/14 09:17	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/16/14 09:17	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/16/14 09:17	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/16/14 09:17	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/16/14 09:17	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/16/14 09:17	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/16/14 09:17	1
Ethylbenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/16/14 09:17	1
Hexane	<1.00		1.00		ug/L			07/16/14 09:17	1
Isopropylbenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/16/14 09:17	1
Methylene Chloride	<5.00		5.00		ug/L			07/16/14 09:17	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/16/14 09:17	1
Naphthalene	<5.00		5.00		ug/L			07/16/14 09:17	1
N-Propylbenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
Styrene	<1.00		1.00		ug/L			07/16/14 09:17	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-54497/7
Matrix: Water
Analysis Batch: 54497

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/16/14 09:17	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/16/14 09:17	1
Tetrachloroethene	<1.00		1.00		ug/L			07/16/14 09:17	1
Toluene	<1.00		1.00		ug/L			07/16/14 09:17	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/16/14 09:17	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/16/14 09:17	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/16/14 09:17	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/16/14 09:17	1
Trichloroethene	<1.00		1.00		ug/L			07/16/14 09:17	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/16/14 09:17	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/16/14 09:17	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/16/14 09:17	1
Vinyl chloride	<1.00		1.00		ug/L			07/16/14 09:17	1
Xylenes, Total	<3.00		3.00		ug/L			07/16/14 09:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*		*07/16/14 09:17*	*1*
Dibromofluoromethane (Surr)	*117*		*75 - 120*		*07/16/14 09:17*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*07/16/14 09:17*	*1*

Lab Sample ID: LCS 310-54497/4
Matrix: Water
Analysis Batch: 54497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	43.34		ug/L		108	60 - 150
Benzene	20.0	20.21		ug/L		101	70 - 130
Bromobenzene	20.0	21.68		ug/L		108	75 - 130
Bromochloromethane	20.0	23.19		ug/L		116	65 - 145
Bromodichloromethane	20.0	23.18		ug/L		116	60 - 130
Bromoform	20.0	22.84		ug/L		114	30 - 125
Bromomethane	20.0	21.97		ug/L		110	35 - 130
2-Butanone (MEK)	40.0	43.48		ug/L		109	55 - 140
n-Butylbenzene	20.0	20.86		ug/L		104	55 - 135
sec-Butylbenzene	20.0	21.47		ug/L		107	65 - 135
tert-Butylbenzene	20.0	21.35		ug/L		107	60 - 135
Carbon disulfide	20.0	18.06		ug/L		90	40 - 130
Carbon tetrachloride	20.0	24.71		ug/L		124	55 - 130
Chlorobenzene	20.0	20.86		ug/L		104	75 - 125
Chlorodibromomethane	20.0	23.79		ug/L		119	45 - 125
Chloroethane	20.0	21.56		ug/L		108	55 - 135
Chloroform	20.0	22.98		ug/L		115	70 - 125
Chloromethane	20.0	20.23		ug/L		101	30 - 125
2-Chlorotoluene	20.0	20.94		ug/L		105	75 - 135
4-Chlorotoluene	20.0	22.28		ug/L		111	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	21.84		ug/L		109	35 - 130
1,2-Dibromoethane (EDB)	20.0	22.06		ug/L		110	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-54497/4
Matrix: Water
Analysis Batch: 54497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	22.31		ug/L		112	75 - 130
1,2-Dichlorobenzene	20.0	20.63		ug/L		103	65 - 135
1,3-Dichlorobenzene	20.0	21.58		ug/L		108	70 - 130
1,4-Dichlorobenzene	20.0	20.99		ug/L		105	60 - 140
Dichlorodifluoromethane	20.0	26.52	*	ug/L		133	35 - 130
1,1-Dichloroethane	20.0	21.30		ug/L		107	60 - 130
1,2-Dichloroethane	20.0	24.98		ug/L		125	65 - 140
1,1-Dichloroethene	20.0	19.94		ug/L		100	60 - 135
cis-1,2-Dichloroethene	20.0	20.56		ug/L		103	70 - 135
trans-1,2-Dichloroethene	20.0	20.71		ug/L		104	60 - 145
1,2-Dichloropropane	20.0	20.16		ug/L		101	65 - 130
1,3-Dichloropropane	20.0	21.89		ug/L		109	75 - 125
2,2-Dichloropropane	20.0	24.24	*	ug/L		121	25 - 120
1,1-Dichloropropene	20.0	21.52		ug/L		108	60 - 140
cis-1,3-Dichloropropene	20.0	21.18		ug/L		106	30 - 120
trans-1,3-Dichloropropene	20.0	22.65		ug/L		113	35 - 120
Ethylbenzene	20.0	20.87		ug/L		104	70 - 130
Hexachlorobutadiene	20.0	22.23		ug/L		111	60 - 135
Hexane	20.0	20.26		ug/L		101	40 - 135
Isopropylbenzene	20.0	20.80		ug/L		104	70 - 125
p-Isopropyltoluene	20.0	20.14		ug/L		101	60 - 140
Methylene Chloride	20.0	19.58		ug/L		98	55 - 145
Methyl tert-butyl ether	20.0	22.02		ug/L		110	50 - 135
Naphthalene	20.0	18.55		ug/L		93	40 - 135
N-Propylbenzene	20.0	20.99		ug/L		105	70 - 135
Styrene	20.0	20.91		ug/L		105	70 - 130
1,1,1,2-Tetrachloroethane	20.0	23.62		ug/L		118	65 - 120
1,1,2,2-Tetrachloroethane	20.0	20.61		ug/L		103	65 - 130
Tetrachloroethene	20.0	20.64		ug/L		103	70 - 135
Toluene	20.0	20.24		ug/L		101	70 - 135
1,2,3-Trichlorobenzene	20.0	19.37		ug/L		97	55 - 130
1,2,4-Trichlorobenzene	20.0	20.28		ug/L		101	40 - 135
1,1,1-Trichloroethane	20.0	23.82		ug/L		119	60 - 125
1,1,2-Trichloroethane	20.0	21.36		ug/L		107	75 - 125
Trichloroethene	20.0	21.21		ug/L		106	70 - 130
Trichlorofluoromethane	20.0	28.10		ug/L		140	55 - 145
1,2,3-Trichloropropane	20.0	22.53		ug/L		113	60 - 150
1,2,4-Trimethylbenzene	20.0	21.53		ug/L		108	70 - 140
1,3,5-Trimethylbenzene	20.0	22.04		ug/L		110	70 - 140
Vinyl chloride	20.0	22.18		ug/L		111	45 - 135
Xylenes, Total	40.0	40.35		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*
Dibromofluoromethane (Surr)	*116*		*75 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-34864-1 MS
Matrix: Ground Water
Analysis Batch: 54497

Client Sample ID: MW-62
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<10.0		40.0	46.93		ug/L		117	45 - 150
Benzene	<0.500		20.0	19.72		ug/L		99	50 - 130
Bromobenzene	<1.00		20.0	21.70		ug/L		108	60 - 135
Bromochloromethane	<5.00		20.0	22.51		ug/L		113	55 - 145
Bromodichloromethane	<1.00		20.0	22.99		ug/L		115	50 - 130
Bromoform	<5.00		20.0	22.01		ug/L		110	30 - 125
Bromomethane	<4.00		20.0	16.66		ug/L		83	30 - 130
2-Butanone (MEK)	<10.0		40.0	45.40		ug/L		113	45 - 140
n-Butylbenzene	<1.00		20.0	17.19		ug/L		86	40 - 135
sec-Butylbenzene	<1.00		20.0	16.98		ug/L		85	40 - 135
tert-Butylbenzene	<1.00		20.0	18.38		ug/L		92	40 - 135
Carbon disulfide	<1.00		20.0	16.69		ug/L		81	30 - 130
Carbon tetrachloride	<2.00		20.0	19.24		ug/L		96	35 - 130
Chlorobenzene	<1.00		20.0	20.70		ug/L		104	60 - 130
Chlorodibromomethane	<5.00		20.0	23.83		ug/L		119	35 - 130
Chloroethane	<4.00		20.0	20.72		ug/L		104	40 - 135
Chloroform	<1.00		20.0	22.11		ug/L		111	55 - 125
Chloromethane	<3.00		20.0	18.50		ug/L		93	25 - 125
2-Chlorotoluene	<1.00		20.0	20.13		ug/L		101	55 - 140
4-Chlorotoluene	<1.00		20.0	21.17		ug/L		106	50 - 140
1,2-Dibromo-3-Chloropropane	<10.0		20.0	22.33		ug/L		112	35 - 130
1,2-Dibromoethane (EDB)	<10.0		20.0	22.69		ug/L		113	55 - 140
Dibromomethane	<1.00		20.0	22.05		ug/L		110	60 - 135
1,2-Dichlorobenzene	<1.00		20.0	20.52		ug/L		103	55 - 140
1,3-Dichlorobenzene	<1.00		20.0	20.36		ug/L		102	55 - 135
1,4-Dichlorobenzene	<1.00		20.0	20.53		ug/L		103	55 - 140
Dichlorodifluoromethane	<3.00	*	20.0	24.26		ug/L		121	15 - 130
1,1-Dichloroethane	<1.00		20.0	20.72		ug/L		104	50 - 130
1,2-Dichloroethane	<1.00		20.0	24.94		ug/L		125	55 - 140
1,1-Dichloroethene	<2.00		20.0	16.81		ug/L		84	35 - 135
cis-1,2-Dichloroethene	<1.00		20.0	21.22		ug/L		106	45 - 135
trans-1,2-Dichloroethene	<1.00		20.0	19.95		ug/L		100	45 - 145
1,2-Dichloropropane	<1.00		20.0	21.32		ug/L		107	55 - 130
1,3-Dichloropropane	<1.00		20.0	22.72		ug/L		114	60 - 135
2,2-Dichloropropane	<4.00	*	20.0	20.55		ug/L		103	20 - 120
1,1-Dichloropropene	<1.00		20.0	18.53		ug/L		93	40 - 140
cis-1,3-Dichloropropene	<5.00		20.0	21.15		ug/L		106	25 - 120
trans-1,3-Dichloropropene	<5.00		20.0	21.67		ug/L		108	25 - 120
Ethylbenzene	<1.00		20.0	19.69		ug/L		98	45 - 135
Hexachlorobutadiene	<5.00		20.0	16.89		ug/L		84	40 - 135
Hexane	<1.00		20.0	14.84		ug/L		74	25 - 135
Isopropylbenzene	<1.00		20.0	18.34		ug/L		92	45 - 125
p-Isopropyltoluene	<1.00		20.0	17.63		ug/L		88	40 - 140
Methylene Chloride	<5.00		20.0	22.77		ug/L		114	45 - 145
Methyl tert-butyl ether	<1.00		20.0	23.06		ug/L		115	40 - 135
Naphthalene	<5.00		20.0	18.89		ug/L		94	40 - 135
N-Propylbenzene	<1.00		20.0	18.60		ug/L		93	45 - 140
Styrene	<1.00		20.0	21.23		ug/L		106	40 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-34864-1 MS
Matrix: Ground Water
Analysis Batch: 54497

Client Sample ID: MW-62
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	<1.00		20.0	22.30		ug/L		112	50 - 130
1,1,2,2-Tetrachloroethane	<1.00		20.0	20.98		ug/L		105	55 - 140
Tetrachloroethene	<1.00		20.0	18.44		ug/L		92	40 - 135
Toluene	<1.00		20.0	19.88		ug/L		99	45 - 135
1,2,3-Trichlorobenzene	<5.00		20.0	19.19		ug/L		96	50 - 140
1,2,4-Trichlorobenzene	<5.00		20.0	18.22		ug/L		91	40 - 135
1,1,1-Trichloroethane	<1.00		20.0	20.70		ug/L		104	40 - 125
1,1,2-Trichloroethane	<1.00		20.0	22.25		ug/L		111	60 - 130
Trichloroethene	<1.00		20.0	19.83		ug/L		99	50 - 130
Trichlorofluoromethane	<4.00		20.0	24.08		ug/L		120	40 - 145
1,2,3-Trichloropropane	<1.00		20.0	22.47		ug/L		112	55 - 150
1,2,4-Trimethylbenzene	<1.00		20.0	19.84		ug/L		99	45 - 140
1,3,5-Trimethylbenzene	<1.00		20.0	19.65		ug/L		98	45 - 140
Vinyl chloride	<1.00		20.0	20.51		ug/L		103	30 - 135
Xylenes, Total	<3.00		40.0	39.60		ug/L		99	40 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*
Dibromofluoromethane (Surr)	*109*		*75 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: 310-34864-1 MSD
Matrix: Ground Water
Analysis Batch: 54497

Client Sample ID: MW-62
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	<10.0		40.0	50.22		ug/L		126	45 - 150	7	20
Benzene	<0.500		20.0	19.47		ug/L		97	50 - 130	1	20
Bromobenzene	<1.00		20.0	21.09		ug/L		105	60 - 135	3	20
Bromochloromethane	<5.00		20.0	23.85		ug/L		119	55 - 145	6	20
Bromodichloromethane	<1.00		20.0	23.47		ug/L		117	50 - 130	2	20
Bromoform	<5.00		20.0	21.10		ug/L		106	30 - 125	4	20
Bromomethane	<4.00		20.0	17.75		ug/L		89	30 - 130	6	20
2-Butanone (MEK)	<10.0		40.0	45.59		ug/L		114	45 - 140	0	20
n-Butylbenzene	<1.00		20.0	16.97		ug/L		85	40 - 135	1	20
sec-Butylbenzene	<1.00		20.0	17.40		ug/L		87	40 - 135	2	15
tert-Butylbenzene	<1.00		20.0	18.49		ug/L		92	40 - 135	1	15
Carbon disulfide	<1.00		20.0	16.65		ug/L		81	30 - 130	0	20
Carbon tetrachloride	<2.00		20.0	19.00		ug/L		95	35 - 130	1	20
Chlorobenzene	<1.00		20.0	20.27		ug/L		101	60 - 130	2	20
Chlorodibromomethane	<5.00		20.0	23.62		ug/L		118	35 - 130	1	20
Chloroethane	<4.00		20.0	20.78		ug/L		104	40 - 135	0	20
Chloroform	<1.00		20.0	22.80		ug/L		114	55 - 125	3	20
Chloromethane	<3.00		20.0	18.10		ug/L		91	25 - 125	2	20
2-Chlorotoluene	<1.00		20.0	19.65		ug/L		98	55 - 140	2	20
4-Chlorotoluene	<1.00		20.0	20.57		ug/L		103	50 - 140	3	20
1,2-Dibromo-3-Chloropropane	<10.0		20.0	20.68		ug/L		103	35 - 130	8	20
1,2-Dibromoethane (EDB)	<10.0		20.0	23.13		ug/L		116	55 - 140	2	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-34864-1 MSD
Matrix: Ground Water
Analysis Batch: 54497

Client Sample ID: MW-62
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	<1.00		20.0	22.82		ug/L		114	60 - 135	3	20
1,2-Dichlorobenzene	<1.00		20.0	20.03		ug/L		100	55 - 140	2	20
1,3-Dichlorobenzene	<1.00		20.0	20.16		ug/L		101	55 - 135	1	20
1,4-Dichlorobenzene	<1.00		20.0	20.34		ug/L		102	55 - 140	1	20
Dichlorodifluoromethane	<3.00	*	20.0	23.02		ug/L		115	15 - 130	5	20
1,1-Dichloroethane	<1.00		20.0	20.62		ug/L		103	50 - 130	1	20
1,2-Dichloroethane	<1.00		20.0	25.11		ug/L		126	55 - 140	1	20
1,1-Dichloroethene	<2.00		20.0	17.11		ug/L		86	35 - 135	2	20
cis-1,2-Dichloroethene	<1.00		20.0	21.04		ug/L		105	45 - 135	1	20
trans-1,2-Dichloroethene	<1.00		20.0	19.50		ug/L		98	45 - 145	2	20
1,2-Dichloropropane	<1.00		20.0	21.09		ug/L		105	55 - 130	1	20
1,3-Dichloropropane	<1.00		20.0	22.38		ug/L		112	60 - 135	2	20
2,2-Dichloropropane	<4.00	*	20.0	20.04		ug/L		100	20 - 120	2	20
1,1-Dichloropropene	<1.00		20.0	18.33		ug/L		92	40 - 140	1	20
cis-1,3-Dichloropropene	<5.00		20.0	20.93		ug/L		105	25 - 120	1	20
trans-1,3-Dichloropropene	<5.00		20.0	22.45		ug/L		112	25 - 120	4	20
Ethylbenzene	<1.00		20.0	19.07		ug/L		95	45 - 135	3	20
Hexachlorobutadiene	<5.00		20.0	15.90		ug/L		80	40 - 135	6	20
Hexane	<1.00		20.0	14.56		ug/L		73	25 - 135	2	20
Isopropylbenzene	<1.00		20.0	18.07		ug/L		90	45 - 125	2	20
p-Isopropyltoluene	<1.00		20.0	17.69		ug/L		88	40 - 140	0	20
Methylene Chloride	<5.00		20.0	22.51		ug/L		113	45 - 145	1	20
Methyl tert-butyl ether	<1.00		20.0	23.26		ug/L		116	40 - 135	1	20
Naphthalene	<5.00		20.0	19.98		ug/L		100	40 - 135	6	20
N-Propylbenzene	<1.00		20.0	18.04		ug/L		90	45 - 140	3	20
Styrene	<1.00		20.0	20.40		ug/L		102	40 - 135	4	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	22.70		ug/L		114	50 - 130	2	20
1,1,2,2-Tetrachloroethane	<1.00		20.0	20.56		ug/L		103	55 - 140	2	20
Tetrachloroethene	<1.00		20.0	17.21		ug/L		86	40 - 135	7	20
Toluene	<1.00		20.0	18.94		ug/L		95	45 - 135	5	20
1,2,3-Trichlorobenzene	<5.00		20.0	20.28		ug/L		101	50 - 140	6	20
1,2,4-Trichlorobenzene	<5.00		20.0	20.16		ug/L		101	40 - 135	10	20
1,1,1-Trichloroethane	<1.00		20.0	20.05		ug/L		100	40 - 125	3	20
1,1,2-Trichloroethane	<1.00		20.0	23.06		ug/L		115	60 - 130	4	20
Trichloroethene	<1.00		20.0	20.52		ug/L		103	50 - 130	3	20
Trichlorofluoromethane	<4.00		20.0	23.81		ug/L		119	40 - 145	1	20
1,2,3-Trichloropropane	<1.00		20.0	21.57		ug/L		108	55 - 150	4	20
1,2,4-Trimethylbenzene	<1.00		20.0	20.42		ug/L		102	45 - 140	3	20
1,3,5-Trimethylbenzene	<1.00		20.0	19.53		ug/L		98	45 - 140	1	20
Vinyl chloride	<1.00		20.0	19.74		ug/L		99	30 - 135	4	20
Xylenes, Total	<3.00		40.0	37.94		ug/L		95	40 - 135	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*
Dibromofluoromethane (Surr)	*111*		*75 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-54884/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54884

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			07/18/14 12:22	1
Chloride	<1.00		1.00		mg/L			07/18/14 12:22	1

Lab Sample ID: LCS 310-54884/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	10.02		mg/L		100	90 - 110
Chloride	10.0	10.26		mg/L		103	90 - 110

Lab Sample ID: 310-34864-1 MS — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54884

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	25.4		25.0	51.56		mg/L		105	80 - 120
Chloride	<5.00		25.0	27.62		mg/L		100	80 - 120

Lab Sample ID: 310-34864-1 MSD — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54884

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	25.4		25.0	48.99		mg/L		94	80 - 120	5	15
Chloride	<5.00		25.0	26.64		mg/L		96	80 - 120	4	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-54673/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54808 — **Prep Batch: 54673**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/17/14 08:09	07/17/14 21:51	1
Manganese	<0.0100		0.0100		mg/L		07/17/14 08:09	07/17/14 21:51	1

Lab Sample ID: LCS 310-54673/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54808 — **Prep Batch: 54673**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	1.903		mg/L		95	85 - 110
Manganese	1.00	1.009		mg/L		101	85 - 115

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 310-34864-1 MS — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54808 — **Prep Batch: 54673**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1.31		2.00	3.288		mg/L		99	75 - 125
Manganese	0.495		1.00	1.416		mg/L		92	80 - 115

Lab Sample ID: 310-34864-1 MSD — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54808 — **Prep Batch: 54673**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	1.31		2.00	3.282		mg/L		98	75 - 125	0	20
Manganese	0.495		1.00	1.443		mg/L		95	80 - 115	2	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-54993/19 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54993

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			07/18/14 16:24	1

Lab Sample ID: LCS 310-54993/20 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54993

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.761		mg/L		95	90 - 110

Lab Sample ID: 310-34864-1 MS — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54993

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	2.47		4.99	7.255		mg/L		96	75 - 125

Lab Sample ID: 310-34864-1 MSD — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54993

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	2.47		4.99	7.414		mg/L		99	75 - 125	2	20

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-54643/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54643

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			07/16/14 13:00	1

Method: SM 4500 NO2 B - Nitrogen, Nitrite (Continued)

Lab Sample ID: LCS 310-54643/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54643

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N			0.500	0.4710		mg/L		94	90 - 110		

Lab Sample ID: 310-34864-1 MS — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54643

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N	<0.100		0.400	0.3690		mg/L		92	75 - 125		

Lab Sample ID: 310-34864-1 MSD — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54643

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.100		0.400	0.3733		mg/L		93	75 - 125	1	10

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-54646/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54646

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.-0.0021		0.100		mg/L			07/16/14 12:20	1

Lab Sample ID: LCS 310-54646/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54646

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			16.8	17.08		mg/L		102	90 - 110		

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 54497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-34864-1	MW-62	Total/NA	Ground Water	8260C	
310-34864-1 MS	MW-62	Total/NA	Ground Water	8260C	
310-34864-1 MSD	MW-62	Total/NA	Ground Water	8260C	
310-34864-2	MW-65	Total/NA	Ground Water	8260C	
310-34864-3	Trip Blank	Total/NA	Water	8260C	
LCS 310-54497/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-54497/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 54884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-34864-1	MW-62	Total/NA	Ground Water	9056A	
310-34864-1 MS	MW-62	Total/NA	Ground Water	9056A	
310-34864-1 MSD	MW-62	Total/NA	Ground Water	9056A	
310-34864-2	MW-65	Total/NA	Ground Water	9056A	
LCS 310-54884/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-54884/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 54673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-34864-1	MW-62	Total/NA	Ground Water	3010A	
310-34864-1 MS	MW-62	Total/NA	Ground Water	3010A	
310-34864-1 MSD	MW-62	Total/NA	Ground Water	3010A	
310-34864-2	MW-65	Total/NA	Ground Water	3010A	
LCS 310-54673/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-54673/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 54808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-34864-1	MW-62	Total/NA	Ground Water	6010C	54673
310-34864-1 MS	MW-62	Total/NA	Ground Water	6010C	54673
310-34864-1 MSD	MW-62	Total/NA	Ground Water	6010C	54673
310-34864-2	MW-65	Total/NA	Ground Water	6010C	54673
LCS 310-54673/2-A	Lab Control Sample	Total/NA	Water	6010C	54673
MB 310-54673/1-A	Method Blank	Total/NA	Water	6010C	54673

General Chemistry

Analysis Batch: 54643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-34864-1	MW-62	Total/NA	Ground Water	SM 4500 NO2 B	
310-34864-1 MS	MW-62	Total/NA	Ground Water	SM 4500 NO2 B	
310-34864-1 MSD	MW-62	Total/NA	Ground Water	SM 4500 NO2 B	
310-34864-2	MW-65	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-54643/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-54643/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

General Chemistry (Continued)

Analysis Batch: 54646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-34864-1	MW-62	Total/NA	Ground Water	SM 4500 NO3 E	
310-34864-2	MW-65	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-54646/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-54646/4	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 54993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-34864-1	MW-62	Total/NA	Ground Water	9060A	
310-34864-1 MS	MW-62	Total/NA	Ground Water	9060A	
310-34864-1 MSD	MW-62	Total/NA	Ground Water	9060A	
310-34864-2	MW-65	Total/NA	Ground Water	9060A	
LCS 310-54993/20	Lab Control Sample	Total/NA	Water	9060A	
MB 310-54993/19	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Client Sample ID: MW-62

Lab Sample ID: 310-34864-1
Date Collected: 07/15/14 10:45
Matrix: Ground Water
Date Received: 07/16/14 09:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54497	07/16/14 12:24	SJN	TAL CF
Total/NA	Analysis	9056A		5	54884	07/18/14 12:22	CDD	TAL CF
Total/NA	Prep	3010A			54673	07/17/14 08:09	SAV	TAL CF
Total/NA	Analysis	6010C		1	54808	07/17/14 21:55	MRH	TAL CF
Total/NA	Analysis	9060A		1	54993	07/18/14 16:54	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54643	07/16/14 13:00	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54646	07/16/14 12:59	MDK	TAL CF

Client Sample ID: MW-65

Lab Sample ID: 310-34864-2
Date Collected: 07/15/14 16:00
Matrix: Ground Water
Date Received: 07/16/14 09:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54497	07/16/14 12:49	SJN	TAL CF
Total/NA	Analysis	9056A		5	54884	07/18/14 12:22	CDD	TAL CF
Total/NA	Prep	3010A			54673	07/17/14 08:09	SAV	TAL CF
Total/NA	Analysis	6010C		1	54808	07/17/14 22:04	MRH	TAL CF
Total/NA	Analysis	9060A		1	54993	07/18/14 17:43	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54643	07/16/14 13:00	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54646	07/16/14 13:47	MDK	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-34864-3
Date Collected: 07/15/14 00:00
Matrix: Water
Date Received: 07/16/14 09:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54497	07/16/14 11:58	SJN	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA	IHLAP		101044	11-01-14
Georgia	State Program	4	N/A	09-29-14
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14
Oregon	NELAP	10	IA100001	09-29-14
Wisconsin	State Program	5	999917270	08-31-14

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-34864-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Cedar Falls Facility

310-34864 Chain of Custody

Client: Golder Project: Electrolux

City: State:

Date: 7/16/14 Receiver's Initials: TD Time (Delivered): 9:44

Temperature Record:

Cooler ID# (If Applicable): 6

Uncorrected Temp: 0.8 °C

Corrected Temp: 0.9 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [x] IR "G" - 130195822
- [ ] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other:

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other:
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)*
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Your PO #: 103-87305
Send Report To: James Peace
Invoice To:
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Project Name: Electrolux - Jefferson, IA
Telephone Number: 603-668-0880 Fax: 603-668-1199
Project Number: 103-87305
Sampled by: (Print Name) Andrew J. Koff
(Signature)
Email Address: jpeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red & White Label)	Preservative: HCl (Blue & White Label)	Preservative: NaOH (Orange & White Label)	Preservative: H_2SO_4 Plastic (Yellow & White Labe	Preservative: H_2SO_4 Glass(Yellow & White Label)	Preservative: None (Black & White Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other Specify:Stormwater	Analyze For: 8260 Volatiles	Analyze For: Nitrate, Nitrite	Analyze For: Sulfate, Chloride	Analyze For: TOC	Analyze For: Iron, Manganese	E-mail results	Send QC with report
MW-62	7/15/14	1045	6	X			X	X	X		X		X		X						X	X	X	X	X	X	X
MW-65	7/15/14	1600	6	X			X	X	X		X		X		X						X	X	X	X	X	X	X
Trip Blank			3				X														X					X	X

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	7/15/14	1700						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
Melanie Pierce	7/16/14	944						

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-62	310-34864-B-1	Plastic 250ml - with Sulfuric Acid	<2		
MW-62	310-34864-C-1	Plastic 250ml - with Nitric Acid	<2		
MW-65	310-34864-B-2	Plastic 250ml - with Sulfuric Acid	<2		
MW-65	310-34864-C-2	Plastic 250ml - with Nitric Acid	<2		

mj 7/16/14

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-34864-1
SDG Number: 103-87305

Login Number: 34864
List Number: 1
Creator: Facciani, Melene K

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-35011-1
TestAmerica Sample Delivery Group: 103-8705
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
7/24/2014 11:16:12 AM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-35011-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-35011-1

Comments
No additional comments.

Receipt
The samples were received on 7/17/2014 9:12 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 54586 recovered above the upper control limit for Chlorethane (21.1 %D), Trichlorofluoromethane (29 %D), and Methyl tert-butyl ether (21.4 D). The LCS associated with this CCV passes using CCV criteria for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-54586/3).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 54969 recovered above the upper control limit for Carbon tetrachloride (22.8 %D), 1,2-Dichloroethane (27.3 %D), and 1,1,1-Trichloroethane (21.2 %D). The LCS associated with this CCV passes using CCV criteria for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-54969/3).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 54969 recovered above the upper control limit for Trichlorofluoromethane (29.1 %D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-54969/3).

Method(s) 8260C: The laboratory control sample (LCS) for batch 54969 recovered outside control limits for the following analytes: Dichlorodifluoromethane and Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 6010C: The following sampl was diluted due to the presence of interferents: MW-28 (310-35011-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method(s) 9056A: The following samples were diluted due to the nature of the sample matrix: MW-61 (310-35011-4), MW-63 (310-35011-5). Elevated reporting limits (RLs) are provided for chloride.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-35011-1	MW-8	Ground Water	07/16/14 11:30	07/17/14 09:12
310-35011-2	MW-15	Ground Water	07/16/14 16:45	07/17/14 09:12
310-35011-3	MW-28	Ground Water	07/16/14 16:10	07/17/14 09:12
310-35011-4	MW-61	Ground Water	07/16/14 13:35	07/17/14 09:12
310-35011-5	MW-63	Ground Water	07/16/14 08:40	07/17/14 09:12
310-35011-6	MW-64	Ground Water	07/16/14 10:00	07/17/14 09:12
310-35011-7	Dup-01	Ground Water	07/16/14 00:00	07/17/14 09:12
310-35011-8	Trip Blank	Water	07/16/14 00:00	07/17/14 09:12

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-8 — Lab Sample ID: 310-35011-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	59.1		5.00		mg/L	5		9056A	Total/NA
Chloride	116		5.00		mg/L	5		9056A	Total/NA
Manganese	0.0155		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	3.54		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 310-35011-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	11.0		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	59.0		1.00		ug/L	1		8260C	Total/NA
Sulfate	33.4		5.00		mg/L	5		9056A	Total/NA
Chloride	23.9		5.00		mg/L	5		9056A	Total/NA
Iron	0.196		0.100		mg/L	1		6010C	Total/NA
Manganese	0.0221		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	6.24		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	4.42		1.25		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-28 — Lab Sample ID: 310-35011-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	85500		100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	842		100		ug/L	100		8260C	Total/NA
Trichloroethene	31300		100		ug/L	100		8260C	Total/NA
Vinyl chloride	7620		100		ug/L	100		8260C	Total/NA
Sulfate	40.6		5.00		mg/L	5		9056A	Total/NA
Chloride	213		5.00		mg/L	5		9056A	Total/NA
Manganese	0.982		0.0500		mg/L	5		6010C	Total/NA
Total Organic Carbon	99.7		10.0		mg/L	10		9060A	Total/NA

Client Sample ID: MW-61 — Lab Sample ID: 310-35011-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	65.2		5.00		mg/L	5		9056A	Total/NA
Manganese	0.0400		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.98		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.251		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-63 — Lab Sample ID: 310-35011-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	158		5.00		mg/L	5		9056A	Total/NA
Iron	0.102		0.100		mg/L	1		6010C	Total/NA
Manganese	1.42		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.12		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-64 — Lab Sample ID: 310-35011-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	94.0		5.00		mg/L	5		9056A	Total/NA
Chloride	26.2		5.00		mg/L	5		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-64 (Continued) — Lab Sample ID: 310-35011-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.469		0.100		mg/L	1		6010C	Total/NA
Manganese	0.383		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.71		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: Dup-01 — Lab Sample ID: 310-35011-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	12.3		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	77.8		1.00		ug/L	1		8260C	Total/NA
Sulfate	34.0		5.00		mg/L	5		9056A	Total/NA
Chloride	23.8		5.00		mg/L	5		9056A	Total/NA
Iron	0.192		0.100		mg/L	1		6010C	Total/NA
Manganese	0.0160		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	6.16		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	4.20		1.25		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-35011-8

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-8

Date Collected: 07/16/14 11:30
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/18/14 13:32	1
Benzene	<0.500		0.500		ug/L			07/18/14 13:32	1
Bromobenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
Bromochloromethane	<5.00		5.00		ug/L			07/18/14 13:32	1
Bromodichloromethane	<1.00		1.00		ug/L			07/18/14 13:32	1
Bromoform	<5.00		5.00		ug/L			07/18/14 13:32	1
Bromomethane	<4.00		4.00		ug/L			07/18/14 13:32	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/14 13:32	1
n-Butylbenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
Carbon disulfide	<1.00		1.00		ug/L			07/18/14 13:32	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/18/14 13:32	1
Chlorobenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/18/14 13:32	1
Chloroethane	<4.00		4.00		ug/L			07/18/14 13:32	1
Chloroform	<1.00		1.00		ug/L			07/18/14 13:32	1
Chloromethane	<3.00		3.00		ug/L			07/18/14 13:32	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 13:32	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 13:32	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/18/14 13:32	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/18/14 13:32	1
Dibromomethane	<1.00		1.00		ug/L			07/18/14 13:32	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/18/14 13:32	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/18/14 13:32	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/18/14 13:32	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/18/14 13:32	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 13:32	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 13:32	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/18/14 13:32	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/18/14 13:32	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/18/14 13:32	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/18/14 13:32	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 13:32	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 13:32	1
Ethylbenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/18/14 13:32	1
Hexane	<1.00		1.00		ug/L			07/18/14 13:32	1
Isopropylbenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/18/14 13:32	1
Methylene Chloride	<5.00		5.00		ug/L			07/18/14 13:32	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/18/14 13:32	1
Naphthalene	<5.00		5.00		ug/L			07/18/14 13:32	1
N-Propylbenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
Styrene	<1.00		1.00		ug/L			07/18/14 13:32	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 13:32	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-8

Date Collected: 07/16/14 11:30
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 13:32	1
Tetrachloroethene	<1.00		1.00		ug/L			07/18/14 13:32	1
Toluene	<1.00		1.00		ug/L			07/18/14 13:32	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 13:32	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 13:32	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/18/14 13:32	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/18/14 13:32	1
Trichloroethene	<1.00		1.00		ug/L			07/18/14 13:32	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/18/14 13:32	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/18/14 13:32	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 13:32	1
Vinyl chloride	<1.00		1.00		ug/L			07/18/14 13:32	1
Xylenes, Total	<3.00		3.00		ug/L			07/18/14 13:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/18/14 13:32*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 120*		*07/18/14 13:32*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*07/18/14 13:32*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**59.1**		5.00		mg/L			07/18/14 12:22	5
Chloride	**116**		5.00		mg/L			07/18/14 12:22	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/18/14 08:16	07/21/14 15:12	1
Manganese	**0.0155**		0.0100		mg/L		07/18/14 08:16	07/18/14 20:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.54**		1.00		mg/L			07/18/14 19:52	1
Nitrite as N	<0.100		0.100		mg/L			07/17/14 15:15	1
Nitrate as N	<0.100		0.100		mg/L			07/17/14 15:30	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-15

Date Collected: 07/16/14 16:45
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/18/14 13:58	1
Benzene	<0.500		0.500		ug/L			07/18/14 13:58	1
Bromobenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
Bromochloromethane	<5.00		5.00		ug/L			07/18/14 13:58	1
Bromodichloromethane	<1.00		1.00		ug/L			07/18/14 13:58	1
Bromoform	<5.00		5.00		ug/L			07/18/14 13:58	1
Bromomethane	<4.00		4.00		ug/L			07/18/14 13:58	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/14 13:58	1
n-Butylbenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
Carbon disulfide	<1.00		1.00		ug/L			07/18/14 13:58	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/18/14 13:58	1
Chlorobenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/18/14 13:58	1
Chloroethane	<4.00		4.00		ug/L			07/18/14 13:58	1
Chloroform	<1.00		1.00		ug/L			07/18/14 13:58	1
Chloromethane	<3.00		3.00		ug/L			07/18/14 13:58	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 13:58	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 13:58	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/18/14 13:58	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/18/14 13:58	1
Dibromomethane	<1.00		1.00		ug/L			07/18/14 13:58	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/18/14 13:58	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/18/14 13:58	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/18/14 13:58	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/18/14 13:58	1
cis-1,2-Dichloroethene	**11.0**		1.00		ug/L			07/18/14 13:58	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 13:58	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/18/14 13:58	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/18/14 13:58	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/18/14 13:58	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/18/14 13:58	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 13:58	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 13:58	1
Ethylbenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/18/14 13:58	1
Hexane	<1.00		1.00		ug/L			07/18/14 13:58	1
Isopropylbenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/18/14 13:58	1
Methylene Chloride	<5.00		5.00		ug/L			07/18/14 13:58	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/18/14 13:58	1
Naphthalene	<5.00		5.00		ug/L			07/18/14 13:58	1
N-Propylbenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
Styrene	<1.00		1.00		ug/L			07/18/14 13:58	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 13:58	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-15

Date Collected: 07/16/14 16:45
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 13:58	1
Tetrachloroethene	<1.00		1.00		ug/L			07/18/14 13:58	1
Toluene	<1.00		1.00		ug/L			07/18/14 13:58	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 13:58	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 13:58	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/18/14 13:58	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/18/14 13:58	1
Trichloroethene	**59.0**		1.00		ug/L			07/18/14 13:58	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/18/14 13:58	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/18/14 13:58	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 13:58	1
Vinyl chloride	<1.00		1.00		ug/L			07/18/14 13:58	1
Xylenes, Total	<3.00		3.00		ug/L			07/18/14 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*07/18/14 13:58*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*07/18/14 13:58*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*07/18/14 13:58*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**33.4**		5.00		mg/L			07/18/14 12:22	5
Chloride	**23.9**		5.00		mg/L			07/18/14 12:22	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.196**		0.100		mg/L		07/18/14 08:16	07/21/14 15:14	1
Manganese	**0.0221**		0.0100		mg/L		07/18/14 08:16	07/18/14 20:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**6.24**		1.00		mg/L			07/18/14 20:09	1
Nitrite as N	<0.100		0.100		mg/L			07/17/14 15:15	1
Nitrate as N	**4.42**		1.25		mg/L			07/17/14 15:37	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-28

Date Collected: 07/16/14 16:10
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			07/18/14 14:22	100
Benzene	<50.0		50.0		ug/L			07/18/14 14:22	100
Bromobenzene	<100		100		ug/L			07/18/14 14:22	100
Bromochloromethane	<500		500		ug/L			07/18/14 14:22	100
Bromodichloromethane	<100		100		ug/L			07/18/14 14:22	100
Bromoform	<500		500		ug/L			07/18/14 14:22	100
Bromomethane	<400		400		ug/L			07/18/14 14:22	100
2-Butanone (MEK)	<1000		1000		ug/L			07/18/14 14:22	100
n-Butylbenzene	<100		100		ug/L			07/18/14 14:22	100
sec-Butylbenzene	<100		100		ug/L			07/18/14 14:22	100
tert-Butylbenzene	<100		100		ug/L			07/18/14 14:22	100
Carbon disulfide	<100		100		ug/L			07/18/14 14:22	100
Carbon tetrachloride	<200		200		ug/L			07/18/14 14:22	100
Chlorobenzene	<100		100		ug/L			07/18/14 14:22	100
Chlorodibromomethane	<500		500		ug/L			07/18/14 14:22	100
Chloroethane	<400		400		ug/L			07/18/14 14:22	100
Chloroform	<100		100		ug/L			07/18/14 14:22	100
Chloromethane	<300		300		ug/L			07/18/14 14:22	100
2-Chlorotoluene	<100		100		ug/L			07/18/14 14:22	100
4-Chlorotoluene	<100		100		ug/L			07/18/14 14:22	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			07/18/14 14:22	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			07/18/14 14:22	100
Dibromomethane	<100		100		ug/L			07/18/14 14:22	100
1,2-Dichlorobenzene	<100		100		ug/L			07/18/14 14:22	100
1,3-Dichlorobenzene	<100		100		ug/L			07/18/14 14:22	100
1,4-Dichlorobenzene	<100		100		ug/L			07/18/14 14:22	100
Dichlorodifluoromethane	<300		300		ug/L			07/18/14 14:22	100
1,1-Dichloroethane	<100		100		ug/L			07/18/14 14:22	100
1,2-Dichloroethane	<100		100		ug/L			07/18/14 14:22	100
1,1-Dichloroethene	<200		200		ug/L			07/18/14 14:22	100
cis-1,2-Dichloroethene	**85500**		100		ug/L			07/18/14 14:22	100
trans-1,2-Dichloroethene	**842**		100		ug/L			07/18/14 14:22	100
1,2-Dichloropropane	<100		100		ug/L			07/18/14 14:22	100
1,3-Dichloropropane	<100		100		ug/L			07/18/14 14:22	100
2,2-Dichloropropane	<400		400		ug/L			07/18/14 14:22	100
1,1-Dichloropropene	<100		100		ug/L			07/18/14 14:22	100
cis-1,3-Dichloropropene	<500		500		ug/L			07/18/14 14:22	100
trans-1,3-Dichloropropene	<500		500		ug/L			07/18/14 14:22	100
Ethylbenzene	<100		100		ug/L			07/18/14 14:22	100
Hexachlorobutadiene	<500		500		ug/L			07/18/14 14:22	100
Hexane	<100		100		ug/L			07/18/14 14:22	100
Isopropylbenzene	<100		100		ug/L			07/18/14 14:22	100
p-Isopropyltoluene	<100		100		ug/L			07/18/14 14:22	100
Methylene Chloride	<500		500		ug/L			07/18/14 14:22	100
Methyl tert-butyl ether	<100		100		ug/L			07/18/14 14:22	100
Naphthalene	<500		500		ug/L			07/18/14 14:22	100
N-Propylbenzene	<100		100		ug/L			07/18/14 14:22	100
Styrene	<100		100		ug/L			07/18/14 14:22	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			07/18/14 14:22	100

Client Sample ID: MW-28

Date Collected: 07/16/14 16:10
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			07/18/14 14:22	100
Tetrachloroethene	<100		100		ug/L			07/18/14 14:22	100
Toluene	<100		100		ug/L			07/18/14 14:22	100
1,2,3-Trichlorobenzene	<500		500		ug/L			07/18/14 14:22	100
1,2,4-Trichlorobenzene	<500		500		ug/L			07/18/14 14:22	100
1,1,1-Trichloroethane	<100		100		ug/L			07/18/14 14:22	100
1,1,2-Trichloroethane	<100		100		ug/L			07/18/14 14:22	100
Trichloroethene	**31300**		100		ug/L			07/18/14 14:22	100
Trichlorofluoromethane	<400		400		ug/L			07/18/14 14:22	100
1,2,3-Trichloropropane	<100		100		ug/L			07/18/14 14:22	100
1,2,4-Trimethylbenzene	<100		100		ug/L			07/18/14 14:22	100
1,3,5-Trimethylbenzene	<100		100		ug/L			07/18/14 14:22	100
Vinyl chloride	**7620**		100		ug/L			07/18/14 14:22	100
Xylenes, Total	<300		300		ug/L			07/18/14 14:22	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*07/18/14 14:22*	*100*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*07/18/14 14:22*	*100*
Toluene-d8 (Surr)	*110*		*80 - 120*		*07/18/14 14:22*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**40.6**		5.00		mg/L			07/18/14 12:22	5
Chloride	**213**		5.00		mg/L			07/18/14 12:22	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500		mg/L		07/18/14 08:16	07/21/14 15:16	5
Manganese	**0.982**		0.0500		mg/L		07/18/14 08:16	07/21/14 15:16	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**99.7**		10.0		mg/L			07/22/14 14:13	10
Nitrite as N	<0.100		0.100		mg/L			07/17/14 15:15	1
Nitrate as N	<0.100		0.100		mg/L			07/17/14 15:39	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-61

Date Collected: 07/16/14 13:35
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/18/14 14:48	1
Benzene	<0.500		0.500		ug/L			07/18/14 14:48	1
Bromobenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
Bromochloromethane	<5.00		5.00		ug/L			07/18/14 14:48	1
Bromodichloromethane	<1.00		1.00		ug/L			07/18/14 14:48	1
Bromoform	<5.00		5.00		ug/L			07/18/14 14:48	1
Bromomethane	<4.00		4.00		ug/L			07/18/14 14:48	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/14 14:48	1
n-Butylbenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
Carbon disulfide	<1.00		1.00		ug/L			07/18/14 14:48	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/18/14 14:48	1
Chlorobenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/18/14 14:48	1
Chloroethane	<4.00		4.00		ug/L			07/18/14 14:48	1
Chloroform	<1.00		1.00		ug/L			07/18/14 14:48	1
Chloromethane	<3.00		3.00		ug/L			07/18/14 14:48	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 14:48	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 14:48	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/18/14 14:48	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/18/14 14:48	1
Dibromomethane	<1.00		1.00		ug/L			07/18/14 14:48	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/18/14 14:48	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/18/14 14:48	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/18/14 14:48	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/18/14 14:48	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 14:48	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 14:48	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/18/14 14:48	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/18/14 14:48	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/18/14 14:48	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/18/14 14:48	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 14:48	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 14:48	1
Ethylbenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/18/14 14:48	1
Hexane	<1.00		1.00		ug/L			07/18/14 14:48	1
Isopropylbenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/18/14 14:48	1
Methylene Chloride	<5.00		5.00		ug/L			07/18/14 14:48	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/18/14 14:48	1
Naphthalene	<5.00		5.00		ug/L			07/18/14 14:48	1
N-Propylbenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
Styrene	<1.00		1.00		ug/L			07/18/14 14:48	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 14:48	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-61

Date Collected: 07/16/14 13:35
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 14:48	1
Tetrachloroethene	<1.00		1.00		ug/L			07/18/14 14:48	1
Toluene	<1.00		1.00		ug/L			07/18/14 14:48	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 14:48	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 14:48	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/18/14 14:48	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/18/14 14:48	1
Trichloroethene	<1.00		1.00		ug/L			07/18/14 14:48	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/18/14 14:48	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/18/14 14:48	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 14:48	1
Vinyl chloride	<1.00		1.00		ug/L			07/18/14 14:48	1
Xylenes, Total	<3.00		3.00		ug/L			07/18/14 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*		*07/18/14 14:48*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*07/18/14 14:48*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*07/18/14 14:48*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**65.2**		5.00		mg/L			07/18/14 12:22	5
Chloride	<5.00		5.00		mg/L			07/18/14 12:22	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/18/14 08:16	07/21/14 15:18	1
Manganese	**0.0400**		0.0100		mg/L		07/18/14 08:16	07/18/14 20:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.98**		1.00		mg/L			07/18/14 20:42	1
Nitrite as N	<0.100		0.100		mg/L			07/17/14 15:15	1
Nitrate as N	**0.251**		0.100		mg/L			07/17/14 15:11	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-63

Lab Sample ID: 310-35011-5

Date Collected: 07/16/14 08:40
Date Received: 07/17/14 09:12

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/18/14 15:12	1
Benzene	<0.500		0.500		ug/L			07/18/14 15:12	1
Bromobenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
Bromochloromethane	<5.00		5.00		ug/L			07/18/14 15:12	1
Bromodichloromethane	<1.00		1.00		ug/L			07/18/14 15:12	1
Bromoform	<5.00		5.00		ug/L			07/18/14 15:12	1
Bromomethane	<4.00		4.00		ug/L			07/18/14 15:12	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/14 15:12	1
n-Butylbenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
Carbon disulfide	<1.00		1.00		ug/L			07/18/14 15:12	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/18/14 15:12	1
Chlorobenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/18/14 15:12	1
Chloroethane	<4.00		4.00		ug/L			07/18/14 15:12	1
Chloroform	<1.00		1.00		ug/L			07/18/14 15:12	1
Chloromethane	<3.00		3.00		ug/L			07/18/14 15:12	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 15:12	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 15:12	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/18/14 15:12	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/18/14 15:12	1
Dibromomethane	<1.00		1.00		ug/L			07/18/14 15:12	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/18/14 15:12	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/18/14 15:12	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/18/14 15:12	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/18/14 15:12	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 15:12	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 15:12	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/18/14 15:12	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/18/14 15:12	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/18/14 15:12	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/18/14 15:12	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 15:12	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 15:12	1
Ethylbenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/18/14 15:12	1
Hexane	<1.00		1.00		ug/L			07/18/14 15:12	1
Isopropylbenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/18/14 15:12	1
Methylene Chloride	<5.00		5.00		ug/L			07/18/14 15:12	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/18/14 15:12	1
Naphthalene	<5.00		5.00		ug/L			07/18/14 15:12	1
N-Propylbenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
Styrene	<1.00		1.00		ug/L			07/18/14 15:12	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 15:12	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-63

Date Collected: 07/16/14 08:40
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 15:12	1
Tetrachloroethene	<1.00		1.00		ug/L			07/18/14 15:12	1
Toluene	<1.00		1.00		ug/L			07/18/14 15:12	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 15:12	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 15:12	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/18/14 15:12	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/18/14 15:12	1
Trichloroethene	<1.00		1.00		ug/L			07/18/14 15:12	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/18/14 15:12	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/18/14 15:12	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 15:12	1
Vinyl chloride	<1.00		1.00		ug/L			07/18/14 15:12	1
Xylenes, Total	<3.00		3.00		ug/L			07/18/14 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*		*07/18/14 15:12*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 120*		*07/18/14 15:12*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*07/18/14 15:12*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**158**		5.00		mg/L			07/18/14 12:22	5
Chloride	<5.00		5.00		mg/L			07/18/14 12:22	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.102**		0.100		mg/L		07/18/14 08:16	07/21/14 15:22	1
Manganese	**1.42**		0.0100		mg/L		07/18/14 08:16	07/18/14 21:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.12**		1.00		mg/L			07/18/14 20:56	1
Nitrite as N	<0.100		0.100		mg/L			07/17/14 15:15	1
Nitrate as N	<0.100		0.100		mg/L			07/17/14 15:44	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-64

Lab Sample ID: 310-35011-6

Date Collected: 07/16/14 10:00
Date Received: 07/17/14 09:12

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/18/14 15:37	1
Benzene	<0.500		0.500		ug/L			07/18/14 15:37	1
Bromobenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
Bromochloromethane	<5.00		5.00		ug/L			07/18/14 15:37	1
Bromodichloromethane	<1.00		1.00		ug/L			07/18/14 15:37	1
Bromoform	<5.00		5.00		ug/L			07/18/14 15:37	1
Bromomethane	<4.00		4.00		ug/L			07/18/14 15:37	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/14 15:37	1
n-Butylbenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
Carbon disulfide	<1.00		1.00		ug/L			07/18/14 15:37	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/18/14 15:37	1
Chlorobenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/18/14 15:37	1
Chloroethane	<4.00		4.00		ug/L			07/18/14 15:37	1
Chloroform	<1.00		1.00		ug/L			07/18/14 15:37	1
Chloromethane	<3.00		3.00		ug/L			07/18/14 15:37	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 15:37	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 15:37	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/18/14 15:37	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/18/14 15:37	1
Dibromomethane	<1.00		1.00		ug/L			07/18/14 15:37	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/18/14 15:37	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/18/14 15:37	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/18/14 15:37	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/18/14 15:37	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 15:37	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 15:37	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/18/14 15:37	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/18/14 15:37	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/18/14 15:37	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/18/14 15:37	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 15:37	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 15:37	1
Ethylbenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/18/14 15:37	1
Hexane	<1.00		1.00		ug/L			07/18/14 15:37	1
Isopropylbenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/18/14 15:37	1
Methylene Chloride	<5.00		5.00		ug/L			07/18/14 15:37	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/18/14 15:37	1
Naphthalene	<5.00		5.00		ug/L			07/18/14 15:37	1
N-Propylbenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
Styrene	<1.00		1.00		ug/L			07/18/14 15:37	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 15:37	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-64

Date Collected: 07/16/14 10:00
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-6

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 15:37	1
Tetrachloroethene	<1.00		1.00		ug/L			07/18/14 15:37	1
Toluene	<1.00		1.00		ug/L			07/18/14 15:37	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 15:37	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 15:37	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/18/14 15:37	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/18/14 15:37	1
Trichloroethene	<1.00		1.00		ug/L			07/18/14 15:37	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/18/14 15:37	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/18/14 15:37	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 15:37	1
Vinyl chloride	<1.00		1.00		ug/L			07/18/14 15:37	1
Xylenes, Total	<3.00		3.00		ug/L			07/18/14 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*75 - 120*		*07/18/14 15:37*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 120*		*07/18/14 15:37*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*07/18/14 15:37*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**94.0**		5.00		mg/L			07/18/14 12:22	5
Chloride	**26.2**		5.00		mg/L			07/18/14 12:22	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.469**		0.100		mg/L		07/18/14 08:16	07/21/14 15:30	1
Manganese	**0.383**		0.0100		mg/L		07/18/14 08:16	07/18/14 21:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.71**		1.00		mg/L			07/18/14 21:10	1
Nitrite as N	<0.100		0.100		mg/L			07/17/14 15:15	1
Nitrate as N	<0.100		0.100		mg/L			07/17/14 15:46	1

Client Sample ID: Dup-01

Date Collected: 07/16/14 00:00
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-7

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/21/14 09:11	1
Benzene	<0.500		0.500		ug/L			07/21/14 09:11	1
Bromobenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
Bromochloromethane	<5.00		5.00		ug/L			07/21/14 09:11	1
Bromodichloromethane	<1.00		1.00		ug/L			07/21/14 09:11	1
Bromoform	<5.00		5.00		ug/L			07/21/14 09:11	1
Bromomethane	<4.00		4.00		ug/L			07/21/14 09:11	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/21/14 09:11	1
n-Butylbenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
Carbon disulfide	<1.00		1.00		ug/L			07/21/14 09:11	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/21/14 09:11	1
Chlorobenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/21/14 09:11	1
Chloroethane	<4.00		4.00		ug/L			07/21/14 09:11	1
Chloroform	<1.00		1.00		ug/L			07/21/14 09:11	1
Chloromethane	<3.00		3.00		ug/L			07/21/14 09:11	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 09:11	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 09:11	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/21/14 09:11	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/21/14 09:11	1
Dibromomethane	<1.00		1.00		ug/L			07/21/14 09:11	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
Dichlorodifluoromethane	<3.00	*	3.00		ug/L			07/21/14 09:11	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/21/14 09:11	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/21/14 09:11	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/21/14 09:11	1
cis-1,2-Dichloroethene	**12.3**		1.00		ug/L			07/21/14 09:11	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 09:11	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/21/14 09:11	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/21/14 09:11	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/21/14 09:11	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/21/14 09:11	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 09:11	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 09:11	1
Ethylbenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/21/14 09:11	1
Hexane	<1.00		1.00		ug/L			07/21/14 09:11	1
Isopropylbenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/21/14 09:11	1
Methylene Chloride	<5.00		5.00		ug/L			07/21/14 09:11	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/21/14 09:11	1
Naphthalene	<5.00		5.00		ug/L			07/21/14 09:11	1
N-Propylbenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
Styrene	<1.00		1.00		ug/L			07/21/14 09:11	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 09:11	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: Dup-01

Date Collected: 07/16/14 00:00
Date Received: 07/17/14 09:12

Lab Sample ID: 310-35011-7

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 09:11	1
Tetrachloroethene	<1.00		1.00		ug/L			07/21/14 09:11	1
Toluene	<1.00		1.00		ug/L			07/21/14 09:11	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 09:11	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 09:11	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/21/14 09:11	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/21/14 09:11	1
Trichloroethene	**77.8**		1.00		ug/L			07/21/14 09:11	1
Trichlorofluoromethane	<4.00	*	4.00		ug/L			07/21/14 09:11	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/21/14 09:11	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 09:11	1
Vinyl chloride	<1.00		1.00		ug/L			07/21/14 09:11	1
Xylenes, Total	<3.00		3.00		ug/L			07/21/14 09:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*		*07/21/14 09:11*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 120*		*07/21/14 09:11*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*07/21/14 09:11*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**34.0**		5.00		mg/L			07/18/14 12:22	5
Chloride	**23.8**		5.00		mg/L			07/18/14 12:22	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.192**		0.100		mg/L		07/18/14 08:16	07/21/14 15:32	1
Manganese	**0.0160**		0.0100		mg/L		07/18/14 08:16	07/18/14 21:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**6.16**		1.00		mg/L			07/18/14 21:25	1
Nitrite as N	<0.100		0.100		mg/L			07/17/14 15:15	1
Nitrate as N	**4.20**		1.25		mg/L			07/17/14 15:49	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: Trip Blank

Lab Sample ID: 310-35011-8

Date Collected: 07/16/14 00:00
Matrix: Water
Date Received: 07/17/14 09:12

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/18/14 11:27	1
Benzene	<0.500		0.500		ug/L			07/18/14 11:27	1
Bromobenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
Bromochloromethane	<5.00		5.00		ug/L			07/18/14 11:27	1
Bromodichloromethane	<1.00		1.00		ug/L			07/18/14 11:27	1
Bromoform	<5.00		5.00		ug/L			07/18/14 11:27	1
Bromomethane	<4.00		4.00		ug/L			07/18/14 11:27	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/14 11:27	1
n-Butylbenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
Carbon disulfide	<1.00		1.00		ug/L			07/18/14 11:27	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/18/14 11:27	1
Chlorobenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/18/14 11:27	1
Chloroethane	<4.00		4.00		ug/L			07/18/14 11:27	1
Chloroform	<1.00		1.00		ug/L			07/18/14 11:27	1
Chloromethane	<3.00		3.00		ug/L			07/18/14 11:27	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 11:27	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 11:27	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/18/14 11:27	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/18/14 11:27	1
Dibromomethane	<1.00		1.00		ug/L			07/18/14 11:27	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/18/14 11:27	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/18/14 11:27	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/18/14 11:27	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/18/14 11:27	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 11:27	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 11:27	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/18/14 11:27	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/18/14 11:27	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/18/14 11:27	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/18/14 11:27	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 11:27	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 11:27	1
Ethylbenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/18/14 11:27	1
Hexane	<1.00		1.00		ug/L			07/18/14 11:27	1
Isopropylbenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/18/14 11:27	1
Methylene Chloride	<5.00		5.00		ug/L			07/18/14 11:27	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/18/14 11:27	1
Naphthalene	<5.00		5.00		ug/L			07/18/14 11:27	1
N-Propylbenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
Styrene	<1.00		1.00		ug/L			07/18/14 11:27	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 11:27	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: Trip Blank

Lab Sample ID: 310-35011-8

Date Collected: 07/16/14 00:00
Matrix: Water
Date Received: 07/17/14 09:12

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 11:27	1
Tetrachloroethene	<1.00		1.00		ug/L			07/18/14 11:27	1
Toluene	<1.00		1.00		ug/L			07/18/14 11:27	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 11:27	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 11:27	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/18/14 11:27	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/18/14 11:27	1
Trichloroethene	<1.00		1.00		ug/L			07/18/14 11:27	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/18/14 11:27	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/18/14 11:27	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 11:27	1
Vinyl chloride	<1.00		1.00		ug/L			07/18/14 11:27	1
Xylenes, Total	<3.00		3.00		ug/L			07/18/14 11:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*		*07/18/14 11:27*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 120*		*07/18/14 11:27*	*1*
Toluene-d8 (Surr)	*114*		*80 - 120*		*07/18/14 11:27*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
*	LCS or LCSD exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-35011-1	MW-8	103	98	107
310-35011-1 MS	MW-8	99	102	110
310-35011-1 MSD	MW-8	104	115	107
310-35011-2	MW-15	100	101	108
310-35011-3	MW-28	99	99	110
310-35011-4	MW-61	102	107	108
310-35011-5	MW-63	102	104	104
310-35011-6	MW-64	105	104	107
310-35011-7	Dup-01	96	112	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-35011-8	Trip Blank	101	104	114
LCS 310-54586/4	Lab Control Sample	103	101	111
LCS 310-54969/4	Lab Control Sample	98	115	95
MB 310-54586/7	Method Blank	96	103	107
MB 310-54969/7	Method Blank	103	115	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-54586/7
Matrix: Water
Analysis Batch: 54586

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/18/14 11:02	1
Benzene	<0.500		0.500		ug/L			07/18/14 11:02	1
Bromobenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
Bromochloromethane	<5.00		5.00		ug/L			07/18/14 11:02	1
Bromodichloromethane	<1.00		1.00		ug/L			07/18/14 11:02	1
Bromoform	<5.00		5.00		ug/L			07/18/14 11:02	1
Bromomethane	<4.00		4.00		ug/L			07/18/14 11:02	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/14 11:02	1
n-Butylbenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
Carbon disulfide	<1.00		1.00		ug/L			07/18/14 11:02	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/18/14 11:02	1
Chlorobenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/18/14 11:02	1
Chloroethane	<4.00		4.00		ug/L			07/18/14 11:02	1
Chloroform	<1.00		1.00		ug/L			07/18/14 11:02	1
Chloromethane	<3.00		3.00		ug/L			07/18/14 11:02	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 11:02	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 11:02	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/18/14 11:02	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/18/14 11:02	1
Dibromomethane	<1.00		1.00		ug/L			07/18/14 11:02	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/18/14 11:02	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/18/14 11:02	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/18/14 11:02	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/18/14 11:02	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 11:02	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 11:02	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/18/14 11:02	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/18/14 11:02	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/18/14 11:02	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/18/14 11:02	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 11:02	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 11:02	1
Ethylbenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/18/14 11:02	1
Hexane	<1.00		1.00		ug/L			07/18/14 11:02	1
Isopropylbenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/18/14 11:02	1
Methylene Chloride	<5.00		5.00		ug/L			07/18/14 11:02	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/18/14 11:02	1
Naphthalene	<5.00		5.00		ug/L			07/18/14 11:02	1
N-Propylbenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
Styrene	<1.00		1.00		ug/L			07/18/14 11:02	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-54586/7
Matrix: Water
Analysis Batch: 54586

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 11:02	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 11:02	1
Tetrachloroethene	<1.00		1.00		ug/L			07/18/14 11:02	1
Toluene	<1.00		1.00		ug/L			07/18/14 11:02	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 11:02	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 11:02	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/18/14 11:02	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/18/14 11:02	1
Trichloroethene	<1.00		1.00		ug/L			07/18/14 11:02	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/18/14 11:02	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/18/14 11:02	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 11:02	1
Vinyl chloride	<1.00		1.00		ug/L			07/18/14 11:02	1
Xylenes, Total	<3.00		3.00		ug/L			07/18/14 11:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*		*07/18/14 11:02*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*07/18/14 11:02*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*07/18/14 11:02*	*1*

Lab Sample ID: LCS 310-54586/4
Matrix: Water
Analysis Batch: 54586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	50.0	43.90		ug/L		88	60 - 150
Benzene	25.0	20.59		ug/L		82	70 - 130
Bromobenzene	25.0	25.73		ug/L		103	75 - 130
Bromochloromethane	25.0	22.56		ug/L		90	65 - 145
Bromodichloromethane	25.0	22.16		ug/L		89	60 - 130
Bromoform	25.0	27.06		ug/L		108	30 - 125
Bromomethane	25.0	21.63		ug/L		87	35 - 130
2-Butanone (MEK)	50.0	49.77		ug/L		100	55 - 140
n-Butylbenzene	25.0	25.52		ug/L		102	55 - 135
sec-Butylbenzene	25.0	24.78		ug/L		99	65 - 135
tert-Butylbenzene	25.0	24.49		ug/L		98	60 - 135
Carbon disulfide	25.0	19.29		ug/L		77	40 - 130
Carbon tetrachloride	25.0	21.64		ug/L		87	55 - 130
Chlorobenzene	25.0	25.19		ug/L		101	75 - 125
Chlorodibromomethane	25.0	21.06		ug/L		84	45 - 125
Chloroethane	25.0	21.40		ug/L		86	55 - 135
Chloroform	25.0	20.81		ug/L		83	70 - 125
Chloromethane	25.0	13.01		ug/L		52	30 - 125
2-Chlorotoluene	25.0	24.47		ug/L		98	75 - 135
4-Chlorotoluene	25.0	25.08		ug/L		100	70 - 140
1,2-Dibromo-3-Chloropropane	25.0	28.75		ug/L		115	35 - 130
1,2-Dibromoethane (EDB)	25.0	21.97		ug/L		88	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-54586/4
Matrix: Water
Analysis Batch: 54586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	25.0	22.55		ug/L		90	75 - 130
1,2-Dichlorobenzene	25.0	26.80		ug/L		107	65 - 135
1,3-Dichlorobenzene	25.0	25.69		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	26.26		ug/L		105	60 - 140
Dichlorodifluoromethane	25.0	16.34		ug/L		65	35 - 130
1,1-Dichloroethane	25.0	21.48		ug/L		86	60 - 130
1,2-Dichloroethane	25.0	24.16		ug/L		97	65 - 140
1,1-Dichloroethene	25.0	20.56		ug/L		82	60 - 135
cis-1,2-Dichloroethene	25.0	19.93		ug/L		80	70 - 135
trans-1,2-Dichloroethene	25.0	21.88		ug/L		88	60 - 145
1,2-Dichloropropane	25.0	20.76		ug/L		83	65 - 130
1,3-Dichloropropane	25.0	21.68		ug/L		87	75 - 125
2,2-Dichloropropane	25.0	22.71		ug/L		91	25 - 120
1,1-Dichloropropene	25.0	20.91		ug/L		84	60 - 140
cis-1,3-Dichloropropene	25.0	21.46		ug/L		86	30 - 120
trans-1,3-Dichloropropene	25.0	21.85		ug/L		87	35 - 120
Ethylbenzene	25.0	24.52		ug/L		98	70 - 130
Hexachlorobutadiene	25.0	22.63		ug/L		91	60 - 135
Hexane	25.0	20.17		ug/L		81	40 - 135
Isopropylbenzene	25.0	24.77		ug/L		99	70 - 125
p-Isopropyltoluene	25.0	25.96		ug/L		104	60 - 140
Methylene Chloride	25.0	20.80		ug/L		83	55 - 145
Methyl tert-butyl ether	25.0	25.07		ug/L		100	50 - 135
Naphthalene	25.0	22.25		ug/L		89	40 - 135
N-Propylbenzene	25.0	24.81		ug/L		99	70 - 135
Styrene	25.0	25.18		ug/L		101	70 - 130
1,1,1,2-Tetrachloroethane	25.0	26.36		ug/L		105	65 - 120
1,1,2,2-Tetrachloroethane	25.0	24.72		ug/L		99	65 - 130
Tetrachloroethene	25.0	20.00		ug/L		80	70 - 135
Toluene	25.0	19.80		ug/L		79	70 - 135
1,2,3-Trichlorobenzene	25.0	23.52		ug/L		94	55 - 130
1,2,4-Trichlorobenzene	25.0	22.87		ug/L		91	40 - 135
1,1,1-Trichloroethane	25.0	23.04		ug/L		92	60 - 125
1,1,2-Trichloroethane	25.0	20.76		ug/L		83	75 - 125
Trichloroethene	25.0	20.77		ug/L		83	70 - 130
Trichlorofluoromethane	25.0	22.38		ug/L		90	55 - 145
1,2,3-Trichloropropane	25.0	27.93		ug/L		112	60 - 150
1,2,4-Trimethylbenzene	25.0	24.98		ug/L		100	70 - 140
1,3,5-Trimethylbenzene	25.0	25.66		ug/L		103	70 - 140
Vinyl chloride	25.0	16.42		ug/L		66	45 - 135
Xylenes, Total	50.0	49.19		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 120*
Toluene-d8 (Surr)	*111*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-35011-1 MS
Matrix: Ground Water
Analysis Batch: 54586

Client Sample ID: MW-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<10.0		40.0	35.33		ug/L		82	45 - 150
Benzene	<0.500		20.0	14.25		ug/L		71	50 - 130
Bromobenzene	<1.00		20.0	17.85		ug/L		89	60 - 135
Bromochloromethane	<5.00		20.0	15.77		ug/L		79	55 - 145
Bromodichloromethane	<1.00		20.0	16.40		ug/L		82	50 - 130
Bromoform	<5.00		20.0	18.20		ug/L		91	30 - 125
Bromomethane	<4.00		20.0	17.35		ug/L		87	30 - 130
2-Butanone (MEK)	<10.0		40.0	29.01		ug/L		73	45 - 140
n-Butylbenzene	<1.00		20.0	16.40		ug/L		82	40 - 135
sec-Butylbenzene	<1.00		20.0	15.66		ug/L		78	40 - 135
tert-Butylbenzene	<1.00		20.0	16.46		ug/L		82	40 - 135
Carbon disulfide	<1.00		20.0	16.18		ug/L		81	30 - 130
Carbon tetrachloride	<2.00		20.0	14.63		ug/L		73	35 - 130
Chlorobenzene	<1.00		20.0	16.81		ug/L		84	60 - 130
Chlorodibromomethane	<5.00		20.0	14.58		ug/L		73	35 - 130
Chloroethane	<4.00		20.0	20.20		ug/L		101	40 - 135
Chloroform	<1.00		20.0	15.53		ug/L		78	55 - 125
Chloromethane	<3.00		20.0	12.58		ug/L		63	25 - 125
2-Chlorotoluene	<1.00		20.0	16.23		ug/L		81	55 - 140
4-Chlorotoluene	<1.00		20.0	16.80		ug/L		84	50 - 140
1,2-Dibromo-3-Chloropropane	<10.0		20.0	20.50		ug/L		102	35 - 130
1,2-Dibromoethane (EDB)	<10.0		20.0	15.96		ug/L		80	55 - 140
Dibromomethane	<1.00		20.0	17.54		ug/L		88	60 - 135
1,2-Dichlorobenzene	<1.00		20.0	17.30		ug/L		86	55 - 140
1,3-Dichlorobenzene	<1.00		20.0	16.67		ug/L		83	55 - 135
1,4-Dichlorobenzene	<1.00		20.0	17.15		ug/L		86	55 - 140
Dichlorodifluoromethane	<3.00		20.0	17.54		ug/L		88	15 - 130
1,1-Dichloroethane	<1.00		20.0	16.56		ug/L		83	50 - 130
1,2-Dichloroethane	<1.00		20.0	17.13		ug/L		86	55 - 140
1,1-Dichloroethene	<2.00		20.0	18.07		ug/L		90	35 - 135
cis-1,2-Dichloroethene	<1.00		20.0	14.10		ug/L		70	45 - 135
trans-1,2-Dichloroethene	<1.00		20.0	18.97		ug/L		95	45 - 145
1,2-Dichloropropane	<1.00		20.0	13.78		ug/L		69	55 - 130
1,3-Dichloropropane	<1.00		20.0	16.45		ug/L		82	60 - 135
2,2-Dichloropropane	<4.00		20.0	16.00		ug/L		80	20 - 120
1,1-Dichloropropene	<1.00		20.0	13.31		ug/L		67	40 - 140
cis-1,3-Dichloropropene	<5.00		20.0	14.97		ug/L		75	25 - 120
trans-1,3-Dichloropropene	<5.00		20.0	14.59		ug/L		73	25 - 120
Ethylbenzene	<1.00		20.0	16.06		ug/L		80	45 - 135
Hexachlorobutadiene	<5.00		20.0	17.81		ug/L		89	40 - 135
Hexane	<1.00		20.0	15.15		ug/L		76	25 - 135
Isopropylbenzene	<1.00		20.0	16.50		ug/L		83	45 - 125
p-Isopropyltoluene	<1.00		20.0	16.46		ug/L		82	40 - 140
Methylene Chloride	<5.00		20.0	18.89		ug/L		94	45 - 145
Methyl tert-butyl ether	<1.00		20.0	21.23		ug/L		106	40 - 135
Naphthalene	<5.00		20.0	17.97		ug/L		90	40 - 135
N-Propylbenzene	<1.00		20.0	15.46		ug/L		77	45 - 140
Styrene	<1.00		20.0	16.42		ug/L		82	40 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-35011-1 MS
Matrix: Ground Water
Analysis Batch: 54586

Client Sample ID: MW-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	<1.00		20.0	17.04		ug/L		85	50 - 130
1,1,2,2-Tetrachloroethane	<1.00		20.0	16.42		ug/L		82	55 - 140
Tetrachloroethene	<1.00		20.0	14.34		ug/L		72	40 - 135
Toluene	<1.00		20.0	13.71		ug/L		69	45 - 135
1,2,3-Trichlorobenzene	<5.00		20.0	17.70		ug/L		88	50 - 140
1,2,4-Trichlorobenzene	<5.00		20.0	18.35		ug/L		92	40 - 135
1,1,1-Trichloroethane	<1.00		20.0	15.92		ug/L		80	40 - 125
1,1,2-Trichloroethane	<1.00		20.0	16.67		ug/L		83	60 - 130
Trichloroethene	<1.00		20.0	14.83		ug/L		74	50 - 130
Trichlorofluoromethane	<4.00		20.0	22.38		ug/L		112	40 - 145
1,2,3-Trichloropropane	<1.00		20.0	18.88		ug/L		94	55 - 150
1,2,4-Trimethylbenzene	<1.00		20.0	17.01		ug/L		85	45 - 140
1,3,5-Trimethylbenzene	<1.00		20.0	16.14		ug/L		81	45 - 140
Vinyl chloride	<1.00		20.0	16.45		ug/L		82	30 - 135
Xylenes, Total	<3.00		40.0	32.29		ug/L		81	40 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*110*		*80 - 120*

Lab Sample ID: 310-35011-1 MSD
Matrix: Ground Water
Analysis Batch: 54586

Client Sample ID: MW-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	<10.0		40.0	34.06		ug/L		79	45 - 150	4	20
Benzene	<0.500		20.0	14.48		ug/L		72	50 - 130	2	20
Bromobenzene	<1.00		20.0	17.10		ug/L		86	60 - 135	4	20
Bromochloromethane	<5.00		20.0	17.34		ug/L		87	55 - 145	9	20
Bromodichloromethane	<1.00		20.0	15.77		ug/L		79	50 - 130	4	20
Bromoform	<5.00		20.0	16.37		ug/L		82	30 - 125	11	20
Bromomethane	<4.00		20.0	17.39		ug/L		87	30 - 130	0	20
2-Butanone (MEK)	<10.0		40.0	37.28	F2	ug/L		93	45 - 140	25	20
n-Butylbenzene	<1.00		20.0	16.25		ug/L		81	40 - 135	1	20
sec-Butylbenzene	<1.00		20.0	15.31		ug/L		77	40 - 135	2	15
tert-Butylbenzene	<1.00		20.0	15.14		ug/L		76	40 - 135	8	15
Carbon disulfide	<1.00		20.0	16.17		ug/L		81	30 - 130	0	20
Carbon tetrachloride	<2.00		20.0	15.40		ug/L		77	35 - 130	5	20
Chlorobenzene	<1.00		20.0	16.29		ug/L		81	60 - 130	3	20
Chlorodibromomethane	<5.00		20.0	14.35		ug/L		72	35 - 130	2	20
Chloroethane	<4.00		20.0	19.11		ug/L		96	40 - 135	6	20
Chloroform	<1.00		20.0	18.35		ug/L		92	55 - 125	17	20
Chloromethane	<3.00		20.0	13.16		ug/L		66	25 - 125	5	20
2-Chlorotoluene	<1.00		20.0	15.90		ug/L		80	55 - 140	2	20
4-Chlorotoluene	<1.00		20.0	16.21		ug/L		81	50 - 140	4	20
1,2-Dibromo-3-Chloropropane	<10.0		20.0	18.05		ug/L		90	35 - 130	13	20
1,2-Dibromoethane (EDB)	<10.0		20.0	14.87		ug/L		74	55 - 140	7	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-35011-1 MSD
Matrix: Ground Water
Analysis Batch: 54586

Client Sample ID: MW-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	<1.00		20.0	15.91		ug/L		80	60 - 135	10	20
1,2-Dichlorobenzene	<1.00		20.0	16.66		ug/L		83	55 - 140	4	20
1,3-Dichlorobenzene	<1.00		20.0	15.89		ug/L		79	55 - 135	5	20
1,4-Dichlorobenzene	<1.00		20.0	17.46		ug/L		87	55 - 140	2	20
Dichlorodifluoromethane	<3.00		20.0	16.92		ug/L		85	15 - 130	4	20
1,1-Dichloroethane	<1.00		20.0	16.61		ug/L		83	50 - 130	0	20
1,2-Dichloroethane	<1.00		20.0	17.95		ug/L		90	55 - 140	5	20
1,1-Dichloroethene	<2.00		20.0	16.61		ug/L		83	35 - 135	8	20
cis-1,2-Dichloroethene	<1.00		20.0	17.43	F2	ug/L		87	45 - 135	21	20
trans-1,2-Dichloroethene	<1.00		20.0	16.08		ug/L		80	45 - 145	16	20
1,2-Dichloropropane	<1.00		20.0	14.45		ug/L		72	55 - 130	5	20
1,3-Dichloropropane	<1.00		20.0	14.11		ug/L		71	60 - 135	15	20
2,2-Dichloropropane	<4.00		20.0	17.60		ug/L		88	20 - 120	10	20
1,1-Dichloropropene	<1.00		20.0	13.91		ug/L		70	40 - 140	4	20
cis-1,3-Dichloropropene	<5.00		20.0	14.45		ug/L		72	25 - 120	4	20
trans-1,3-Dichloropropene	<5.00		20.0	14.45		ug/L		72	25 - 120	1	20
Ethylbenzene	<1.00		20.0	14.99		ug/L		75	45 - 135	7	20
Hexachlorobutadiene	<5.00		20.0	16.76		ug/L		84	40 - 135	6	20
Hexane	<1.00		20.0	13.05		ug/L		65	25 - 135	15	20
Isopropylbenzene	<1.00		20.0	15.50		ug/L		78	45 - 125	6	20
p-Isopropyltoluene	<1.00		20.0	15.40		ug/L		77	40 - 140	7	20
Methylene Chloride	<5.00		20.0	16.22		ug/L		81	45 - 145	15	20
Methyl tert-butyl ether	<1.00		20.0	20.10		ug/L		101	40 - 135	5	20
Naphthalene	<5.00		20.0	16.01		ug/L		80	40 - 135	12	20
N-Propylbenzene	<1.00		20.0	14.58		ug/L		73	45 - 140	6	20
Styrene	<1.00		20.0	16.36		ug/L		82	40 - 135	0	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	17.12		ug/L		86	50 - 130	0	20
1,1,2,2-Tetrachloroethane	<1.00		20.0	16.07		ug/L		80	55 - 140	2	20
Tetrachloroethene	<1.00		20.0	13.12		ug/L		66	40 - 135	9	20
Toluene	<1.00		20.0	13.25		ug/L		66	45 - 135	3	20
1,2,3-Trichlorobenzene	<5.00		20.0	18.96		ug/L		95	50 - 140	7	20
1,2,4-Trichlorobenzene	<5.00		20.0	17.01		ug/L		85	40 - 135	8	20
1,1,1-Trichloroethane	<1.00		20.0	17.31		ug/L		87	40 - 125	8	20
1,1,2-Trichloroethane	<1.00		20.0	13.97		ug/L		70	60 - 130	18	20
Trichloroethene	<1.00		20.0	13.76		ug/L		69	50 - 130	7	20
Trichlorofluoromethane	<4.00		20.0	20.62		ug/L		103	40 - 145	8	20
1,2,3-Trichloropropane	<1.00		20.0	17.35		ug/L		87	55 - 150	8	20
1,2,4-Trimethylbenzene	<1.00		20.0	16.15		ug/L		81	45 - 140	5	20
1,3,5-Trimethylbenzene	<1.00		20.0	15.68		ug/L		78	45 - 140	3	20
Vinyl chloride	<1.00		20.0	17.58		ug/L		88	30 - 135	7	20
Xylenes, Total	<3.00		40.0	30.37		ug/L		76	40 - 135	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*75 - 120*
Dibromofluoromethane (Surr)	*115*		*75 - 120*
Toluene-d8 (Surr)	*107*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-54969/7
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/21/14 08:45	1
Benzene	<0.500		0.500		ug/L			07/21/14 08:45	1
Bromobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Bromochloromethane	<5.00		5.00		ug/L			07/21/14 08:45	1
Bromodichloromethane	<1.00		1.00		ug/L			07/21/14 08:45	1
Bromoform	<5.00		5.00		ug/L			07/21/14 08:45	1
Bromomethane	<4.00		4.00		ug/L			07/21/14 08:45	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/21/14 08:45	1
n-Butylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Carbon disulfide	<1.00		1.00		ug/L			07/21/14 08:45	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/21/14 08:45	1
Chlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/21/14 08:45	1
Chloroethane	<4.00		4.00		ug/L			07/21/14 08:45	1
Chloroform	<1.00		1.00		ug/L			07/21/14 08:45	1
Chloromethane	<3.00		3.00		ug/L			07/21/14 08:45	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 08:45	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/21/14 08:45	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/21/14 08:45	1
Dibromomethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/21/14 08:45	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/21/14 08:45	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/21/14 08:45	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/21/14 08:45	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/21/14 08:45	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 08:45	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 08:45	1
Ethylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/21/14 08:45	1
Hexane	<1.00		1.00		ug/L			07/21/14 08:45	1
Isopropylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/21/14 08:45	1
Methylene Chloride	<5.00		5.00		ug/L			07/21/14 08:45	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/21/14 08:45	1
Naphthalene	<5.00		5.00		ug/L			07/21/14 08:45	1
N-Propylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Styrene	<1.00		1.00		ug/L			07/21/14 08:45	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-54969/7
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
Tetrachloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
Toluene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 08:45	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 08:45	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
Trichloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/21/14 08:45	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Vinyl chloride	<1.00		1.00		ug/L			07/21/14 08:45	1
Xylenes, Total	<3.00		3.00		ug/L			07/21/14 08:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/21/14 08:45*	*1*
Dibromofluoromethane (Surr)	*115*		*75 - 120*		*07/21/14 08:45*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*07/21/14 08:45*	*1*

Lab Sample ID: LCS 310-54969/4
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	46.74		ug/L		117	60 - 150
Benzene	20.0	18.97		ug/L		95	70 - 130
Bromobenzene	20.0	18.50		ug/L		93	75 - 130
Bromochloromethane	20.0	19.99		ug/L		100	65 - 145
Bromodichloromethane	20.0	21.21		ug/L		106	60 - 130
Bromoform	20.0	15.88		ug/L		79	30 - 125
Bromomethane	20.0	15.35		ug/L		77	35 - 130
2-Butanone (MEK)	40.0	40.95		ug/L		102	55 - 140
n-Butylbenzene	20.0	18.21		ug/L		91	55 - 135
sec-Butylbenzene	20.0	18.76		ug/L		94	65 - 135
tert-Butylbenzene	20.0	18.75		ug/L		94	60 - 135
Carbon disulfide	20.0	18.56		ug/L		93	40 - 130
Carbon tetrachloride	20.0	23.66		ug/L		118	55 - 130
Chlorobenzene	20.0	18.23		ug/L		91	75 - 125
Chlorodibromomethane	20.0	19.19		ug/L		96	45 - 125
Chloroethane	20.0	23.60		ug/L		118	55 - 135
Chloroform	20.0	21.52		ug/L		108	70 - 125
Chloromethane	20.0	18.28		ug/L		91	30 - 125
2-Chlorotoluene	20.0	18.77		ug/L		94	75 - 135
4-Chlorotoluene	20.0	19.43		ug/L		97	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	19.78		ug/L		99	35 - 130
1,2-Dibromoethane (EDB)	20.0	20.25		ug/L		101	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-54969/4
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	20.17		ug/L		101	75 - 130
1,2-Dichlorobenzene	20.0	17.76		ug/L		89	65 - 135
1,3-Dichlorobenzene	20.0	18.46		ug/L		92	70 - 130
1,4-Dichlorobenzene	20.0	18.00		ug/L		90	60 - 140
Dichlorodifluoromethane	20.0	29.24	*	ug/L		146	35 - 130
1,1-Dichloroethane	20.0	20.11		ug/L		101	60 - 130
1,2-Dichloroethane	20.0	22.99		ug/L		115	65 - 140
1,1-Dichloroethene	20.0	20.73		ug/L		104	60 - 135
cis-1,2-Dichloroethene	20.0	19.54		ug/L		98	70 - 135
trans-1,2-Dichloroethene	20.0	20.06		ug/L		100	60 - 145
1,2-Dichloropropane	20.0	18.56		ug/L		93	65 - 130
1,3-Dichloropropane	20.0	19.44		ug/L		97	75 - 125
2,2-Dichloropropane	20.0	23.57		ug/L		118	25 - 120
1,1-Dichloropropene	20.0	19.14		ug/L		96	60 - 140
cis-1,3-Dichloropropene	20.0	18.06		ug/L		90	30 - 120
trans-1,3-Dichloropropene	20.0	17.23		ug/L		86	35 - 120
Ethylbenzene	20.0	18.88		ug/L		94	70 - 130
Hexachlorobutadiene	20.0	19.61		ug/L		98	60 - 135
Hexane	20.0	20.84		ug/L		104	40 - 135
Isopropylbenzene	20.0	18.70		ug/L		94	70 - 125
p-Isopropyltoluene	20.0	18.91		ug/L		95	60 - 140
Methylene Chloride	20.0	18.85		ug/L		94	55 - 145
Methyl tert-butyl ether	20.0	20.45		ug/L		102	50 - 135
Naphthalene	20.0	15.89		ug/L		79	40 - 135
N-Propylbenzene	20.0	18.68		ug/L		93	70 - 135
Styrene	20.0	18.80		ug/L		94	70 - 130
1,1,1,2-Tetrachloroethane	20.0	19.50		ug/L		97	65 - 120
1,1,2,2-Tetrachloroethane	20.0	17.59		ug/L		88	65 - 130
Tetrachloroethene	20.0	19.45		ug/L		97	70 - 135
Toluene	20.0	18.61		ug/L		93	70 - 135
1,2,3-Trichlorobenzene	20.0	16.72		ug/L		84	55 - 130
1,2,4-Trichlorobenzene	20.0	17.10		ug/L		86	40 - 135
1,1,1-Trichloroethane	20.0	23.18		ug/L		116	60 - 125
1,1,2-Trichloroethane	20.0	19.27		ug/L		96	75 - 125
Trichloroethene	20.0	21.09		ug/L		105	70 - 130
Trichlorofluoromethane	20.0	29.30	*	ug/L		146	55 - 145
1,2,3-Trichloropropane	20.0	19.08		ug/L		95	60 - 150
1,2,4-Trimethylbenzene	20.0	19.33		ug/L		97	70 - 140
1,3,5-Trimethylbenzene	20.0	19.14		ug/L		96	70 - 140
Vinyl chloride	20.0	22.19		ug/L		111	45 - 135
Xylenes, Total	40.0	35.64		ug/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*
Dibromofluoromethane (Surr)	*115*		*75 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-54884/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54884

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			07/18/14 12:22	1
Chloride	<1.00		1.00		mg/L			07/18/14 12:22	1

Lab Sample ID: LCS 310-54884/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	10.02		mg/L		100	90 - 110
Chloride	10.0	10.26		mg/L		103	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-54815/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54981 — **Prep Batch: 54815**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/18/14 08:16	07/18/14 20:23	1
Manganese	<0.0100		0.0100		mg/L		07/18/14 08:16	07/18/14 20:23	1

Lab Sample ID: LCS 310-54815/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54981 — **Prep Batch: 54815**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	1.840		mg/L		92	85 - 110
Manganese	1.00	0.9573		mg/L		96	85 - 115

Lab Sample ID: 310-35011-5 MS — **Client Sample ID: MW-63**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54981 — **Prep Batch: 54815**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	1.42		1.00	2.249		mg/L		83	80 - 115

Lab Sample ID: 310-35011-5 MS — **Client Sample ID: MW-63**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 55096 — **Prep Batch: 54815**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.102		2.00	2.138		mg/L		102	75 - 125

Lab Sample ID: 310-35011-4 DU — **Client Sample ID: MW-61**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54981 — **Prep Batch: 54815**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Manganese	0.0400		0.03970		mg/L		0.7	15

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 310-35011-4 DU — **Client Sample ID: MW-61**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 55096 — **Prep Batch: 54815**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Iron	<0.100			<0.100		mg/L				NC	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-54993/19 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54993

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			07/18/14 16:24	1

Lab Sample ID: LCS 310-54993/20 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54993

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			4.99	4.761		mg/L		95	90 - 110		

Lab Sample ID: MB 310-55270/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55270

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			07/22/14 13:31	1

Lab Sample ID: LCS 310-55270/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55270

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			4.99	4.770		mg/L		96	90 - 110		

Lab Sample ID: 310-35011-3 MS — **Client Sample ID: MW-28**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 55270

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	99.7		49.9	90.73	F1	mg/L		-18	75 - 125		

Lab Sample ID: 310-35011-3 MSD — **Client Sample ID: MW-28**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 55270

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	99.7		49.9	90.15	F1	mg/L		-19	75 - 125	1	20

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-54784/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			07/17/14 15:15	1

Lab Sample ID: LCS 310-54784/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.4636		mg/L		93	90 - 110

Lab Sample ID: 310-35011-1 MS — **Client Sample ID: MW-8**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54784

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	<0.100		0.200	0.2654	F1	mg/L		133	75 - 125

Lab Sample ID: 310-35011-1 MSD — **Client Sample ID: MW-8**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54784

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.100		0.200	0.2678	F1	mg/L		134	75 - 125	1	10

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-54787/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54787

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			07/17/14 14:53	1

Lab Sample ID: LCS 310-54787/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54787

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.672	0.6833		mg/L		102	90 - 110

Lab Sample ID: 310-35011-1 MS — **Client Sample ID: MW-8**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54787

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	<0.100		0.200	0.2118		mg/L		106	75 - 125

Method: SM 4500 NO3 E - Nitrogen, Nitrate (Continued)

Lab Sample ID: 310-35011-1 MSD
Matrix: Ground Water
Analysis Batch: 54787

Client Sample ID: MW-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	<0.100		0.200	0.2138		mg/L		107	75 - 125	1	20

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

GC/MS VOA

Analysis Batch: 54586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35011-1	MW-8	Total/NA	Ground Water	8260C	
310-35011-1 MS	MW-8	Total/NA	Ground Water	8260C	
310-35011-1 MSD	MW-8	Total/NA	Ground Water	8260C	
310-35011-2	MW-15	Total/NA	Ground Water	8260C	
310-35011-3	MW-28	Total/NA	Ground Water	8260C	
310-35011-4	MW-61	Total/NA	Ground Water	8260C	
310-35011-5	MW-63	Total/NA	Ground Water	8260C	
310-35011-6	MW-64	Total/NA	Ground Water	8260C	
310-35011-8	Trip Blank	Total/NA	Water	8260C	
LCS 310-54586/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-54586/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 54969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35011-7	Dup-01	Total/NA	Ground Water	8260C	
LCS 310-54969/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-54969/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 54884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35011-1	MW-8	Total/NA	Ground Water	9056A	
310-35011-2	MW-15	Total/NA	Ground Water	9056A	
310-35011-3	MW-28	Total/NA	Ground Water	9056A	
310-35011-4	MW-61	Total/NA	Ground Water	9056A	
310-35011-5	MW-63	Total/NA	Ground Water	9056A	
310-35011-6	MW-64	Total/NA	Ground Water	9056A	
310-35011-7	Dup-01	Total/NA	Ground Water	9056A	
LCS 310-54884/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-54884/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 54815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35011-1	MW-8	Total/NA	Ground Water	3010A	
310-35011-2	MW-15	Total/NA	Ground Water	3010A	
310-35011-3	MW-28	Total/NA	Ground Water	3010A	
310-35011-4	MW-61	Total/NA	Ground Water	3010A	
310-35011-4 DU	MW-61	Total/NA	Ground Water	3010A	
310-35011-5	MW-63	Total/NA	Ground Water	3010A	
310-35011-5 MS	MW-63	Total/NA	Ground Water	3010A	
310-35011-6	MW-64	Total/NA	Ground Water	3010A	
310-35011-7	Dup-01	Total/NA	Ground Water	3010A	
LCS 310-54815/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-54815/1-A	Method Blank	Total/NA	Water	3010A	

Metals (Continued)

Analysis Batch: 54981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35011-1	MW-8	Total/NA	Ground Water	6010C	54815
310-35011-2	MW-15	Total/NA	Ground Water	6010C	54815
310-35011-4	MW-61	Total/NA	Ground Water	6010C	54815
310-35011-4 DU	MW-61	Total/NA	Ground Water	6010C	54815
310-35011-5	MW-63	Total/NA	Ground Water	6010C	54815
310-35011-5 MS	MW-63	Total/NA	Ground Water	6010C	54815
310-35011-6	MW-64	Total/NA	Ground Water	6010C	54815
310-35011-7	Dup-01	Total/NA	Ground Water	6010C	54815
LCS 310-54815/2-A	Lab Control Sample	Total/NA	Water	6010C	54815
MB 310-54815/1-A	Method Blank	Total/NA	Water	6010C	54815

Analysis Batch: 55096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35011-1	MW-8	Total/NA	Ground Water	6010C	54815
310-35011-2	MW-15	Total/NA	Ground Water	6010C	54815
310-35011-3	MW-28	Total/NA	Ground Water	6010C	54815
310-35011-4	MW-61	Total/NA	Ground Water	6010C	54815
310-35011-4 DU	MW-61	Total/NA	Ground Water	6010C	54815
310-35011-5	MW-63	Total/NA	Ground Water	6010C	54815
310-35011-5 MS	MW-63	Total/NA	Ground Water	6010C	54815
310-35011-6	MW-64	Total/NA	Ground Water	6010C	54815
310-35011-7	Dup-01	Total/NA	Ground Water	6010C	54815

General Chemistry

Analysis Batch: 54784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35011-1	MW-8	Total/NA	Ground Water	SM 4500 NO2 B	
310-35011-1 MS	MW-8	Total/NA	Ground Water	SM 4500 NO2 B	
310-35011-1 MSD	MW-8	Total/NA	Ground Water	SM 4500 NO2 B	
310-35011-2	MW-15	Total/NA	Ground Water	SM 4500 NO2 B	
310-35011-3	MW-28	Total/NA	Ground Water	SM 4500 NO2 B	
310-35011-4	MW-61	Total/NA	Ground Water	SM 4500 NO2 B	
310-35011-5	MW-63	Total/NA	Ground Water	SM 4500 NO2 B	
310-35011-6	MW-64	Total/NA	Ground Water	SM 4500 NO2 B	
310-35011-7	Dup-01	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-54784/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-54784/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 54787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35011-1	MW-8	Total/NA	Ground Water	SM 4500 NO3 E	
310-35011-1 MS	MW-8	Total/NA	Ground Water	SM 4500 NO3 E	
310-35011-1 MSD	MW-8	Total/NA	Ground Water	SM 4500 NO3 E	
310-35011-2	MW-15	Total/NA	Ground Water	SM 4500 NO3 E	
310-35011-3	MW-28	Total/NA	Ground Water	SM 4500 NO3 E	
310-35011-4	MW-61	Total/NA	Ground Water	SM 4500 NO3 E	
310-35011-5	MW-63	Total/NA	Ground Water	SM 4500 NO3 E	
310-35011-6	MW-64	Total/NA	Ground Water	SM 4500 NO3 E	
310-35011-7	Dup-01	Total/NA	Ground Water	SM 4500 NO3 E	

General Chemistry (Continued)

Analysis Batch: 54787 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-54787/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-54787/5	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 54993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35011-1	MW-8	Total/NA	Ground Water	9060A	
310-35011-2	MW-15	Total/NA	Ground Water	9060A	
310-35011-4	MW-61	Total/NA	Ground Water	9060A	
310-35011-5	MW-63	Total/NA	Ground Water	9060A	
310-35011-6	MW-64	Total/NA	Ground Water	9060A	
310-35011-7	Dup-01	Total/NA	Ground Water	9060A	
LCS 310-54993/20	Lab Control Sample	Total/NA	Water	9060A	
MB 310-54993/19	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 55270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35011-3	MW-28	Total/NA	Ground Water	9060A	
310-35011-3 MS	MW-28	Total/NA	Ground Water	9060A	
310-35011-3 MSD	MW-28	Total/NA	Ground Water	9060A	
LCS 310-55270/7	Lab Control Sample	Total/NA	Water	9060A	
MB 310-55270/5	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: MW-8

Lab Sample ID: 310-35011-1
Date Collected: 07/16/14 11:30
Matrix: Ground Water
Date Received: 07/17/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54586	07/18/14 13:32	SJN	TAL CF
Total/NA	Analysis	9056A		5	54884	07/18/14 12:22	CDD	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	54981	07/18/14 20:52	MRH	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	55096	07/21/14 15:12	MRH	TAL CF
Total/NA	Analysis	9060A		1	54993	07/18/14 19:52	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54784	07/17/14 15:15	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54787	07/17/14 15:30	MDK	TAL CF

Client Sample ID: MW-15

Lab Sample ID: 310-35011-2
Date Collected: 07/16/14 16:45
Matrix: Ground Water
Date Received: 07/17/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54586	07/18/14 13:58	SJN	TAL CF
Total/NA	Analysis	9056A		5	54884	07/18/14 12:22	CDD	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	54981	07/18/14 20:54	MRH	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	55096	07/21/14 15:14	MRH	TAL CF
Total/NA	Analysis	9060A		1	54993	07/18/14 20:09	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54784	07/17/14 15:15	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54787	07/17/14 15:37	MDK	TAL CF

Client Sample ID: MW-28

Lab Sample ID: 310-35011-3
Date Collected: 07/16/14 16:10
Matrix: Ground Water
Date Received: 07/17/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	54586	07/18/14 14:22	SJN	TAL CF
Total/NA	Analysis	9056A		5	54884	07/18/14 12:22	CDD	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		5	55096	07/21/14 15:16	MRH	TAL CF
Total/NA	Analysis	9060A		10	55270	07/22/14 14:13	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54784	07/17/14 15:15	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54787	07/17/14 15:39	MDK	TAL CF

Client Sample ID: MW-61 — Lab Sample ID: 310-35011-4

Date Collected: 07/16/14 13:35 — **Matrix: Ground Water**
Date Received: 07/17/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54586	07/18/14 14:48	SJN	TAL CF
Total/NA	Analysis	9056A		5	54884	07/18/14 12:22	CDD	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	54981	07/18/14 20:58	MRH	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	55096	07/21/14 15:18	MRH	TAL CF
Total/NA	Analysis	9060A		1	54993	07/18/14 20:42	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54784	07/17/14 15:15	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54787	07/17/14 15:11	MDK	TAL CF

Client Sample ID: MW-63 — Lab Sample ID: 310-35011-5

Date Collected: 07/16/14 08:40 — **Matrix: Ground Water**
Date Received: 07/17/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54586	07/18/14 15:12	SJN	TAL CF
Total/NA	Analysis	9056A		5	54884	07/18/14 12:22	CDD	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	54981	07/18/14 21:02	MRH	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	55096	07/21/14 15:22	MRH	TAL CF
Total/NA	Analysis	9060A		1	54993	07/18/14 20:56	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54784	07/17/14 15:15	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54787	07/17/14 15:44	MDK	TAL CF

Client Sample ID: MW-64 — Lab Sample ID: 310-35011-6

Date Collected: 07/16/14 10:00 — **Matrix: Ground Water**
Date Received: 07/17/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54586	07/18/14 15:37	SJN	TAL CF
Total/NA	Analysis	9056A		5	54884	07/18/14 12:22	CDD	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	54981	07/18/14 21:10	MRH	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	55096	07/21/14 15:30	MRH	TAL CF
Total/NA	Analysis	9060A		1	54993	07/18/14 21:10	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54784	07/17/14 15:15	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54787	07/17/14 15:46	MDK	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Client Sample ID: Dup-01

Lab Sample ID: 310-35011-7

Date Collected: 07/16/14 00:00
Matrix: Ground Water
Date Received: 07/17/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54969	07/21/14 09:11	SJN	TAL CF
Total/NA	Analysis	9056A		5	54884	07/18/14 12:22	CDD	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	54981	07/18/14 21:12	MRH	TAL CF
Total/NA	Prep	3010A			54815	07/18/14 08:16	SAV	TAL CF
Total/NA	Analysis	6010C		1	55096	07/21/14 15:32	MRH	TAL CF
Total/NA	Analysis	9060A		1	54993	07/18/14 21:25	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54784	07/17/14 15:15	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54787	07/17/14 15:49	MDK	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-35011-8

Date Collected: 07/16/14 00:00
Matrix: Water
Date Received: 07/17/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54586	07/18/14 11:27	SJN	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-14
Georgia	State Program	4	N/A	09-29-14
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14
Oregon	NELAP	10	IA100001	09-29-14
Wisconsin	State Program	5	999917270	08-31-14

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35011-1
SDG: 103-8705

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

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Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Te
Cedar Falls Facility

310-35011 Chain of Custody

Client: Golder Project: Electrolux

City: State:

Date: 7/17/14 Receiver's Initials: TG Time (Delivered): 9:12

Temperature Record:

Cooler ID# (If Applicable): 432

Uncorrected Temp: 0.5 °C

Corrected Temp: 0.6 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [x] IR "G" - 130195822
- [ ] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other:

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other:
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)*

  P.V.'s in this Cooler

- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

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704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2426

TestAmerica Sample Receipt and Temperature Log Form
Cedar Falls Facility

Client: Golder Project: Electrolux

City: State:

Date: 7/17/14 Receiver's Initials: TO Time (Delivered): 9:12

Temperature Record:

Cooler ID# (If Applicable): X-3

Uncorrected Temp: 4.8 °C

Corrected Temp: 4.9 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [x] IR "G" - 130195822
- [ ] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other:

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other:
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)*
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Andrew T Koff
(Signature)

Your PO #: 103-87305
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: Jpeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify Stormwater	Analyze For: 8260 Volatiles	Nitrate, Nitrite	Sulfate, Chloride	TOC	Iron, Manganese							E-mail results	Send QC with report
MW-8	7/16/14	1130	6	X			X	X	X		X		X		X						X	X	X	X	X								X	X
MW-15		1645																																
MW-28		1610																																
MW-61		1335																																
MW-63		840																																
MW-64		1010																																
Dup-01																																		
Trip Blank			3				X														X													

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	7/16/14	1730						

Shipped Via:		Comments:	Shipped Via:
Received for TestAmerica by:	Date 7/17/14	Time 9:17	Temperature Upon Receipt:	Laboratory Comments:

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-8	310-35011-B-1	Plastic 250ml - with Sulfuric Acid	<2		
MW-8	310-35011-C-1	Plastic 250ml - with Nitric Acid	<2		
MW-15	310-35011-B-2	Plastic 250ml - with Sulfuric Acid	<2		
MW-15	310-35011-C-2	Plastic 250ml - with Nitric Acid	<2		
MW-28	310-35011-B-3	Plastic 250ml - with Sulfuric Acid	<2		
MW-28	310-35011-C-3	Plastic 250ml - with Nitric Acid	<2		
MW-61	310-35011-B-4	Plastic 250ml - with Sulfuric Acid	<2		
MW-61	310-35011-C-4	Plastic 250ml - with Nitric Acid	<2		
MW-63	310-35011-B-5	Plastic 250ml - with Sulfuric Acid	<2		
MW-63	310-35011-C-5	Plastic 250ml - with Nitric Acid	<2		
MW-64	310-35011-B-6	Plastic 250ml - with Sulfuric Acid	<2		
MW-64	310-35011-C-6	Plastic 250ml - with Nitric Acid	<2		
Dup-01	310-35011-B-7	Plastic 250ml - with Sulfuric Acid	<2		
Dup-01	310-35011-C-7	Plastic 250ml - with Nitric Acid	<2		

7/17/14

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-35011-1
SDG Number: 103-8705

Login Number: 35011
List Number: 1
Creator: Facciani, Melene K

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-35091-1
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
7/31/2014 10:13:38 AM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-35091-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-35091-1

Comments
No additional comments.

Receipt
The samples were received on 7/18/2014 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.0º C and 1.6º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 54969 recovered above the upper control limit for Carbon tetrachloride (22.8 %D), 1,2-Dichloroethane (27.3 %D), and 1,1,1-Trichloroethane (21.2 %D). The LCS associated with this CCV passes using CCV criteria for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-54969/3).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 54969 recovered above the upper control limit for Trichlorofluoromethane (29.1 %D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-54969/3).

Method(s) 8260C: The laboratory control sample (LCS) for batch 54969 recovered outside control limits for the following analytes: Dichlorodifluoromethane and Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: Surrogate recovery for the following sample was outside the upper control limit: MW-57 (310-35091-8). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method(s) 9056A: The following samples were diluted due to the nature of the sample matrix: MW-46 (310-35091-6) and Dup-02 (310-35091-9). Elevated reporting limits (RLs) are provided for chloride.

Method(s) 9056A: The following sample was diluted due to the nature of the sample matrix: MW-25S (310-35091-1). Elevated reporting limits (RLs) are provided for sulfate.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-35091-1	MW-25S	Ground Water	07/17/14 16:10	07/18/14 09:30
310-35091-2	MW-25D	Ground Water	07/17/14 15:40	07/18/14 09:30
310-35091-3	MW-26D	Ground Water	07/17/14 15:10	07/18/14 09:30
310-35091-4	MW-31	Ground Water	07/17/14 14:30	07/18/14 09:30
310-35091-5	MW-43D	Ground Water	07/17/14 08:15	07/18/14 09:30
310-35091-6	MW-46	Ground Water	07/17/14 12:40	07/18/14 09:30
310-35091-7	MW-47D	Ground Water	07/17/14 13:50	07/18/14 09:30
310-35091-8	MW-57	Ground Water	07/17/14 09:45	07/18/14 09:30
310-35091-9	Dup-02	Ground Water	07/17/14 00:00	07/18/14 09:30
310-35091-10	Trip Blank	Water	07/17/14 00:00	07/18/14 09:30

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-25S — Lab Sample ID: 310-35091-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9790		1000		ug/L	100		8260C	Total/NA
cis-1,2-Dichloroethene	33400		100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	137		100		ug/L	100		8260C	Total/NA
Vinyl chloride	3030		100		ug/L	100		8260C	Total/NA
Chloride	142		5.00		mg/L	5		9056A	Total/NA
Iron	2.28		1.50		mg/L	15		6010C	Total/NA
Manganese	0.837		0.150		mg/L	15		6010C	Total/NA
Total Organic Carbon	518		80.0		mg/L	80		9060A	Total/NA

Client Sample ID: MW-25D — Lab Sample ID: 310-35091-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	10.2		1.00		ug/L	1		8260C	Total/NA
Sulfate	25.4		5.00		mg/L	5		9056A	Total/NA
Chloride	5.15		5.00		mg/L	5		9056A	Total/NA
Iron	0.116		0.100		mg/L	1		6010C	Total/NA
Manganese	0.208		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.61		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.115		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-26D — Lab Sample ID: 310-35091-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	13.7		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	51.5		1.00		ug/L	1		8260C	Total/NA
Sulfate	43.2		5.00		mg/L	5		9056A	Total/NA
Chloride	11.0		5.00		mg/L	5		9056A	Total/NA
Manganese	0.0885		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.75		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.425		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-31 — Lab Sample ID: 310-35091-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	6780		100		ug/L	100		8260C	Total/NA
Trichloroethene	2710		100		ug/L	100		8260C	Total/NA
Sulfate	178		5.00		mg/L	5		9056A	Total/NA
Chloride	43.8		5.00		mg/L	5		9056A	Total/NA
Manganese	0.0975		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.01		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-43D — Lab Sample ID: 310-35091-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	21.1		5.00		mg/L	5		9056A	Total/NA
Chloride	12.3		5.00		mg/L	5		9056A	Total/NA
Manganese	0.210		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.90		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.288		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-46 — Lab Sample ID: 310-35091-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	359		10.0		ug/L	10		8260C	Total/NA
Tetrachloroethene	11.5		10.0		ug/L	10		8260C	Total/NA
Trichloroethene	21000		100		ug/L	100		8260C	Total/NA
Sulfate	25.4		5.00		mg/L	5		9056A	Total/NA
Iron	0.136		0.100		mg/L	1		6010C	Total/NA
Manganese	0.790		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.42		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-47D — Lab Sample ID: 310-35091-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	20900		100		ug/L	100		8260C	Total/NA
Trichloroethene	25300		100		ug/L	100		8260C	Total/NA
Vinyl chloride	492		100		ug/L	100		8260C	Total/NA
Sulfate	19.8		5.00		mg/L	5		9056A	Total/NA
Chloride	144		5.00		mg/L	5		9056A	Total/NA
Iron	0.820		0.100		mg/L	1		6010C	Total/NA
Manganese	0.697		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.67		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-57 — Lab Sample ID: 310-35091-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1100		10.0		ug/L	10		8260C	Total/NA
Sulfate	55.6		5.00		mg/L	5		9056A	Total/NA
Chloride	15.6		5.00		mg/L	5		9056A	Total/NA
Iron	0.175		0.100		mg/L	1		6010C	Total/NA
Manganese	0.686		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.76		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: Dup-02 — Lab Sample ID: 310-35091-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	74.5		10.0		ug/L	10		8260C	Total/NA
Trichloroethene	313		10.0		ug/L	10		8260C	Total/NA
Sulfate	16.8		5.00		mg/L	5		9056A	Total/NA
Iron	0.252		0.100		mg/L	1		6010C	Total/NA
Manganese	0.0433		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.97		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.379		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-35091-10

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-25S

Date Collected: 07/17/14 16:10
Date Received: 07/18/14 09:30

Lab Sample ID: 310-35091-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**9790**		1000		ug/L			07/19/14 01:58	100
Benzene	<50.0		50.0		ug/L			07/19/14 01:58	100
Bromobenzene	<100		100		ug/L			07/19/14 01:58	100
Bromochloromethane	<500		500		ug/L			07/19/14 01:58	100
Bromodichloromethane	<100		100		ug/L			07/19/14 01:58	100
Bromoform	<500		500		ug/L			07/19/14 01:58	100
Bromomethane	<400		400		ug/L			07/19/14 01:58	100
2-Butanone (MEK)	<1000		1000		ug/L			07/19/14 01:58	100
n-Butylbenzene	<100		100		ug/L			07/19/14 01:58	100
sec-Butylbenzene	<100		100		ug/L			07/19/14 01:58	100
tert-Butylbenzene	<100		100		ug/L			07/19/14 01:58	100
Carbon disulfide	<100		100		ug/L			07/19/14 01:58	100
Carbon tetrachloride	<200		200		ug/L			07/19/14 01:58	100
Chlorobenzene	<100		100		ug/L			07/19/14 01:58	100
Chlorodibromomethane	<500		500		ug/L			07/19/14 01:58	100
Chloroethane	<400		400		ug/L			07/19/14 01:58	100
Chloroform	<100		100		ug/L			07/19/14 01:58	100
Chloromethane	<300		300		ug/L			07/19/14 01:58	100
2-Chlorotoluene	<100		100		ug/L			07/19/14 01:58	100
4-Chlorotoluene	<100		100		ug/L			07/19/14 01:58	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			07/19/14 01:58	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			07/19/14 01:58	100
Dibromomethane	<100		100		ug/L			07/19/14 01:58	100
1,2-Dichlorobenzene	<100		100		ug/L			07/19/14 01:58	100
1,3-Dichlorobenzene	<100		100		ug/L			07/19/14 01:58	100
1,4-Dichlorobenzene	<100		100		ug/L			07/19/14 01:58	100
Dichlorodifluoromethane	<300		300		ug/L			07/19/14 01:58	100
1,1-Dichloroethane	<100		100		ug/L			07/19/14 01:58	100
1,2-Dichloroethane	<100		100		ug/L			07/19/14 01:58	100
1,1-Dichloroethene	<200		200		ug/L			07/19/14 01:58	100
cis-1,2-Dichloroethene	**33400**		100		ug/L			07/19/14 01:58	100
trans-1,2-Dichloroethene	**137**		100		ug/L			07/19/14 01:58	100
1,2-Dichloropropane	<100		100		ug/L			07/19/14 01:58	100
1,3-Dichloropropane	<100		100		ug/L			07/19/14 01:58	100
2,2-Dichloropropane	<400		400		ug/L			07/19/14 01:58	100
1,1-Dichloropropene	<100		100		ug/L			07/19/14 01:58	100
cis-1,3-Dichloropropene	<500		500		ug/L			07/19/14 01:58	100
trans-1,3-Dichloropropene	<500		500		ug/L			07/19/14 01:58	100
Ethylbenzene	<100		100		ug/L			07/19/14 01:58	100
Hexachlorobutadiene	<500		500		ug/L			07/19/14 01:58	100
Hexane	<100		100		ug/L			07/19/14 01:58	100
Isopropylbenzene	<100		100		ug/L			07/19/14 01:58	100
p-Isopropyltoluene	<100		100		ug/L			07/19/14 01:58	100
Methylene Chloride	<500		500		ug/L			07/19/14 01:58	100
Methyl tert-butyl ether	<100		100		ug/L			07/19/14 01:58	100
Naphthalene	<500		500		ug/L			07/19/14 01:58	100
N-Propylbenzene	<100		100		ug/L			07/19/14 01:58	100
Styrene	<100		100		ug/L			07/19/14 01:58	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			07/19/14 01:58	100

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-25S

Date Collected: 07/17/14 16:10
Date Received: 07/18/14 09:30

Lab Sample ID: 310-35091-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			07/19/14 01:58	100
Tetrachloroethene	<100		100		ug/L			07/19/14 01:58	100
Toluene	<100		100		ug/L			07/19/14 01:58	100
1,2,3-Trichlorobenzene	<500		500		ug/L			07/19/14 01:58	100
1,2,4-Trichlorobenzene	<500		500		ug/L			07/19/14 01:58	100
1,1,1-Trichloroethane	<100		100		ug/L			07/19/14 01:58	100
1,1,2-Trichloroethane	<100		100		ug/L			07/19/14 01:58	100
Trichloroethene	<100		100		ug/L			07/19/14 01:58	100
Trichlorofluoromethane	<400		400		ug/L			07/19/14 01:58	100
1,2,3-Trichloropropane	<100		100		ug/L			07/19/14 01:58	100
1,2,4-Trimethylbenzene	<100		100		ug/L			07/19/14 01:58	100
1,3,5-Trimethylbenzene	<100		100		ug/L			07/19/14 01:58	100
Vinyl chloride	**3030**		100		ug/L			07/19/14 01:58	100
Xylenes, Total	<300		300		ug/L			07/19/14 01:58	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/19/14 01:58*	*100*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*07/19/14 01:58*	*100*
Toluene-d8 (Surr)	*103*		*80 - 120*		*07/19/14 01:58*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			07/22/14 11:12	5
Chloride	**142**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**2.28**		1.50		mg/L		07/21/14 08:21	07/21/14 19:12	15
Manganese	**0.837**		0.150		mg/L		07/21/14 08:21	07/21/14 19:12	15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**518**		80.0		mg/L			07/22/14 15:35	80
Nitrite as N	<0.100		0.100		mg/L			07/18/14 13:50	1
Nitrate as N	<0.100		0.100		mg/L			07/18/14 13:50	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-25D

Date Collected: 07/17/14 15:40
Date Received: 07/18/14 09:30

Lab Sample ID: 310-35091-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/19/14 02:23	1
Benzene	<0.500		0.500		ug/L			07/19/14 02:23	1
Bromobenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
Bromochloromethane	<5.00		5.00		ug/L			07/19/14 02:23	1
Bromodichloromethane	<1.00		1.00		ug/L			07/19/14 02:23	1
Bromoform	<5.00		5.00		ug/L			07/19/14 02:23	1
Bromomethane	<4.00		4.00		ug/L			07/19/14 02:23	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/19/14 02:23	1
n-Butylbenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
Carbon disulfide	<1.00		1.00		ug/L			07/19/14 02:23	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/19/14 02:23	1
Chlorobenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/19/14 02:23	1
Chloroethane	<4.00		4.00		ug/L			07/19/14 02:23	1
Chloroform	<1.00		1.00		ug/L			07/19/14 02:23	1
Chloromethane	<3.00		3.00		ug/L			07/19/14 02:23	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/19/14 02:23	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/19/14 02:23	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/19/14 02:23	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/19/14 02:23	1
Dibromomethane	<1.00		1.00		ug/L			07/19/14 02:23	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/19/14 02:23	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/19/14 02:23	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/19/14 02:23	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/19/14 02:23	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/19/14 02:23	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/19/14 02:23	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/19/14 02:23	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/19/14 02:23	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/19/14 02:23	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/19/14 02:23	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/19/14 02:23	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/19/14 02:23	1
Ethylbenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/19/14 02:23	1
Hexane	<1.00		1.00		ug/L			07/19/14 02:23	1
Isopropylbenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/19/14 02:23	1
Methylene Chloride	<5.00		5.00		ug/L			07/19/14 02:23	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/19/14 02:23	1
Naphthalene	<5.00		5.00		ug/L			07/19/14 02:23	1
N-Propylbenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
Styrene	<1.00		1.00		ug/L			07/19/14 02:23	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/19/14 02:23	1

Client Sample ID: MW-25D

Lab Sample ID: 310-35091-2

Date Collected: 07/17/14 15:40

Matrix: Ground Water

Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/19/14 02:23	1
Tetrachloroethene	<1.00		1.00		ug/L			07/19/14 02:23	1
Toluene	<1.00		1.00		ug/L			07/19/14 02:23	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/19/14 02:23	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/19/14 02:23	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/19/14 02:23	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/19/14 02:23	1
Trichloroethene	**10.2**		1.00		ug/L			07/19/14 02:23	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/19/14 02:23	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/19/14 02:23	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/19/14 02:23	1
Vinyl chloride	<1.00		1.00		ug/L			07/19/14 02:23	1
Xylenes, Total	<3.00		3.00		ug/L			07/19/14 02:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*75 - 120*		*07/19/14 02:23*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*07/19/14 02:23*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*07/19/14 02:23*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**25.4**		5.00		mg/L			07/22/14 11:12	5
Chloride	**5.15**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.116**		0.100		mg/L		07/21/14 08:21	07/21/14 18:51	1
Manganese	**0.208**		0.0100		mg/L		07/21/14 08:21	07/21/14 18:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.61**		1.00		mg/L			07/22/14 15:50	1
Nitrite as N	<0.100		0.100		mg/L			07/18/14 13:50	1
Nitrate as N	**0.115**		0.100		mg/L			07/18/14 13:52	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-26D

Date Collected: 07/17/14 15:10
Date Received: 07/18/14 09:30

Lab Sample ID: 310-35091-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/19/14 02:48	1
Benzene	<0.500		0.500		ug/L			07/19/14 02:48	1
Bromobenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
Bromochloromethane	<5.00		5.00		ug/L			07/19/14 02:48	1
Bromodichloromethane	<1.00		1.00		ug/L			07/19/14 02:48	1
Bromoform	<5.00		5.00		ug/L			07/19/14 02:48	1
Bromomethane	<4.00		4.00		ug/L			07/19/14 02:48	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/19/14 02:48	1
n-Butylbenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
Carbon disulfide	<1.00		1.00		ug/L			07/19/14 02:48	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/19/14 02:48	1
Chlorobenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/19/14 02:48	1
Chloroethane	<4.00		4.00		ug/L			07/19/14 02:48	1
Chloroform	<1.00		1.00		ug/L			07/19/14 02:48	1
Chloromethane	<3.00		3.00		ug/L			07/19/14 02:48	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/19/14 02:48	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/19/14 02:48	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/19/14 02:48	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/19/14 02:48	1
Dibromomethane	<1.00		1.00		ug/L			07/19/14 02:48	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/19/14 02:48	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/19/14 02:48	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/19/14 02:48	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/19/14 02:48	1
cis-1,2-Dichloroethene	**13.7**		1.00		ug/L			07/19/14 02:48	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/19/14 02:48	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/19/14 02:48	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/19/14 02:48	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/19/14 02:48	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/19/14 02:48	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/19/14 02:48	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/19/14 02:48	1
Ethylbenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/19/14 02:48	1
Hexane	<1.00		1.00		ug/L			07/19/14 02:48	1
Isopropylbenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/19/14 02:48	1
Methylene Chloride	<5.00		5.00		ug/L			07/19/14 02:48	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/19/14 02:48	1
Naphthalene	<5.00		5.00		ug/L			07/19/14 02:48	1
N-Propylbenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
Styrene	<1.00		1.00		ug/L			07/19/14 02:48	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/19/14 02:48	1

Client Sample ID: MW-26D

Lab Sample ID: 310-35091-3

Date Collected: 07/17/14 15:10

Matrix: Ground Water

Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/19/14 02:48	1
Tetrachloroethene	<1.00		1.00		ug/L			07/19/14 02:48	1
Toluene	<1.00		1.00		ug/L			07/19/14 02:48	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/19/14 02:48	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/19/14 02:48	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/19/14 02:48	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/19/14 02:48	1
Trichloroethene	**51.5**		1.00		ug/L			07/19/14 02:48	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/19/14 02:48	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/19/14 02:48	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/19/14 02:48	1
Vinyl chloride	<1.00		1.00		ug/L			07/19/14 02:48	1
Xylenes, Total	<3.00		3.00		ug/L			07/19/14 02:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*		*07/19/14 02:48*	*1*
Dibromofluoromethane (Surr)	*118*		*75 - 120*		*07/19/14 02:48*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*07/19/14 02:48*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**43.2**		5.00		mg/L			07/22/14 11:12	5
Chloride	**11.0**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/21/14 08:21	07/21/14 19:03	1
Manganese	**0.0885**		0.0100		mg/L		07/21/14 08:21	07/21/14 19:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.75**		1.00		mg/L			07/22/14 16:04	1
Nitrite as N	<0.100		0.100		mg/L			07/18/14 13:50	1
Nitrate as N	**0.425**		0.100		mg/L			07/18/14 13:54	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-31

Lab Sample ID: 310-35091-4

Date Collected: 07/17/14 14:30
Matrix: Ground Water
Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			07/19/14 03:14	100
Benzene	<50.0		50.0		ug/L			07/19/14 03:14	100
Bromobenzene	<100		100		ug/L			07/19/14 03:14	100
Bromochloromethane	<500		500		ug/L			07/19/14 03:14	100
Bromodichloromethane	<100		100		ug/L			07/19/14 03:14	100
Bromoform	<500		500		ug/L			07/19/14 03:14	100
Bromomethane	<400		400		ug/L			07/19/14 03:14	100
2-Butanone (MEK)	<1000		1000		ug/L			07/19/14 03:14	100
n-Butylbenzene	<100		100		ug/L			07/19/14 03:14	100
sec-Butylbenzene	<100		100		ug/L			07/19/14 03:14	100
tert-Butylbenzene	<100		100		ug/L			07/19/14 03:14	100
Carbon disulfide	<100		100		ug/L			07/19/14 03:14	100
Carbon tetrachloride	<200		200		ug/L			07/19/14 03:14	100
Chlorobenzene	<100		100		ug/L			07/19/14 03:14	100
Chlorodibromomethane	<500		500		ug/L			07/19/14 03:14	100
Chloroethane	<400		400		ug/L			07/19/14 03:14	100
Chloroform	<100		100		ug/L			07/19/14 03:14	100
Chloromethane	<300		300		ug/L			07/19/14 03:14	100
2-Chlorotoluene	<100		100		ug/L			07/19/14 03:14	100
4-Chlorotoluene	<100		100		ug/L			07/19/14 03:14	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			07/19/14 03:14	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			07/19/14 03:14	100
Dibromomethane	<100		100		ug/L			07/19/14 03:14	100
1,2-Dichlorobenzene	<100		100		ug/L			07/19/14 03:14	100
1,3-Dichlorobenzene	<100		100		ug/L			07/19/14 03:14	100
1,4-Dichlorobenzene	<100		100		ug/L			07/19/14 03:14	100
Dichlorodifluoromethane	<300		300		ug/L			07/19/14 03:14	100
1,1-Dichloroethane	<100		100		ug/L			07/19/14 03:14	100
1,2-Dichloroethane	<100		100		ug/L			07/19/14 03:14	100
1,1-Dichloroethene	<200		200		ug/L			07/19/14 03:14	100
cis-1,2-Dichloroethene	**6780**		100		ug/L			07/19/14 03:14	100
trans-1,2-Dichloroethene	<100		100		ug/L			07/19/14 03:14	100
1,2-Dichloropropane	<100		100		ug/L			07/19/14 03:14	100
1,3-Dichloropropane	<100		100		ug/L			07/19/14 03:14	100
2,2-Dichloropropane	<400		400		ug/L			07/19/14 03:14	100
1,1-Dichloropropene	<100		100		ug/L			07/19/14 03:14	100
cis-1,3-Dichloropropene	<500		500		ug/L			07/19/14 03:14	100
trans-1,3-Dichloropropene	<500		500		ug/L			07/19/14 03:14	100
Ethylbenzene	<100		100		ug/L			07/19/14 03:14	100
Hexachlorobutadiene	<500		500		ug/L			07/19/14 03:14	100
Hexane	<100		100		ug/L			07/19/14 03:14	100
Isopropylbenzene	<100		100		ug/L			07/19/14 03:14	100
p-Isopropyltoluene	<100		100		ug/L			07/19/14 03:14	100
Methylene Chloride	<500		500		ug/L			07/19/14 03:14	100
Methyl tert-butyl ether	<100		100		ug/L			07/19/14 03:14	100
Naphthalene	<500		500		ug/L			07/19/14 03:14	100
N-Propylbenzene	<100		100		ug/L			07/19/14 03:14	100
Styrene	<100		100		ug/L			07/19/14 03:14	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			07/19/14 03:14	100

Client Sample ID: MW-31

Lab Sample ID: 310-35091-4

Date Collected: 07/17/14 14:30

Matrix: Ground Water

Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			07/19/14 03:14	100
Tetrachloroethene	<100		100		ug/L			07/19/14 03:14	100
Toluene	<100		100		ug/L			07/19/14 03:14	100
1,2,3-Trichlorobenzene	<500		500		ug/L			07/19/14 03:14	100
1,2,4-Trichlorobenzene	<500		500		ug/L			07/19/14 03:14	100
1,1,1-Trichloroethane	<100		100		ug/L			07/19/14 03:14	100
1,1,2-Trichloroethane	<100		100		ug/L			07/19/14 03:14	100
Trichloroethene	**2710**		100		ug/L			07/19/14 03:14	100
Trichlorofluoromethane	<400		400		ug/L			07/19/14 03:14	100
1,2,3-Trichloropropane	<100		100		ug/L			07/19/14 03:14	100
1,2,4-Trimethylbenzene	<100		100		ug/L			07/19/14 03:14	100
1,3,5-Trimethylbenzene	<100		100		ug/L			07/19/14 03:14	100
Vinyl chloride	<100		100		ug/L			07/19/14 03:14	100
Xylenes, Total	<300		300		ug/L			07/19/14 03:14	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*75 - 120*		*07/19/14 03:14*	*100*
Dibromofluoromethane (Surr)	*105*		*75 - 120*		*07/19/14 03:14*	*100*
Toluene-d8 (Surr)	*97*		*80 - 120*		*07/19/14 03:14*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**178**		5.00		mg/L			07/22/14 11:12	5
Chloride	**43.8**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/21/14 08:21	07/21/14 19:14	1
Manganese	**0.0975**		0.0100		mg/L		07/21/14 08:21	07/21/14 19:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.01**		1.00		mg/L			07/22/14 16:59	1
Nitrite as N	<0.100		0.100		mg/L			07/18/14 13:50	1
Nitrate as N	<0.100		0.100		mg/L			07/18/14 13:56	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-43D

Date Collected: 07/17/14 08:15
Date Received: 07/18/14 09:30

Lab Sample ID: 310-35091-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/19/14 03:39	1
Benzene	<0.500		0.500		ug/L			07/19/14 03:39	1
Bromobenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
Bromochloromethane	<5.00		5.00		ug/L			07/19/14 03:39	1
Bromodichloromethane	<1.00		1.00		ug/L			07/19/14 03:39	1
Bromoform	<5.00		5.00		ug/L			07/19/14 03:39	1
Bromomethane	<4.00		4.00		ug/L			07/19/14 03:39	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/19/14 03:39	1
n-Butylbenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
Carbon disulfide	<1.00		1.00		ug/L			07/19/14 03:39	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/19/14 03:39	1
Chlorobenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/19/14 03:39	1
Chloroethane	<4.00		4.00		ug/L			07/19/14 03:39	1
Chloroform	<1.00		1.00		ug/L			07/19/14 03:39	1
Chloromethane	<3.00		3.00		ug/L			07/19/14 03:39	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/19/14 03:39	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/19/14 03:39	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/19/14 03:39	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/19/14 03:39	1
Dibromomethane	<1.00		1.00		ug/L			07/19/14 03:39	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/19/14 03:39	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/19/14 03:39	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/19/14 03:39	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/19/14 03:39	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/19/14 03:39	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/19/14 03:39	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/19/14 03:39	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/19/14 03:39	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/19/14 03:39	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/19/14 03:39	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/19/14 03:39	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/19/14 03:39	1
Ethylbenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/19/14 03:39	1
Hexane	<1.00		1.00		ug/L			07/19/14 03:39	1
Isopropylbenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/19/14 03:39	1
Methylene Chloride	<5.00		5.00		ug/L			07/19/14 03:39	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/19/14 03:39	1
Naphthalene	<5.00		5.00		ug/L			07/19/14 03:39	1
N-Propylbenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
Styrene	<1.00		1.00		ug/L			07/19/14 03:39	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/19/14 03:39	1

Client Sample ID: MW-43D

Lab Sample ID: 310-35091-5

Date Collected: 07/17/14 08:15

Matrix: Ground Water

Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/19/14 03:39	1
Tetrachloroethene	<1.00		1.00		ug/L			07/19/14 03:39	1
Toluene	<1.00		1.00		ug/L			07/19/14 03:39	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/19/14 03:39	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/19/14 03:39	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/19/14 03:39	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/19/14 03:39	1
Trichloroethene	<1.00		1.00		ug/L			07/19/14 03:39	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/19/14 03:39	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/19/14 03:39	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/19/14 03:39	1
Vinyl chloride	<1.00		1.00		ug/L			07/19/14 03:39	1
Xylenes, Total	<3.00		3.00		ug/L			07/19/14 03:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*		*07/19/14 03:39*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*07/19/14 03:39*	*1*
Toluene-d8 (Surr)	*111*		*80 - 120*		*07/19/14 03:39*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**21.1**		5.00		mg/L			07/22/14 11:12	5
Chloride	**12.3**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/21/14 08:21	07/21/14 19:16	1
Manganese	**0.210**		0.0100		mg/L		07/21/14 08:21	07/21/14 19:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.90**		1.00		mg/L			07/22/14 17:14	1
Nitrite as N	<0.100		0.100		mg/L			07/18/14 13:50	1
Nitrate as N	**0.288**		0.100		mg/L			07/18/14 14:01	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-46

Date Collected: 07/17/14 12:40
Date Received: 07/18/14 09:30

Lab Sample ID: 310-35091-6

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<100		100		ug/L			07/19/14 04:04	10
Benzene	<5.00		5.00		ug/L			07/19/14 04:04	10
Bromobenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
Bromochloromethane	<50.0		50.0		ug/L			07/19/14 04:04	10
Bromodichloromethane	<10.0		10.0		ug/L			07/19/14 04:04	10
Bromoform	<50.0		50.0		ug/L			07/19/14 04:04	10
Bromomethane	<40.0		40.0		ug/L			07/19/14 04:04	10
2-Butanone (MEK)	<100		100		ug/L			07/19/14 04:04	10
n-Butylbenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
sec-Butylbenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
tert-Butylbenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
Carbon disulfide	<10.0		10.0		ug/L			07/19/14 04:04	10
Carbon tetrachloride	<20.0		20.0		ug/L			07/19/14 04:04	10
Chlorobenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
Chlorodibromomethane	<50.0		50.0		ug/L			07/19/14 04:04	10
Chloroethane	<40.0		40.0		ug/L			07/19/14 04:04	10
Chloroform	<10.0		10.0		ug/L			07/19/14 04:04	10
Chloromethane	<30.0		30.0		ug/L			07/19/14 04:04	10
2-Chlorotoluene	<10.0		10.0		ug/L			07/19/14 04:04	10
4-Chlorotoluene	<10.0		10.0		ug/L			07/19/14 04:04	10
1,2-Dibromo-3-Chloropropane	<100		100		ug/L			07/19/14 04:04	10
1,2-Dibromoethane (EDB)	<100		100		ug/L			07/19/14 04:04	10
Dibromomethane	<10.0		10.0		ug/L			07/19/14 04:04	10
1,2-Dichlorobenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
1,3-Dichlorobenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
1,4-Dichlorobenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
Dichlorodifluoromethane	<30.0		30.0		ug/L			07/19/14 04:04	10
1,1-Dichloroethane	<10.0		10.0		ug/L			07/19/14 04:04	10
1,2-Dichloroethane	<10.0		10.0		ug/L			07/19/14 04:04	10
1,1-Dichloroethene	<20.0		20.0		ug/L			07/19/14 04:04	10
cis-1,2-Dichloroethene	**359**		10.0		ug/L			07/19/14 04:04	10
trans-1,2-Dichloroethene	<10.0		10.0		ug/L			07/19/14 04:04	10
1,2-Dichloropropane	<10.0		10.0		ug/L			07/19/14 04:04	10
1,3-Dichloropropane	<10.0		10.0		ug/L			07/19/14 04:04	10
2,2-Dichloropropane	<40.0		40.0		ug/L			07/19/14 04:04	10
1,1-Dichloropropene	<10.0		10.0		ug/L			07/19/14 04:04	10
cis-1,3-Dichloropropene	<50.0		50.0		ug/L			07/19/14 04:04	10
trans-1,3-Dichloropropene	<50.0		50.0		ug/L			07/19/14 04:04	10
Ethylbenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
Hexachlorobutadiene	<50.0		50.0		ug/L			07/19/14 04:04	10
Hexane	<10.0		10.0		ug/L			07/19/14 04:04	10
Isopropylbenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
p-Isopropyltoluene	<10.0		10.0		ug/L			07/19/14 04:04	10
Methylene Chloride	<50.0		50.0		ug/L			07/19/14 04:04	10
Methyl tert-butyl ether	<10.0		10.0		ug/L			07/19/14 04:04	10
Naphthalene	<50.0		50.0		ug/L			07/19/14 04:04	10
N-Propylbenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
Styrene	<10.0		10.0		ug/L			07/19/14 04:04	10
1,1,1,2-Tetrachloroethane	<10.0		10.0		ug/L			07/19/14 04:04	10

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-46

Lab Sample ID: 310-35091-6

Date Collected: 07/17/14 12:40
Matrix: Ground Water
Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<10.0		10.0		ug/L			07/19/14 04:04	10
Tetrachloroethene	**11.5**		10.0		ug/L			07/19/14 04:04	10
Toluene	<10.0		10.0		ug/L			07/19/14 04:04	10
1,2,3-Trichlorobenzene	<50.0		50.0		ug/L			07/19/14 04:04	10
1,2,4-Trichlorobenzene	<50.0		50.0		ug/L			07/19/14 04:04	10
1,1,1-Trichloroethane	<10.0		10.0		ug/L			07/19/14 04:04	10
1,1,2-Trichloroethane	<10.0		10.0		ug/L			07/19/14 04:04	10
Trichloroethene	**21000**		100		ug/L			07/21/14 09:37	100
Trichlorofluoromethane	<40.0		40.0		ug/L			07/19/14 04:04	10
1,2,3-Trichloropropane	<10.0		10.0		ug/L			07/19/14 04:04	10
1,2,4-Trimethylbenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
1,3,5-Trimethylbenzene	<10.0		10.0		ug/L			07/19/14 04:04	10
Vinyl chloride	<10.0		10.0		ug/L			07/19/14 04:04	10
Xylenes, Total	<30.0		30.0		ug/L			07/19/14 04:04	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*75 - 120*		*07/19/14 04:04*	*10*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*07/21/14 09:37*	*100*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*07/19/14 04:04*	*10*
Dibromofluoromethane (Surr)	*114*		*75 - 120*		*07/21/14 09:37*	*100*
Toluene-d8 (Surr)	*109*		*80 - 120*		*07/19/14 04:04*	*10*
Toluene-d8 (Surr)	*96*		*80 - 120*		*07/21/14 09:37*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**25.4**		5.00		mg/L			07/22/14 11:12	5
Chloride	<5.00		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.136**		0.100		mg/L		07/21/14 08:21	07/21/14 19:18	1
Manganese	**0.790**		0.0100		mg/L		07/21/14 08:21	07/21/14 19:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.42**		1.00		mg/L			07/22/14 17:28	1
Nitrite as N	<0.100		0.100		mg/L			07/18/14 13:50	1
Nitrate as N	<0.100		0.100		mg/L			07/18/14 14:03	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-47D

Date Collected: 07/17/14 13:50
Date Received: 07/18/14 09:30

Lab Sample ID: 310-35091-7

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			07/19/14 04:29	100
Benzene	<50.0		50.0		ug/L			07/19/14 04:29	100
Bromobenzene	<100		100		ug/L			07/19/14 04:29	100
Bromochloromethane	<500		500		ug/L			07/19/14 04:29	100
Bromodichloromethane	<100		100		ug/L			07/19/14 04:29	100
Bromoform	<500		500		ug/L			07/19/14 04:29	100
Bromomethane	<400		400		ug/L			07/19/14 04:29	100
2-Butanone (MEK)	<1000		1000		ug/L			07/19/14 04:29	100
n-Butylbenzene	<100		100		ug/L			07/19/14 04:29	100
sec-Butylbenzene	<100		100		ug/L			07/19/14 04:29	100
tert-Butylbenzene	<100		100		ug/L			07/19/14 04:29	100
Carbon disulfide	<100		100		ug/L			07/19/14 04:29	100
Carbon tetrachloride	<200		200		ug/L			07/19/14 04:29	100
Chlorobenzene	<100		100		ug/L			07/19/14 04:29	100
Chlorodibromomethane	<500		500		ug/L			07/19/14 04:29	100
Chloroethane	<400		400		ug/L			07/19/14 04:29	100
Chloroform	<100		100		ug/L			07/19/14 04:29	100
Chloromethane	<300		300		ug/L			07/19/14 04:29	100
2-Chlorotoluene	<100		100		ug/L			07/19/14 04:29	100
4-Chlorotoluene	<100		100		ug/L			07/19/14 04:29	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			07/19/14 04:29	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			07/19/14 04:29	100
Dibromomethane	<100		100		ug/L			07/19/14 04:29	100
1,2-Dichlorobenzene	<100		100		ug/L			07/19/14 04:29	100
1,3-Dichlorobenzene	<100		100		ug/L			07/19/14 04:29	100
1,4-Dichlorobenzene	<100		100		ug/L			07/19/14 04:29	100
Dichlorodifluoromethane	<300		300		ug/L			07/19/14 04:29	100
1,1-Dichloroethane	<100		100		ug/L			07/19/14 04:29	100
1,2-Dichloroethane	<100		100		ug/L			07/19/14 04:29	100
1,1-Dichloroethene	<200		200		ug/L			07/19/14 04:29	100
cis-1,2-Dichloroethene	**20900**		100		ug/L			07/19/14 04:29	100
trans-1,2-Dichloroethene	<100		100		ug/L			07/19/14 04:29	100
1,2-Dichloropropane	<100		100		ug/L			07/19/14 04:29	100
1,3-Dichloropropane	<100		100		ug/L			07/19/14 04:29	100
2,2-Dichloropropane	<400		400		ug/L			07/19/14 04:29	100
1,1-Dichloropropene	<100		100		ug/L			07/19/14 04:29	100
cis-1,3-Dichloropropene	<500		500		ug/L			07/19/14 04:29	100
trans-1,3-Dichloropropene	<500		500		ug/L			07/19/14 04:29	100
Ethylbenzene	<100		100		ug/L			07/19/14 04:29	100
Hexachlorobutadiene	<500		500		ug/L			07/19/14 04:29	100
Hexane	<100		100		ug/L			07/19/14 04:29	100
Isopropylbenzene	<100		100		ug/L			07/19/14 04:29	100
p-Isopropyltoluene	<100		100		ug/L			07/19/14 04:29	100
Methylene Chloride	<500		500		ug/L			07/19/14 04:29	100
Methyl tert-butyl ether	<100		100		ug/L			07/19/14 04:29	100
Naphthalene	<500		500		ug/L			07/19/14 04:29	100
N-Propylbenzene	<100		100		ug/L			07/19/14 04:29	100
Styrene	<100		100		ug/L			07/19/14 04:29	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			07/19/14 04:29	100

Client Sample ID: MW-47D

Lab Sample ID: 310-35091-7

Date Collected: 07/17/14 13:50

Matrix: Ground Water

Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			07/19/14 04:29	100
Tetrachloroethene	<100		100		ug/L			07/19/14 04:29	100
Toluene	<100		100		ug/L			07/19/14 04:29	100
1,2,3-Trichlorobenzene	<500		500		ug/L			07/19/14 04:29	100
1,2,4-Trichlorobenzene	<500		500		ug/L			07/19/14 04:29	100
1,1,1-Trichloroethane	<100		100		ug/L			07/19/14 04:29	100
1,1,2-Trichloroethane	<100		100		ug/L			07/19/14 04:29	100
Trichloroethene	**25300**		100		ug/L			07/19/14 04:29	100
Trichlorofluoromethane	<400		400		ug/L			07/19/14 04:29	100
1,2,3-Trichloropropane	<100		100		ug/L			07/19/14 04:29	100
1,2,4-Trimethylbenzene	<100		100		ug/L			07/19/14 04:29	100
1,3,5-Trimethylbenzene	<100		100		ug/L			07/19/14 04:29	100
Vinyl chloride	**492**		100		ug/L			07/19/14 04:29	100
Xylenes, Total	<300		300		ug/L			07/19/14 04:29	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*75 - 120*		*07/19/14 04:29*	*100*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*07/19/14 04:29*	*100*
Toluene-d8 (Surr)	*104*		*80 - 120*		*07/19/14 04:29*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**19.8**		5.00		mg/L			07/22/14 11:12	5
Chloride	**144**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.820**		0.100		mg/L		07/21/14 08:21	07/21/14 19:21	1
Manganese	**0.697**		0.0100		mg/L		07/21/14 08:21	07/21/14 19:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.67**		1.00		mg/L			07/22/14 17:44	1
Nitrite as N	<0.100		0.100		mg/L			07/18/14 13:50	1
Nitrate as N	<0.100		0.100		mg/L			07/18/14 14:05	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-57

Date Collected: 07/17/14 09:45
Date Received: 07/18/14 09:30

Lab Sample ID: 310-35091-8

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<100		100		ug/L			07/19/14 04:54	10
Benzene	<5.00		5.00		ug/L			07/19/14 04:54	10
Bromobenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
Bromochloromethane	<50.0		50.0		ug/L			07/19/14 04:54	10
Bromodichloromethane	<10.0		10.0		ug/L			07/19/14 04:54	10
Bromoform	<50.0		50.0		ug/L			07/19/14 04:54	10
Bromomethane	<40.0		40.0		ug/L			07/19/14 04:54	10
2-Butanone (MEK)	<100		100		ug/L			07/19/14 04:54	10
n-Butylbenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
sec-Butylbenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
tert-Butylbenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
Carbon disulfide	<10.0		10.0		ug/L			07/19/14 04:54	10
Carbon tetrachloride	<20.0		20.0		ug/L			07/19/14 04:54	10
Chlorobenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
Chlorodibromomethane	<50.0		50.0		ug/L			07/19/14 04:54	10
Chloroethane	<40.0		40.0		ug/L			07/19/14 04:54	10
Chloroform	<10.0		10.0		ug/L			07/19/14 04:54	10
Chloromethane	<30.0		30.0		ug/L			07/19/14 04:54	10
2-Chlorotoluene	<10.0		10.0		ug/L			07/19/14 04:54	10
4-Chlorotoluene	<10.0		10.0		ug/L			07/19/14 04:54	10
1,2-Dibromo-3-Chloropropane	<100		100		ug/L			07/19/14 04:54	10
1,2-Dibromoethane (EDB)	<100		100		ug/L			07/19/14 04:54	10
Dibromomethane	<10.0		10.0		ug/L			07/19/14 04:54	10
1,2-Dichlorobenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
1,3-Dichlorobenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
1,4-Dichlorobenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
Dichlorodifluoromethane	<30.0		30.0		ug/L			07/19/14 04:54	10
1,1-Dichloroethane	<10.0		10.0		ug/L			07/19/14 04:54	10
1,2-Dichloroethane	<10.0		10.0		ug/L			07/19/14 04:54	10
1,1-Dichloroethene	<20.0		20.0		ug/L			07/19/14 04:54	10
cis-1,2-Dichloroethene	<10.0		10.0		ug/L			07/19/14 04:54	10
trans-1,2-Dichloroethene	<10.0		10.0		ug/L			07/19/14 04:54	10
1,2-Dichloropropane	<10.0		10.0		ug/L			07/19/14 04:54	10
1,3-Dichloropropane	<10.0		10.0		ug/L			07/19/14 04:54	10
2,2-Dichloropropane	<40.0		40.0		ug/L			07/19/14 04:54	10
1,1-Dichloropropene	<10.0		10.0		ug/L			07/19/14 04:54	10
cis-1,3-Dichloropropene	<50.0		50.0		ug/L			07/19/14 04:54	10
trans-1,3-Dichloropropene	<50.0		50.0		ug/L			07/19/14 04:54	10
Ethylbenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
Hexachlorobutadiene	<50.0		50.0		ug/L			07/19/14 04:54	10
Hexane	<10.0		10.0		ug/L			07/19/14 04:54	10
Isopropylbenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
p-Isopropyltoluene	<10.0		10.0		ug/L			07/19/14 04:54	10
Methylene Chloride	<50.0		50.0		ug/L			07/19/14 04:54	10
Methyl tert-butyl ether	<10.0		10.0		ug/L			07/19/14 04:54	10
Naphthalene	<50.0		50.0		ug/L			07/19/14 04:54	10
N-Propylbenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
Styrene	<10.0		10.0		ug/L			07/19/14 04:54	10
1,1,1,2-Tetrachloroethane	<10.0		10.0		ug/L			07/19/14 04:54	10

Client Sample ID: MW-57

Lab Sample ID: 310-35091-8

Date Collected: 07/17/14 09:45

Matrix: Ground Water

Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<10.0		10.0		ug/L			07/19/14 04:54	10
Tetrachloroethene	<10.0		10.0		ug/L			07/19/14 04:54	10
Toluene	<10.0		10.0		ug/L			07/19/14 04:54	10
1,2,3-Trichlorobenzene	<50.0		50.0		ug/L			07/19/14 04:54	10
1,2,4-Trichlorobenzene	<50.0		50.0		ug/L			07/19/14 04:54	10
1,1,1-Trichloroethane	<10.0		10.0		ug/L			07/19/14 04:54	10
1,1,2-Trichloroethane	<10.0		10.0		ug/L			07/19/14 04:54	10
Trichloroethene	**1100**		10.0		ug/L			07/30/14 00:39	10
Trichlorofluoromethane	<40.0		40.0		ug/L			07/19/14 04:54	10
1,2,3-Trichloropropane	<10.0		10.0		ug/L			07/19/14 04:54	10
1,2,4-Trimethylbenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
1,3,5-Trimethylbenzene	<10.0		10.0		ug/L			07/19/14 04:54	10
Vinyl chloride	<10.0		10.0		ug/L			07/19/14 04:54	10
Xylenes, Total	<30.0		30.0		ug/L			07/19/14 04:54	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/19/14 04:54*	*10*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/30/14 00:39*	*10*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*07/19/14 04:54*	*10*
Dibromofluoromethane (Surr)	*94*		*75 - 120*		*07/30/14 00:39*	*10*
Toluene-d8 (Surr)	*124*	*X*	*80 - 120*		*07/19/14 04:54*	*10*
Toluene-d8 (Surr)	*86*		*80 - 120*		*07/30/14 00:39*	*10*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**55.6**		5.00		mg/L			07/22/14 11:12	5
Chloride	**15.6**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.175**		0.100		mg/L		07/21/14 08:21	07/21/14 19:23	1
Manganese	**0.686**		0.0100		mg/L		07/21/14 08:21	07/21/14 19:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.76**		1.00		mg/L			07/22/14 18:01	1
Nitrite as N	<0.100		0.100		mg/L			07/18/14 13:50	1
Nitrate as N	<0.100		0.100		mg/L			07/18/14 14:07	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: Dup-02
Date Collected: 07/17/14 00:00
Date Received: 07/18/14 09:30

Lab Sample ID: 310-35091-9
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<100		100		ug/L			07/19/14 05:19	10
Benzene	<5.00		5.00		ug/L			07/19/14 05:19	10
Bromobenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
Bromochloromethane	<50.0		50.0		ug/L			07/19/14 05:19	10
Bromodichloromethane	<10.0		10.0		ug/L			07/19/14 05:19	10
Bromoform	<50.0		50.0		ug/L			07/19/14 05:19	10
Bromomethane	<40.0		40.0		ug/L			07/19/14 05:19	10
2-Butanone (MEK)	<100		100		ug/L			07/19/14 05:19	10
n-Butylbenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
sec-Butylbenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
tert-Butylbenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
Carbon disulfide	<10.0		10.0		ug/L			07/19/14 05:19	10
Carbon tetrachloride	<20.0		20.0		ug/L			07/19/14 05:19	10
Chlorobenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
Chlorodibromomethane	<50.0		50.0		ug/L			07/19/14 05:19	10
Chloroethane	<40.0		40.0		ug/L			07/19/14 05:19	10
Chloroform	<10.0		10.0		ug/L			07/19/14 05:19	10
Chloromethane	<30.0		30.0		ug/L			07/19/14 05:19	10
2-Chlorotoluene	<10.0		10.0		ug/L			07/19/14 05:19	10
4-Chlorotoluene	<10.0		10.0		ug/L			07/19/14 05:19	10
1,2-Dibromo-3-Chloropropane	<100		100		ug/L			07/19/14 05:19	10
1,2-Dibromoethane (EDB)	<100		100		ug/L			07/19/14 05:19	10
Dibromomethane	<10.0		10.0		ug/L			07/19/14 05:19	10
1,2-Dichlorobenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
1,3-Dichlorobenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
1,4-Dichlorobenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
Dichlorodifluoromethane	<30.0		30.0		ug/L			07/19/14 05:19	10
1,1-Dichloroethane	<10.0		10.0		ug/L			07/19/14 05:19	10
1,2-Dichloroethane	<10.0		10.0		ug/L			07/19/14 05:19	10
1,1-Dichloroethene	<20.0		20.0		ug/L			07/19/14 05:19	10
cis-1,2-Dichloroethene	**74.5**		10.0		ug/L			07/19/14 05:19	10
trans-1,2-Dichloroethene	<10.0		10.0		ug/L			07/19/14 05:19	10
1,2-Dichloropropane	<10.0		10.0		ug/L			07/19/14 05:19	10
1,3-Dichloropropane	<10.0		10.0		ug/L			07/19/14 05:19	10
2,2-Dichloropropane	<40.0		40.0		ug/L			07/19/14 05:19	10
1,1-Dichloropropene	<10.0		10.0		ug/L			07/19/14 05:19	10
cis-1,3-Dichloropropene	<50.0		50.0		ug/L			07/19/14 05:19	10
trans-1,3-Dichloropropene	<50.0		50.0		ug/L			07/19/14 05:19	10
Ethylbenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
Hexachlorobutadiene	<50.0		50.0		ug/L			07/19/14 05:19	10
Hexane	<10.0		10.0		ug/L			07/19/14 05:19	10
Isopropylbenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
p-Isopropyltoluene	<10.0		10.0		ug/L			07/19/14 05:19	10
Methylene Chloride	<50.0		50.0		ug/L			07/19/14 05:19	10
Methyl tert-butyl ether	<10.0		10.0		ug/L			07/19/14 05:19	10
Naphthalene	<50.0		50.0		ug/L			07/19/14 05:19	10
N-Propylbenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
Styrene	<10.0		10.0		ug/L			07/19/14 05:19	10
1,1,1,2-Tetrachloroethane	<10.0		10.0		ug/L			07/19/14 05:19	10

Client Sample ID: Dup-02

Lab Sample ID: 310-35091-9

Date Collected: 07/17/14 00:00

Matrix: Ground Water

Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<10.0		10.0		ug/L			07/19/14 05:19	10
Tetrachloroethene	<10.0		10.0		ug/L			07/19/14 05:19	10
Toluene	<10.0		10.0		ug/L			07/19/14 05:19	10
1,2,3-Trichlorobenzene	<50.0		50.0		ug/L			07/19/14 05:19	10
1,2,4-Trichlorobenzene	<50.0		50.0		ug/L			07/19/14 05:19	10
1,1,1-Trichloroethane	<10.0		10.0		ug/L			07/19/14 05:19	10
1,1,2-Trichloroethane	<10.0		10.0		ug/L			07/19/14 05:19	10
Trichloroethene	**313**		10.0		ug/L			07/19/14 05:19	10
Trichlorofluoromethane	<40.0		40.0		ug/L			07/19/14 05:19	10
1,2,3-Trichloropropane	<10.0		10.0		ug/L			07/19/14 05:19	10
1,2,4-Trimethylbenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
1,3,5-Trimethylbenzene	<10.0		10.0		ug/L			07/19/14 05:19	10
Vinyl chloride	<10.0		10.0		ug/L			07/19/14 05:19	10
Xylenes, Total	<30.0		30.0		ug/L			07/19/14 05:19	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*75 - 120*		*07/19/14 05:19*	*10*
Dibromofluoromethane (Surr)	*110*		*75 - 120*		*07/19/14 05:19*	*10*
Toluene-d8 (Surr)	*110*		*80 - 120*		*07/19/14 05:19*	*10*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**16.8**		5.00		mg/L			07/22/14 11:12	5
Chloride	<5.00		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.252**		0.100		mg/L		07/21/14 08:21	07/21/14 19:25	1
Manganese	**0.0433**		0.0100		mg/L		07/21/14 08:21	07/21/14 19:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.97**		1.00		mg/L			07/22/14 18:15	1
Nitrite as N	<0.100		0.100		mg/L			07/18/14 13:50	1
Nitrate as N	**0.379**		0.100		mg/L			07/18/14 14:09	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-35091-10

Date Collected: 07/17/14 00:00

Matrix: Water

Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/18/14 23:28	1
Benzene	<0.500		0.500		ug/L			07/18/14 23:28	1
Bromobenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
Bromochloromethane	<5.00		5.00		ug/L			07/18/14 23:28	1
Bromodichloromethane	<1.00		1.00		ug/L			07/18/14 23:28	1
Bromoform	<5.00		5.00		ug/L			07/18/14 23:28	1
Bromomethane	<4.00		4.00		ug/L			07/18/14 23:28	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/14 23:28	1
n-Butylbenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
Carbon disulfide	<1.00		1.00		ug/L			07/18/14 23:28	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/18/14 23:28	1
Chlorobenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/18/14 23:28	1
Chloroethane	<4.00		4.00		ug/L			07/18/14 23:28	1
Chloroform	<1.00		1.00		ug/L			07/18/14 23:28	1
Chloromethane	<3.00		3.00		ug/L			07/18/14 23:28	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 23:28	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 23:28	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/18/14 23:28	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/18/14 23:28	1
Dibromomethane	<1.00		1.00		ug/L			07/18/14 23:28	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/18/14 23:28	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/18/14 23:28	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/18/14 23:28	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/18/14 23:28	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 23:28	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 23:28	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/18/14 23:28	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/18/14 23:28	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/18/14 23:28	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/18/14 23:28	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 23:28	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 23:28	1
Ethylbenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/18/14 23:28	1
Hexane	<1.00		1.00		ug/L			07/18/14 23:28	1
Isopropylbenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/18/14 23:28	1
Methylene Chloride	<5.00		5.00		ug/L			07/18/14 23:28	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/18/14 23:28	1
Naphthalene	<5.00		5.00		ug/L			07/18/14 23:28	1
N-Propylbenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
Styrene	<1.00		1.00		ug/L			07/18/14 23:28	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 23:28	1

Client Sample ID: Trip Blank

Lab Sample ID: 310-35091-10

Date Collected: 07/17/14 00:00

Matrix: Water

Date Received: 07/18/14 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 23:28	1
Tetrachloroethene	<1.00		1.00		ug/L			07/18/14 23:28	1
Toluene	<1.00		1.00		ug/L			07/18/14 23:28	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 23:28	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 23:28	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/18/14 23:28	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/18/14 23:28	1
Trichloroethene	<1.00		1.00		ug/L			07/18/14 23:28	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/18/14 23:28	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/18/14 23:28	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 23:28	1
Vinyl chloride	<1.00		1.00		ug/L			07/18/14 23:28	1
Xylenes, Total	<3.00		3.00		ug/L			07/18/14 23:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*		*07/18/14 23:28*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 120*		*07/18/14 23:28*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*07/18/14 23:28*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
*	LCS or LCSD exceeds the control limits

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-35091-1	MW-25S	103	107	103
310-35091-2	MW-25D	94	107	107
310-35091-3	MW-26D	102	118	108
310-35091-4	MW-31	109	105	97
310-35091-5	MW-43D	106	100	111
310-35091-6	MW-46	92	101	109
310-35091-6	MW-46	98	114	96
310-35091-7	MW-47D	105	102	104
310-35091-8	MW-57	103	99	124 X
310-35091-8	MW-57	103	94	86
310-35091-9	Dup-02	110	110	110

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-35091-10	Trip Blank	96	109	102
LCS 310-54845/4	Lab Control Sample	102	107	108
LCS 310-54969/4	Lab Control Sample	98	115	95
LCS 310-55897/6	Lab Control Sample	101	102	86
LCSD 310-55897/7	Lab Control Sample Dup	100	102	88
MB 310-54845/7	Method Blank	107	121 X	106
MB 310-54969/7	Method Blank	103	115	95
MB 310-55897/5	Method Blank	100	92	87

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-54845/7
Matrix: Water
Analysis Batch: 54845

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/18/14 23:03	1
Benzene	<0.500		0.500		ug/L			07/18/14 23:03	1
Bromobenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
Bromochloromethane	<5.00		5.00		ug/L			07/18/14 23:03	1
Bromodichloromethane	<1.00		1.00		ug/L			07/18/14 23:03	1
Bromoform	<5.00		5.00		ug/L			07/18/14 23:03	1
Bromomethane	<4.00		4.00		ug/L			07/18/14 23:03	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/14 23:03	1
n-Butylbenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
Carbon disulfide	<1.00		1.00		ug/L			07/18/14 23:03	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/18/14 23:03	1
Chlorobenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/18/14 23:03	1
Chloroethane	<4.00		4.00		ug/L			07/18/14 23:03	1
Chloroform	<1.00		1.00		ug/L			07/18/14 23:03	1
Chloromethane	<3.00		3.00		ug/L			07/18/14 23:03	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 23:03	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/18/14 23:03	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/18/14 23:03	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/18/14 23:03	1
Dibromomethane	<1.00		1.00		ug/L			07/18/14 23:03	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/18/14 23:03	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/18/14 23:03	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/18/14 23:03	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/18/14 23:03	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 23:03	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/18/14 23:03	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/18/14 23:03	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/18/14 23:03	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/18/14 23:03	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/18/14 23:03	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 23:03	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/18/14 23:03	1
Ethylbenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/18/14 23:03	1
Hexane	<1.00		1.00		ug/L			07/18/14 23:03	1
Isopropylbenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/18/14 23:03	1
Methylene Chloride	<5.00		5.00		ug/L			07/18/14 23:03	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/18/14 23:03	1
Naphthalene	<5.00		5.00		ug/L			07/18/14 23:03	1
N-Propylbenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
Styrene	<1.00		1.00		ug/L			07/18/14 23:03	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-54845/7
Matrix: Water
Analysis Batch: 54845

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 23:03	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/18/14 23:03	1
Tetrachloroethene	<1.00		1.00		ug/L			07/18/14 23:03	1
Toluene	<1.00		1.00		ug/L			07/18/14 23:03	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 23:03	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/18/14 23:03	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/18/14 23:03	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/18/14 23:03	1
Trichloroethene	<1.00		1.00		ug/L			07/18/14 23:03	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/18/14 23:03	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/18/14 23:03	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/18/14 23:03	1
Vinyl chloride	<1.00		1.00		ug/L			07/18/14 23:03	1
Xylenes, Total	<3.00		3.00		ug/L			07/18/14 23:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*75 - 120*		*07/18/14 23:03*	*1*
Dibromofluoromethane (Surr)	*121*	*X*	*75 - 120*		*07/18/14 23:03*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*07/18/14 23:03*	*1*

Lab Sample ID: LCS 310-54845/4
Matrix: Water
Analysis Batch: 54845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	50.0	55.37		ug/L		111	60 - 150
Benzene	25.0	20.03		ug/L		80	70 - 130
Bromobenzene	25.0	25.95		ug/L		104	75 - 130
Bromochloromethane	25.0	25.52		ug/L		102	65 - 145
Bromodichloromethane	25.0	23.81		ug/L		95	60 - 130
Bromoform	25.0	25.28		ug/L		101	30 - 125
Bromomethane	25.0	27.27		ug/L		109	35 - 130
2-Butanone (MEK)	50.0	58.41		ug/L		117	55 - 140
n-Butylbenzene	25.0	27.54		ug/L		110	55 - 135
sec-Butylbenzene	25.0	26.21		ug/L		105	65 - 135
tert-Butylbenzene	25.0	25.65		ug/L		103	60 - 135
Carbon disulfide	25.0	23.58		ug/L		94	40 - 130
Carbon tetrachloride	25.0	24.94		ug/L		100	55 - 130
Chlorobenzene	25.0	25.25		ug/L		101	75 - 125
Chlorodibromomethane	25.0	22.99		ug/L		92	45 - 125
Chloroethane	25.0	27.77		ug/L		111	55 - 135
Chloroform	25.0	24.83		ug/L		99	70 - 125
Chloromethane	25.0	16.15		ug/L		65	30 - 125
2-Chlorotoluene	25.0	25.24		ug/L		101	75 - 135
4-Chlorotoluene	25.0	26.14		ug/L		105	70 - 140
1,2-Dibromo-3-Chloropropane	25.0	28.07		ug/L		112	35 - 130
1,2-Dibromoethane (EDB)	25.0	23.00		ug/L		92	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-54845/4
Matrix: Water
Analysis Batch: 54845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	25.0	23.42		ug/L		94	75 - 130
1,2-Dichlorobenzene	25.0	26.92		ug/L		108	65 - 135
1,3-Dichlorobenzene	25.0	25.39		ug/L		102	70 - 130
1,4-Dichlorobenzene	25.0	28.59		ug/L		114	60 - 140
Dichlorodifluoromethane	25.0	23.23		ug/L		93	35 - 130
1,1-Dichloroethane	25.0	27.77		ug/L		111	60 - 130
1,2-Dichloroethane	25.0	25.42		ug/L		102	65 - 140
1,1-Dichloroethene	25.0	26.09		ug/L		104	60 - 135
cis-1,2-Dichloroethene	25.0	26.64		ug/L		107	70 - 135
trans-1,2-Dichloroethene	25.0	25.28		ug/L		101	60 - 145
1,2-Dichloropropane	25.0	20.33		ug/L		81	65 - 130
1,3-Dichloropropane	25.0	21.96		ug/L		88	75 - 125
2,2-Dichloropropane	25.0	27.35		ug/L		109	25 - 120
1,1-Dichloropropene	25.0	21.63		ug/L		87	60 - 140
cis-1,3-Dichloropropene	25.0	22.26		ug/L		89	30 - 120
trans-1,3-Dichloropropene	25.0	22.87		ug/L		91	35 - 120
Ethylbenzene	25.0	24.99		ug/L		100	70 - 130
Hexachlorobutadiene	25.0	31.05		ug/L		124	60 - 135
Hexane	25.0	22.92		ug/L		92	40 - 135
Isopropylbenzene	25.0	26.25		ug/L		105	70 - 125
p-Isopropyltoluene	25.0	27.21		ug/L		109	60 - 140
Methylene Chloride	25.0	24.05		ug/L		96	55 - 145
Methyl tert-butyl ether	25.0	27.99		ug/L		112	50 - 135
Naphthalene	25.0	29.23		ug/L		117	40 - 135
N-Propylbenzene	25.0	25.43		ug/L		102	70 - 135
Styrene	25.0	24.93		ug/L		100	70 - 130
1,1,1,2-Tetrachloroethane	25.0	27.27		ug/L		109	65 - 120
1,1,2,2-Tetrachloroethane	25.0	25.37		ug/L		101	65 - 130
Tetrachloroethene	25.0	23.31		ug/L		93	70 - 135
Toluene	25.0	20.63		ug/L		83	70 - 135
1,2,3-Trichlorobenzene	25.0	29.67		ug/L		119	55 - 130
1,2,4-Trichlorobenzene	25.0	27.40		ug/L		110	40 - 135
1,1,1-Trichloroethane	25.0	26.65		ug/L		107	60 - 125
1,1,2-Trichloroethane	25.0	22.48		ug/L		90	75 - 125
Trichloroethene	25.0	21.62		ug/L		86	70 - 130
Trichlorofluoromethane	25.0	30.06		ug/L		120	55 - 145
1,2,3-Trichloropropane	25.0	25.80		ug/L		103	60 - 150
1,2,4-Trimethylbenzene	25.0	26.35		ug/L		105	70 - 140
1,3,5-Trimethylbenzene	25.0	27.12		ug/L		108	70 - 140
Vinyl chloride	25.0	22.31		ug/L		89	45 - 135
Xylenes, Total	50.0	49.97		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*
Dibromofluoromethane (Surr)	*107*		*75 - 120*
Toluene-d8 (Surr)	*108*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-54969/7
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/21/14 08:45	1
Benzene	<0.500		0.500		ug/L			07/21/14 08:45	1
Bromobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Bromochloromethane	<5.00		5.00		ug/L			07/21/14 08:45	1
Bromodichloromethane	<1.00		1.00		ug/L			07/21/14 08:45	1
Bromoform	<5.00		5.00		ug/L			07/21/14 08:45	1
Bromomethane	<4.00		4.00		ug/L			07/21/14 08:45	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/21/14 08:45	1
n-Butylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Carbon disulfide	<1.00		1.00		ug/L			07/21/14 08:45	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/21/14 08:45	1
Chlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/21/14 08:45	1
Chloroethane	<4.00		4.00		ug/L			07/21/14 08:45	1
Chloroform	<1.00		1.00		ug/L			07/21/14 08:45	1
Chloromethane	<3.00		3.00		ug/L			07/21/14 08:45	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 08:45	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/21/14 08:45	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/21/14 08:45	1
Dibromomethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/21/14 08:45	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/21/14 08:45	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/21/14 08:45	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/21/14 08:45	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/21/14 08:45	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 08:45	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 08:45	1
Ethylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/21/14 08:45	1
Hexane	<1.00		1.00		ug/L			07/21/14 08:45	1
Isopropylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/21/14 08:45	1
Methylene Chloride	<5.00		5.00		ug/L			07/21/14 08:45	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/21/14 08:45	1
Naphthalene	<5.00		5.00		ug/L			07/21/14 08:45	1
N-Propylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Styrene	<1.00		1.00		ug/L			07/21/14 08:45	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-54969/7
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
Tetrachloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
Toluene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 08:45	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 08:45	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
Trichloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/21/14 08:45	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Vinyl chloride	<1.00		1.00		ug/L			07/21/14 08:45	1
Xylenes, Total	<3.00		3.00		ug/L			07/21/14 08:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/21/14 08:45*	*1*
Dibromofluoromethane (Surr)	*115*		*75 - 120*		*07/21/14 08:45*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*07/21/14 08:45*	*1*

Lab Sample ID: LCS 310-54969/4
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	46.74		ug/L		117	60 - 150
Benzene	20.0	18.97		ug/L		95	70 - 130
Bromobenzene	20.0	18.50		ug/L		93	75 - 130
Bromochloromethane	20.0	19.99		ug/L		100	65 - 145
Bromodichloromethane	20.0	21.21		ug/L		106	60 - 130
Bromoform	20.0	15.88		ug/L		79	30 - 125
Bromomethane	20.0	15.35		ug/L		77	35 - 130
2-Butanone (MEK)	40.0	40.95		ug/L		102	55 - 140
n-Butylbenzene	20.0	18.21		ug/L		91	55 - 135
sec-Butylbenzene	20.0	18.76		ug/L		94	65 - 135
tert-Butylbenzene	20.0	18.75		ug/L		94	60 - 135
Carbon disulfide	20.0	18.56		ug/L		93	40 - 130
Carbon tetrachloride	20.0	23.66		ug/L		118	55 - 130
Chlorobenzene	20.0	18.23		ug/L		91	75 - 125
Chlorodibromomethane	20.0	19.19		ug/L		96	45 - 125
Chloroethane	20.0	23.60		ug/L		118	55 - 135
Chloroform	20.0	21.52		ug/L		108	70 - 125
Chloromethane	20.0	18.28		ug/L		91	30 - 125
2-Chlorotoluene	20.0	18.77		ug/L		94	75 - 135
4-Chlorotoluene	20.0	19.43		ug/L		97	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	19.78		ug/L		99	35 - 130
1,2-Dibromoethane (EDB)	20.0	20.25		ug/L		101	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-54969/4
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	20.17		ug/L		101	75 - 130
1,2-Dichlorobenzene	20.0	17.76		ug/L		89	65 - 135
1,3-Dichlorobenzene	20.0	18.46		ug/L		92	70 - 130
1,4-Dichlorobenzene	20.0	18.00		ug/L		90	60 - 140
Dichlorodifluoromethane	20.0	29.24	*	ug/L		146	35 - 130
1,1-Dichloroethane	20.0	20.11		ug/L		101	60 - 130
1,2-Dichloroethane	20.0	22.99		ug/L		115	65 - 140
1,1-Dichloroethene	20.0	20.73		ug/L		104	60 - 135
cis-1,2-Dichloroethene	20.0	19.54		ug/L		98	70 - 135
trans-1,2-Dichloroethene	20.0	20.06		ug/L		100	60 - 145
1,2-Dichloropropane	20.0	18.56		ug/L		93	65 - 130
1,3-Dichloropropane	20.0	19.44		ug/L		97	75 - 125
2,2-Dichloropropane	20.0	23.57		ug/L		118	25 - 120
1,1-Dichloropropene	20.0	19.14		ug/L		96	60 - 140
cis-1,3-Dichloropropene	20.0	18.06		ug/L		90	30 - 120
trans-1,3-Dichloropropene	20.0	17.23		ug/L		86	35 - 120
Ethylbenzene	20.0	18.88		ug/L		94	70 - 130
Hexachlorobutadiene	20.0	19.61		ug/L		98	60 - 135
Hexane	20.0	20.84		ug/L		104	40 - 135
Isopropylbenzene	20.0	18.70		ug/L		94	70 - 125
p-Isopropyltoluene	20.0	18.91		ug/L		95	60 - 140
Methylene Chloride	20.0	18.85		ug/L		94	55 - 145
Methyl tert-butyl ether	20.0	20.45		ug/L		102	50 - 135
Naphthalene	20.0	15.89		ug/L		79	40 - 135
N-Propylbenzene	20.0	18.68		ug/L		93	70 - 135
Styrene	20.0	18.80		ug/L		94	70 - 130
1,1,1,2-Tetrachloroethane	20.0	19.50		ug/L		97	65 - 120
1,1,2,2-Tetrachloroethane	20.0	17.59		ug/L		88	65 - 130
Tetrachloroethene	20.0	19.45		ug/L		97	70 - 135
Toluene	20.0	18.61		ug/L		93	70 - 135
1,2,3-Trichlorobenzene	20.0	16.72		ug/L		84	55 - 130
1,2,4-Trichlorobenzene	20.0	17.10		ug/L		86	40 - 135
1,1,1-Trichloroethane	20.0	23.18		ug/L		116	60 - 125
1,1,2-Trichloroethane	20.0	19.27		ug/L		96	75 - 125
Trichloroethene	20.0	21.09		ug/L		105	70 - 130
Trichlorofluoromethane	20.0	29.30	*	ug/L		146	55 - 145
1,2,3-Trichloropropane	20.0	19.08		ug/L		95	60 - 150
1,2,4-Trimethylbenzene	20.0	19.33		ug/L		97	70 - 140
1,3,5-Trimethylbenzene	20.0	19.14		ug/L		96	70 - 140
Vinyl chloride	20.0	22.19		ug/L		111	45 - 135
Xylenes, Total	40.0	35.64		ug/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*
Dibromofluoromethane (Surr)	*115*		*75 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-55897/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55897

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00		ug/L			07/29/14 17:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*07/29/14 17:50*	*1*
Dibromofluoromethane (Surr)	*92*		*75 - 120*		*07/29/14 17:50*	*1*
Toluene-d8 (Surr)	*87*		*80 - 120*		*07/29/14 17:50*	*1*

Lab Sample ID: LCS 310-55897/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55897

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	20.0	22.77		ug/L		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*86*		*80 - 120*

Lab Sample ID: LCSD 310-55897/7 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55897

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	20.0	25.18		ug/L		126	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*88*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-55160/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55160

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			07/22/14 11:12	1
Chloride	<1.00		1.00		mg/L			07/22/14 11:12	1

Lab Sample ID: LCS 310-55160/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55160

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.685		mg/L		97	90 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 310-55160/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55160

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			10.0	9.630		mg/L		96	90 - 110		

Lab Sample ID: 310-35091-1 MS — **Client Sample ID: MW-25S**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 55160

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	<5.00		25.0	25.78		mg/L		93	80 - 120		
Chloride	142		25.0	165.9	4	mg/L		97	80 - 120		

Lab Sample ID: 310-35091-1 MSD — **Client Sample ID: MW-25S**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 55160

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	<5.00		25.0	26.28		mg/L		95	80 - 120	2	15
Chloride	142		25.0	168.2	4	mg/L		107	80 - 120	1	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-54986/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55097 — **Prep Batch: 54986**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/21/14 08:21	07/21/14 18:32	1
Manganese	<0.0100		0.0100		mg/L		07/21/14 08:21	07/21/14 18:32	1

Lab Sample ID: LCS 310-54986/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55097 — **Prep Batch: 54986**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron			2.00	1.982		mg/L		99	85 - 110		
Manganese			1.00	1.036		mg/L		104	85 - 115		

Lab Sample ID: 310-35091-2 MS — **Client Sample ID: MW-25D**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 55097 — **Prep Batch: 54986**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron	0.116		2.00	2.009		mg/L		95	75 - 125		
Manganese	0.208		1.00	1.171		mg/L		96	80 - 115		

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 310-35091-2 MSD — **Client Sample ID: MW-25D**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 55097 — **Prep Batch: 54986**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.116		2.00	2.054		mg/L		97	75 - 125	2	20
Manganese	0.208		1.00	1.153		mg/L		95	80 - 115	2	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-55270/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55270

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			07/22/14 13:31	1

Lab Sample ID: LCS 310-55270/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.770		mg/L		96	90 - 110

Lab Sample ID: MB 310-55271/21 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55271

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			07/22/14 20:09	1

Lab Sample ID: LCS 310-55271/22 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55271

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.798		mg/L		96	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-54910/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54910

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			07/18/14 13:50	1

Lab Sample ID: LCS 310-54910/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54910

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.5108		mg/L		102	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite (Continued)

Lab Sample ID: 310-35091-1 MS — **Client Sample ID: MW-25S**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54910

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N	<0.100		0.400	0.4365		mg/L		109	75 - 125		

Lab Sample ID: 310-35091-1 MSD — **Client Sample ID: MW-25S**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54910

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.100		0.400	0.4423		mg/L		110	75 - 125	1	10

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-54908/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			07/18/14 13:39	1

Lab Sample ID: LCS 310-54908/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54908

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			16.8	17.12		mg/L		102	90 - 110		

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

GC/MS VOA

Analysis Batch: 54845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-1	MW-25S	Total/NA	Ground Water	8260C	
310-35091-2	MW-25D	Total/NA	Ground Water	8260C	
310-35091-3	MW-26D	Total/NA	Ground Water	8260C	
310-35091-4	MW-31	Total/NA	Ground Water	8260C	
310-35091-5	MW-43D	Total/NA	Ground Water	8260C	
310-35091-6	MW-46	Total/NA	Ground Water	8260C	
310-35091-7	MW-47D	Total/NA	Ground Water	8260C	
310-35091-8	MW-57	Total/NA	Ground Water	8260C	
310-35091-9	Dup-02	Total/NA	Ground Water	8260C	
310-35091-10	Trip Blank	Total/NA	Water	8260C	
LCS 310-54845/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-54845/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 54969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-6	MW-46	Total/NA	Ground Water	8260C	
LCS 310-54969/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-54969/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 55897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-8	MW-57	Total/NA	Ground Water	8260C	
LCS 310-55897/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 310-55897/7	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 310-55897/5	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 55160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-1	MW-25S	Total/NA	Ground Water	9056A	
310-35091-1 MS	MW-25S	Total/NA	Ground Water	9056A	
310-35091-1 MSD	MW-25S	Total/NA	Ground Water	9056A	
310-35091-2	MW-25D	Total/NA	Ground Water	9056A	
310-35091-3	MW-26D	Total/NA	Ground Water	9056A	
310-35091-4	MW-31	Total/NA	Ground Water	9056A	
310-35091-5	MW-43D	Total/NA	Ground Water	9056A	
310-35091-6	MW-46	Total/NA	Ground Water	9056A	
310-35091-7	MW-47D	Total/NA	Ground Water	9056A	
310-35091-8	MW-57	Total/NA	Ground Water	9056A	
310-35091-9	Dup-02	Total/NA	Ground Water	9056A	
LCS 310-55160/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-55160/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 54986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-1	MW-25S	Total/NA	Ground Water	3010A	
310-35091-2	MW-25D	Total/NA	Ground Water	3010A	

Metals (Continued)

Prep Batch: 54986 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-2 MS	MW-25D	Total/NA	Ground Water	3010A	
310-35091-2 MSD	MW-25D	Total/NA	Ground Water	3010A	
310-35091-3	MW-26D	Total/NA	Ground Water	3010A	
310-35091-4	MW-31	Total/NA	Ground Water	3010A	
310-35091-5	MW-43D	Total/NA	Ground Water	3010A	
310-35091-6	MW-46	Total/NA	Ground Water	3010A	
310-35091-7	MW-47D	Total/NA	Ground Water	3010A	
310-35091-8	MW-57	Total/NA	Ground Water	3010A	
310-35091-9	Dup-02	Total/NA	Ground Water	3010A	
LCS 310-54986/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-54986/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 55097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-1	MW-25S	Total/NA	Ground Water	6010C	54986
310-35091-2	MW-25D	Total/NA	Ground Water	6010C	54986
310-35091-2 MS	MW-25D	Total/NA	Ground Water	6010C	54986
310-35091-2 MSD	MW-25D	Total/NA	Ground Water	6010C	54986
310-35091-3	MW-26D	Total/NA	Ground Water	6010C	54986
310-35091-4	MW-31	Total/NA	Ground Water	6010C	54986
310-35091-5	MW-43D	Total/NA	Ground Water	6010C	54986
310-35091-6	MW-46	Total/NA	Ground Water	6010C	54986
310-35091-7	MW-47D	Total/NA	Ground Water	6010C	54986
310-35091-8	MW-57	Total/NA	Ground Water	6010C	54986
310-35091-9	Dup-02	Total/NA	Ground Water	6010C	54986
LCS 310-54986/2-A	Lab Control Sample	Total/NA	Water	6010C	54986
MB 310-54986/1-A	Method Blank	Total/NA	Water	6010C	54986

General Chemistry

Analysis Batch: 54908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-1	MW-25S	Total/NA	Ground Water	SM 4500 NO3 E	
310-35091-2	MW-25D	Total/NA	Ground Water	SM 4500 NO3 E	
310-35091-3	MW-26D	Total/NA	Ground Water	SM 4500 NO3 E	
310-35091-4	MW-31	Total/NA	Ground Water	SM 4500 NO3 E	
310-35091-5	MW-43D	Total/NA	Ground Water	SM 4500 NO3 E	
310-35091-6	MW-46	Total/NA	Ground Water	SM 4500 NO3 E	
310-35091-7	MW-47D	Total/NA	Ground Water	SM 4500 NO3 E	
310-35091-8	MW-57	Total/NA	Ground Water	SM 4500 NO3 E	
310-35091-9	Dup-02	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-54908/4	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-54908/3	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 54910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-1	MW-25S	Total/NA	Ground Water	SM 4500 NO2 B	
310-35091-1 MS	MW-25S	Total/NA	Ground Water	SM 4500 NO2 B	
310-35091-1 MSD	MW-25S	Total/NA	Ground Water	SM 4500 NO2 B	
310-35091-2	MW-25D	Total/NA	Ground Water	SM 4500 NO2 B	

General Chemistry (Continued)

Analysis Batch: 54910 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-3	MW-26D	Total/NA	Ground Water	SM 4500 NO2 B	
310-35091-4	MW-31	Total/NA	Ground Water	SM 4500 NO2 B	
310-35091-5	MW-43D	Total/NA	Ground Water	SM 4500 NO2 B	
310-35091-6	MW-46	Total/NA	Ground Water	SM 4500 NO2 B	
310-35091-7	MW-47D	Total/NA	Ground Water	SM 4500 NO2 B	
310-35091-8	MW-57	Total/NA	Ground Water	SM 4500 NO2 B	
310-35091-9	Dup-02	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-54910/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-54910/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 55270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-55270/7	Lab Control Sample	Total/NA	Water	9060A	
MB 310-55270/5	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 55271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35091-1	MW-25S	Total/NA	Ground Water	9060A	
310-35091-2	MW-25D	Total/NA	Ground Water	9060A	
310-35091-3	MW-26D	Total/NA	Ground Water	9060A	
310-35091-4	MW-31	Total/NA	Ground Water	9060A	
310-35091-5	MW-43D	Total/NA	Ground Water	9060A	
310-35091-6	MW-46	Total/NA	Ground Water	9060A	
310-35091-7	MW-47D	Total/NA	Ground Water	9060A	
310-35091-8	MW-57	Total/NA	Ground Water	9060A	
310-35091-9	Dup-02	Total/NA	Ground Water	9060A	
LCS 310-55271/22	Lab Control Sample	Total/NA	Water	9060A	
MB 310-55271/21	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-25S — Lab Sample ID: 310-35091-1

Date Collected: 07/17/14 16:10 — **Matrix: Ground Water**
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	54845	07/19/14 01:58	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			54986	07/21/14 08:21	SAV	TAL CF
Total/NA	Analysis	6010C		15	55097	07/21/14 19:12	MRH	TAL CF
Total/NA	Analysis	9060A		80	55271	07/22/14 15:35	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54910	07/18/14 13:50	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54908	07/18/14 13:50	LBB	TAL CF

Client Sample ID: MW-25D — Lab Sample ID: 310-35091-2

Date Collected: 07/17/14 15:40 — **Matrix: Ground Water**
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54845	07/19/14 02:23	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			54986	07/21/14 08:21	SAV	TAL CF
Total/NA	Analysis	6010C		1	55097	07/21/14 18:51	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 15:50	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54910	07/18/14 13:50	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54908	07/18/14 13:52	LBB	TAL CF

Client Sample ID: MW-26D — Lab Sample ID: 310-35091-3

Date Collected: 07/17/14 15:10 — **Matrix: Ground Water**
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54845	07/19/14 02:48	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			54986	07/21/14 08:21	SAV	TAL CF
Total/NA	Analysis	6010C		1	55097	07/21/14 19:03	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 16:04	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54910	07/18/14 13:50	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54908	07/18/14 13:54	LBB	TAL CF

Client Sample ID: MW-31 — Lab Sample ID: 310-35091-4

Date Collected: 07/17/14 14:30 — **Matrix: Ground Water**
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	54845	07/19/14 03:14	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-31

Lab Sample ID: 310-35091-4
Date Collected: 07/17/14 14:30
Matrix: Ground Water
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			54986	07/21/14 08:21	SAV	TAL CF
Total/NA	Analysis	6010C		1	55097	07/21/14 19:14	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 16:59	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54910	07/18/14 13:50	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54908	07/18/14 13:56	LBB	TAL CF

Client Sample ID: MW-43D

Lab Sample ID: 310-35091-5
Date Collected: 07/17/14 08:15
Matrix: Ground Water
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54845	07/19/14 03:39	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			54986	07/21/14 08:21	SAV	TAL CF
Total/NA	Analysis	6010C		1	55097	07/21/14 19:16	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 17:14	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54910	07/18/14 13:50	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54908	07/18/14 14:01	LBB	TAL CF

Client Sample ID: MW-46

Lab Sample ID: 310-35091-6
Date Collected: 07/17/14 12:40
Matrix: Ground Water
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	54969	07/21/14 09:37	SJN	TAL CF
Total/NA	Analysis	8260C		10	54845	07/19/14 04:04	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			54986	07/21/14 08:21	SAV	TAL CF
Total/NA	Analysis	6010C		1	55097	07/21/14 19:18	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 17:28	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54910	07/18/14 13:50	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54908	07/18/14 14:03	LBB	TAL CF

Client Sample ID: MW-47D

Lab Sample ID: 310-35091-7
Date Collected: 07/17/14 13:50
Matrix: Ground Water
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	54845	07/19/14 04:29	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			54986	07/21/14 08:21	SAV	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Client Sample ID: MW-47D — Lab Sample ID: 310-35091-7

Date Collected: 07/17/14 13:50 — **Matrix: Ground Water**
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	55097	07/21/14 19:21	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 17:44	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54910	07/18/14 13:50	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54908	07/18/14 14:05	LBB	TAL CF

Client Sample ID: MW-57 — Lab Sample ID: 310-35091-8

Date Collected: 07/17/14 09:45 — **Matrix: Ground Water**
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	55897	07/30/14 00:39	KNW	TAL CF
Total/NA	Analysis	8260C		10	54845	07/19/14 04:54	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			54986	07/21/14 08:21	SAV	TAL CF
Total/NA	Analysis	6010C		1	55097	07/21/14 19:23	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 18:01	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54910	07/18/14 13:50	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54908	07/18/14 14:07	LBB	TAL CF

Client Sample ID: Dup-02 — Lab Sample ID: 310-35091-9

Date Collected: 07/17/14 00:00 — **Matrix: Ground Water**
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	54845	07/19/14 05:19	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			54986	07/21/14 08:21	SAV	TAL CF
Total/NA	Analysis	6010C		1	55097	07/21/14 19:25	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 18:15	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54910	07/18/14 13:50	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54908	07/18/14 14:09	LBB	TAL CF

Client Sample ID: Trip Blank — Lab Sample ID: 310-35091-10

Date Collected: 07/17/14 00:00 — **Matrix: Water**
Date Received: 07/18/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54845	07/18/14 23:28	SJN	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-14
Georgia	State Program	4	N/A	09-29-14
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14
Oregon	NELAP	10	IA100001	09-29-14
Wisconsin	State Program	5	999917270	08-31-14

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35091-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and T
Cedar Falls Facility

310-35091 Chain of Custody

Client: Golder Assoc Project: Electrolux

City: State:

Date: 7-18-14 Receiver's Initials: CH Time (Delivered): 9:30

Temperature Record:

Cooler ID# (If Applicable): 816

Uncorrected Temp: 1.8 °C

Corrected Temp: 1.6 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other:

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other:
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)*
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

vials
MW 25 D + MW 31 bottles
MW 25 S

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704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Temperature Log Form
Cedar Falls Facility

Client: Golder Assoc. Project: ELECTROLUX

City: _____ State: _____

Date: 7-18-14 Receiver's Initials: CH Time (Delivered): 9:30

Temperature Record:

Cooler ID# (If Applicable): 701

Uncorrected Temp: 0.2 °C

Corrected Temp: 0.0 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Your PO #: 103-87305
Send Report To: James Peace
Invoice To:
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Project Name: Electrolux - Jefferson, IA
Telephone Number: 603-668-0880 Fax: 603-668-1199
Project Number: 103-87305
Sampled by: (Print Name) Andrew Koff
(Signature)
Email Address: Jpeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H2SO4 Plastic (Yellow & White Label)	H2SO4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:Stormwater	Analyze For: 8260 Volatiles	Nitrate, Nitrite	Sulfate, Chloride	TOC	Iron, Manganese	E-mail results	Send QC with report
MW-25S	7/17/14	1610	6	X			X	X	X		X		X		X						X	X	X	X	X	X	X
MW-25D		1540																									
MW-26D		1510																									
MW-31		1430																									
MW-43D		815																									
MW-46		1240																									
MW-47D		1350																									
MW-57		945																									
Dup-02																											
trip blank			3																								

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	7/17/14	1700						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	7/18/14	430						

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-25S	310-35091-B-1	Plastic 250ml - with Sulfuric Acid	<2		
MW-25S	310-35091-C-1	Plastic 250ml - with Nitric Acid	<2		
MW-25D	310-35091-B-2	Plastic 250ml - with Sulfuric Acid	<2		
MW-25D	310-35091-C-2	Plastic 250ml - with Nitric Acid	<2		
MW-26D	310-35091-B-3	Plastic 250ml - with Sulfuric Acid	<2		
MW-26D	310-35091-C-3	Plastic 250ml - with Nitric Acid	<2		
MW-31	310-35091-B-4	Plastic 250ml - with Sulfuric Acid	<2		
MW-31	310-35091-C-4	Plastic 250ml - with Nitric Acid	<2		
MW-43D	310-35091-B-5	Plastic 250ml - with Sulfuric Acid	<2		
MW-43D	310-35091-C-5	Plastic 250ml - with Nitric Acid	<2		
MW-46	310-35091-B-6	Plastic 250ml - with Sulfuric Acid	<2		
MW-46	310-35091-C-6	Plastic 250ml - with Nitric Acid	<2		
MW-47D	310-35091-B-7	Plastic 250ml - with Sulfuric Acid	<2		
MW-47D	310-35091-C-7	Plastic 250ml - with Nitric Acid	<2		
MW-57	310-35091-B-8	Plastic 250ml - with Sulfuric Acid	<2		
MW-57	310-35091-C-8	Plastic 250ml - with Nitric Acid	<2		
Dup-02	310-35091-B-9	Plastic 250ml - with Sulfuric Acid	<2		
Dup-02	310-35091-C-9	Plastic 250ml - with Nitric Acid	<2		

mf 7/18/14

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-35091-1

Login Number: 35091

List Source: TestAmerica Cedar Falls

List Number: 1

Creator: Facciani, Melene K

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-35191-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
7/31/2014 12:24:17 PM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-35191-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-35191-1

Comments
No additional comments.

Receipt
The samples were received on 7/19/2014 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 54969 recovered above the upper control limit for Carbon tetrachloride (22.8 %D), 1,2-Dichloroethane (27.3 %D), and 1,1,1-Trichloroethane (21.2 %D). The LCS associated with this CCV passes using CCV criteria for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-54969/3).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 54969 recovered above the upper control limit for Trichlorofluoromethane (29.1 %D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-54969/3).

Method(s) 8260C: The laboratory control sample (LCS) for batch 54969 recovered outside control limits for the following analytes: Dichlorodifluoromethane and Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 56036 recovered above the upper control limit for Dibromomethane (25.2 %D), Chlorobromomethane (24.5 %D), Dichlorobromomethane (29.1 %D), Benzene (22.1 %D), cis-1,2-Dichloroethene (20.9 %D), 1,3-Dichloropropane (27.2 %D), 1,2-Dichloropropane (26.2 %D), Methyl tert-butyl ether (20.8 %D), and 1,1-Dichloroethane (21 %D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-56036/3).

Method(s) 8260C: The laboratory control sample (LCS) for batch 56036 recovered outside control limits for the following analytes: Dibromomethane, Dichlorobromomethane, Benzene, 1,3-Dichloropropane, Chloroform, Chloromethane, 2,2-Dichloropropane, 2-Butanone, and 1,2-Dichloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-35191-1	MW-19	Ground Water	07/18/14 11:20	07/19/14 09:35
310-35191-2	MW-24	Ground Water	07/18/14 08:10	07/19/14 09:35
310-35191-3	MW-26S	Ground Water	07/18/14 10:10	07/19/14 09:35
310-35191-4	MW-29	Ground Water	07/18/14 11:00	07/19/14 09:35
310-35191-5	MW-53	Ground Water	07/18/14 08:55	07/19/14 09:35
310-35191-6	Trip Blank	Water	07/18/14 00:00	07/19/14 09:35

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-19 — Lab Sample ID: 310-35191-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1800		200		ug/L	100		8260C	Total/NA
cis-1,2-Dichloroethene	372		100		ug/L	100		8260C	Total/NA
Tetrachloroethene	285		100		ug/L	100		8260C	Total/NA
1,1,1-Trichloroethane	3510		100		ug/L	100		8260C	Total/NA
Trichloroethene	124000		1000		ug/L	1000		8260C	Total/NA
Sulfate	70.5		5.00		mg/L	5		9056A	Total/NA
Chloride	23.7		5.00		mg/L	5		9056A	Total/NA
Manganese	0.0134		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	3.92		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-24 — Lab Sample ID: 310-35191-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.43		1.00		ug/L	1		8260C	Total/NA
Sulfate	94.0		5.00		mg/L	5		9056A	Total/NA
Chloride	26.9		5.00		mg/L	5		9056A	Total/NA
Manganese	0.441		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.54		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.102		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-26S — Lab Sample ID: 310-35191-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	792		100		ug/L	100		8260C	Total/NA
Trichloroethene	67200		100		ug/L	100		8260C	Total/NA
Sulfate	48.0		5.00		mg/L	5		9056A	Total/NA
Chloride	63.3		5.00		mg/L	5		9056A	Total/NA
Iron	0.107		0.100		mg/L	1		6010C	Total/NA
Manganese	0.0473		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.19		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	1.28		0.250		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-29 — Lab Sample ID: 310-35191-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	404		200		ug/L	100		8260C	Total/NA
cis-1,2-Dichloroethene	759		100		ug/L	100		8260C	Total/NA
Trichloroethene	98000		100		ug/L	100		8260C	Total/NA
Sulfate	188		5.00		mg/L	5		9056A	Total/NA
Chloride	72.0		5.00		mg/L	5		9056A	Total/NA

Client Sample ID: MW-53 — Lab Sample ID: 310-35191-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	16.7		1.00		ug/L	1		8260C	Total/NA
1,1-Dichloroethene	5.52		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	93.8		1.00		ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	4.99		1.00		ug/L	1		8260C	Total/NA
Tetrachloroethene	7.32		1.00		ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	19.2		1.00		ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-53 (Continued) — Lab Sample ID: 310-35191-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	13.8		1.00		ug/L	1		8260C	Total/NA
Sulfate	36.0		5.00		mg/L	5		9056A	Total/NA
Chloride	33.3		5.00		mg/L	5		9056A	Total/NA
Manganese	0.0105		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	4.50		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.172		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-35191-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-19
Date Collected: 07/18/14 11:20
Date Received: 07/19/14 09:35

Lab Sample ID: 310-35191-1
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			07/21/14 16:28	100
Benzene	<50.0		50.0		ug/L			07/21/14 16:28	100
Bromobenzene	<100		100		ug/L			07/21/14 16:28	100
Bromochloromethane	<500		500		ug/L			07/21/14 16:28	100
Bromodichloromethane	<100		100		ug/L			07/21/14 16:28	100
Bromoform	<500		500		ug/L			07/21/14 16:28	100
Bromomethane	<400		400		ug/L			07/21/14 16:28	100
2-Butanone (MEK)	<1000		1000		ug/L			07/21/14 16:28	100
n-Butylbenzene	<100		100		ug/L			07/21/14 16:28	100
sec-Butylbenzene	<100		100		ug/L			07/21/14 16:28	100
tert-Butylbenzene	<100		100		ug/L			07/21/14 16:28	100
Carbon disulfide	<100		100		ug/L			07/21/14 16:28	100
Carbon tetrachloride	<200		200		ug/L			07/21/14 16:28	100
Chlorobenzene	<100		100		ug/L			07/21/14 16:28	100
Chlorodibromomethane	<500		500		ug/L			07/21/14 16:28	100
Chloroethane	<400		400		ug/L			07/21/14 16:28	100
Chloroform	<100		100		ug/L			07/21/14 16:28	100
Chloromethane	<300		300		ug/L			07/21/14 16:28	100
2-Chlorotoluene	<100		100		ug/L			07/21/14 16:28	100
4-Chlorotoluene	<100		100		ug/L			07/21/14 16:28	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			07/21/14 16:28	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			07/21/14 16:28	100
Dibromomethane	<100		100		ug/L			07/21/14 16:28	100
1,2-Dichlorobenzene	<100		100		ug/L			07/21/14 16:28	100
1,3-Dichlorobenzene	<100		100		ug/L			07/21/14 16:28	100
1,4-Dichlorobenzene	<100		100		ug/L			07/21/14 16:28	100
Dichlorodifluoromethane	<300	*	300		ug/L			07/21/14 16:28	100
1,1-Dichloroethane	<100		100		ug/L			07/21/14 16:28	100
1,2-Dichloroethane	<100		100		ug/L			07/21/14 16:28	100
1,1-Dichloroethene	**1800**		200		ug/L			07/21/14 16:28	100
cis-1,2-Dichloroethene	**372**		100		ug/L			07/21/14 16:28	100
trans-1,2-Dichloroethene	<100		100		ug/L			07/21/14 16:28	100
1,2-Dichloropropane	<100		100		ug/L			07/21/14 16:28	100
1,3-Dichloropropane	<100		100		ug/L			07/21/14 16:28	100
2,2-Dichloropropane	<400		400		ug/L			07/21/14 16:28	100
1,1-Dichloropropene	<100		100		ug/L			07/21/14 16:28	100
cis-1,3-Dichloropropene	<500		500		ug/L			07/21/14 16:28	100
trans-1,3-Dichloropropene	<500		500		ug/L			07/21/14 16:28	100
Ethylbenzene	<100		100		ug/L			07/21/14 16:28	100
Hexachlorobutadiene	<500		500		ug/L			07/21/14 16:28	100
Hexane	<100		100		ug/L			07/21/14 16:28	100
Isopropylbenzene	<100		100		ug/L			07/21/14 16:28	100
p-Isopropyltoluene	<100		100		ug/L			07/21/14 16:28	100
Methylene Chloride	<500		500		ug/L			07/21/14 16:28	100
Methyl tert-butyl ether	<100		100		ug/L			07/21/14 16:28	100
Naphthalene	<500		500		ug/L			07/21/14 16:28	100
N-Propylbenzene	<100		100		ug/L			07/21/14 16:28	100
Styrene	<100		100		ug/L			07/21/14 16:28	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			07/21/14 16:28	100

Client Sample ID: MW-19

Date Collected: 07/18/14 11:20
Date Received: 07/19/14 09:35

Lab Sample ID: 310-35191-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			07/21/14 16:28	100
Tetrachloroethene	**285**		100		ug/L			07/21/14 16:28	100
Toluene	<100		100		ug/L			07/21/14 16:28	100
1,2,3-Trichlorobenzene	<500		500		ug/L			07/21/14 16:28	100
1,2,4-Trichlorobenzene	<500		500		ug/L			07/21/14 16:28	100
1,1,1-Trichloroethane	**3510**		100		ug/L			07/21/14 16:28	100
1,1,2-Trichloroethane	<100		100		ug/L			07/21/14 16:28	100
Trichloroethene	**124000**		1000		ug/L			07/30/14 21:33	1000
Trichlorofluoromethane	<400	*	400		ug/L			07/21/14 16:28	100
1,2,3-Trichloropropane	<100		100		ug/L			07/21/14 16:28	100
1,2,4-Trimethylbenzene	<100		100		ug/L			07/21/14 16:28	100
1,3,5-Trimethylbenzene	<100		100		ug/L			07/21/14 16:28	100
Vinyl chloride	<100		100		ug/L			07/21/14 16:28	100
Xylenes, Total	<300		300		ug/L			07/21/14 16:28	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/21/14 16:28*	*100*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*		*07/30/14 01:22*	*100*
4-Bromofluorobenzene (Surr)	*104*		*75 - 120*		*07/30/14 21:33*	*1000*
Dibromofluoromethane (Surr)	*113*		*75 - 120*		*07/21/14 16:28*	*100*
Dibromofluoromethane (Surr)	*95*		*75 - 120*		*07/30/14 01:22*	*100*
Dibromofluoromethane (Surr)	*96*		*75 - 120*		*07/30/14 21:33*	*1000*
Toluene-d8 (Surr)	*95*		*80 - 120*		*07/21/14 16:28*	*100*
Toluene-d8 (Surr)	*86*		*80 - 120*		*07/30/14 01:22*	*100*
Toluene-d8 (Surr)	*85*		*80 - 120*		*07/30/14 21:33*	*1000*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**70.5**		5.00		mg/L			07/22/14 11:12	5
Chloride	**23.7**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/22/14 07:47	07/22/14 20:20	1
Manganese	**0.0134**		0.0100		mg/L		07/22/14 07:47	07/22/14 20:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.92**		1.00		mg/L			07/22/14 18:30	1
Nitrite as N	<0.100		0.100		mg/L			07/19/14 10:55	1
Nitrate as N	<0.100		0.100		mg/L			07/19/14 10:55	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-24

Date Collected: 07/18/14 08:10
Date Received: 07/19/14 09:35

Lab Sample ID: 310-35191-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/21/14 12:38	1
Benzene	<0.500		0.500		ug/L			07/21/14 12:38	1
Bromobenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
Bromochloromethane	<5.00		5.00		ug/L			07/21/14 12:38	1
Bromodichloromethane	<1.00		1.00		ug/L			07/21/14 12:38	1
Bromoform	<5.00		5.00		ug/L			07/21/14 12:38	1
Bromomethane	<4.00		4.00		ug/L			07/21/14 12:38	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/21/14 12:38	1
n-Butylbenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
Carbon disulfide	<1.00		1.00		ug/L			07/21/14 12:38	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/21/14 12:38	1
Chlorobenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/21/14 12:38	1
Chloroethane	<4.00		4.00		ug/L			07/21/14 12:38	1
Chloroform	<1.00		1.00		ug/L			07/21/14 12:38	1
Chloromethane	<3.00		3.00		ug/L			07/21/14 12:38	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 12:38	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 12:38	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/21/14 12:38	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/21/14 12:38	1
Dibromomethane	<1.00		1.00		ug/L			07/21/14 12:38	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
Dichlorodifluoromethane	<3.00	*	3.00		ug/L			07/21/14 12:38	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/21/14 12:38	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/21/14 12:38	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/21/14 12:38	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 12:38	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 12:38	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/21/14 12:38	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/21/14 12:38	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/21/14 12:38	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/21/14 12:38	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 12:38	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 12:38	1
Ethylbenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/21/14 12:38	1
Hexane	<1.00		1.00		ug/L			07/21/14 12:38	1
Isopropylbenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/21/14 12:38	1
Methylene Chloride	<5.00		5.00		ug/L			07/21/14 12:38	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/21/14 12:38	1
Naphthalene	<5.00		5.00		ug/L			07/21/14 12:38	1
N-Propylbenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
Styrene	<1.00		1.00		ug/L			07/21/14 12:38	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 12:38	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-24

Date Collected: 07/18/14 08:10
Date Received: 07/19/14 09:35

Lab Sample ID: 310-35191-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 12:38	1
Tetrachloroethene	<1.00		1.00		ug/L			07/21/14 12:38	1
Toluene	<1.00		1.00		ug/L			07/21/14 12:38	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 12:38	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 12:38	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/21/14 12:38	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/21/14 12:38	1
Trichloroethene	**2.43**		1.00		ug/L			07/21/14 12:38	1
Trichlorofluoromethane	<4.00	*	4.00		ug/L			07/21/14 12:38	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/21/14 12:38	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 12:38	1
Vinyl chloride	<1.00		1.00		ug/L			07/21/14 12:38	1
Xylenes, Total	<3.00		3.00		ug/L			07/21/14 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*		*07/21/14 12:38*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 120*		*07/21/14 12:38*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*07/21/14 12:38*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**94.0**		5.00		mg/L			07/22/14 11:12	5
Chloride	**26.9**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/22/14 07:47	07/22/14 20:28	1
Manganese	**0.441**		0.0100		mg/L		07/22/14 07:47	07/22/14 20:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.54**		1.00		mg/L			07/22/14 18:45	1
Nitrite as N	<0.100		0.100		mg/L			07/19/14 10:55	1
Nitrate as N	**0.102**		0.100		mg/L			07/19/14 11:02	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-26S

Date Collected: 07/18/14 10:10
Date Received: 07/19/14 09:35

Lab Sample ID: 310-35191-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			07/21/14 17:20	100
Benzene	<50.0		50.0		ug/L			07/21/14 17:20	100
Bromobenzene	<100		100		ug/L			07/21/14 17:20	100
Bromochloromethane	<500		500		ug/L			07/21/14 17:20	100
Bromodichloromethane	<100		100		ug/L			07/21/14 17:20	100
Bromoform	<500		500		ug/L			07/21/14 17:20	100
Bromomethane	<400		400		ug/L			07/21/14 17:20	100
2-Butanone (MEK)	<1000		1000		ug/L			07/21/14 17:20	100
n-Butylbenzene	<100		100		ug/L			07/21/14 17:20	100
sec-Butylbenzene	<100		100		ug/L			07/21/14 17:20	100
tert-Butylbenzene	<100		100		ug/L			07/21/14 17:20	100
Carbon disulfide	<100		100		ug/L			07/21/14 17:20	100
Carbon tetrachloride	<200		200		ug/L			07/21/14 17:20	100
Chlorobenzene	<100		100		ug/L			07/21/14 17:20	100
Chlorodibromomethane	<500		500		ug/L			07/21/14 17:20	100
Chloroethane	<400		400		ug/L			07/21/14 17:20	100
Chloroform	<100		100		ug/L			07/21/14 17:20	100
Chloromethane	<300		300		ug/L			07/21/14 17:20	100
2-Chlorotoluene	<100		100		ug/L			07/21/14 17:20	100
4-Chlorotoluene	<100		100		ug/L			07/21/14 17:20	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			07/21/14 17:20	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			07/21/14 17:20	100
Dibromomethane	<100		100		ug/L			07/21/14 17:20	100
1,2-Dichlorobenzene	<100		100		ug/L			07/21/14 17:20	100
1,3-Dichlorobenzene	<100		100		ug/L			07/21/14 17:20	100
1,4-Dichlorobenzene	<100		100		ug/L			07/21/14 17:20	100
Dichlorodifluoromethane	<300	*	300		ug/L			07/21/14 17:20	100
1,1-Dichloroethane	<100		100		ug/L			07/21/14 17:20	100
1,2-Dichloroethane	<100		100		ug/L			07/21/14 17:20	100
1,1-Dichloroethene	<200		200		ug/L			07/21/14 17:20	100
cis-1,2-Dichloroethene	**792**		100		ug/L			07/21/14 17:20	100
trans-1,2-Dichloroethene	<100		100		ug/L			07/21/14 17:20	100
1,2-Dichloropropane	<100		100		ug/L			07/21/14 17:20	100
1,3-Dichloropropane	<100		100		ug/L			07/21/14 17:20	100
2,2-Dichloropropane	<400		400		ug/L			07/21/14 17:20	100
1,1-Dichloropropene	<100		100		ug/L			07/21/14 17:20	100
cis-1,3-Dichloropropene	<500		500		ug/L			07/21/14 17:20	100
trans-1,3-Dichloropropene	<500		500		ug/L			07/21/14 17:20	100
Ethylbenzene	<100		100		ug/L			07/21/14 17:20	100
Hexachlorobutadiene	<500		500		ug/L			07/21/14 17:20	100
Hexane	<100		100		ug/L			07/21/14 17:20	100
Isopropylbenzene	<100		100		ug/L			07/21/14 17:20	100
p-Isopropyltoluene	<100		100		ug/L			07/21/14 17:20	100
Methylene Chloride	<500		500		ug/L			07/21/14 17:20	100
Methyl tert-butyl ether	<100		100		ug/L			07/21/14 17:20	100
Naphthalene	<500		500		ug/L			07/21/14 17:20	100
N-Propylbenzene	<100		100		ug/L			07/21/14 17:20	100
Styrene	<100		100		ug/L			07/21/14 17:20	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			07/21/14 17:20	100

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-26S

Date Collected: 07/18/14 10:10
Date Received: 07/19/14 09:35

Lab Sample ID: 310-35191-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			07/21/14 17:20	100
Tetrachloroethene	<100		100		ug/L			07/21/14 17:20	100
Toluene	<100		100		ug/L			07/21/14 17:20	100
1,2,3-Trichlorobenzene	<500		500		ug/L			07/21/14 17:20	100
1,2,4-Trichlorobenzene	<500		500		ug/L			07/21/14 17:20	100
1,1,1-Trichloroethane	<100		100		ug/L			07/21/14 17:20	100
1,1,2-Trichloroethane	<100		100		ug/L			07/21/14 17:20	100
Trichloroethene	**67200**		100		ug/L			07/30/14 02:05	100
Trichlorofluoromethane	<400	*	400		ug/L			07/21/14 17:20	100
1,2,3-Trichloropropane	<100		100		ug/L			07/21/14 17:20	100
1,2,4-Trimethylbenzene	<100		100		ug/L			07/21/14 17:20	100
1,3,5-Trimethylbenzene	<100		100		ug/L			07/21/14 17:20	100
Vinyl chloride	<100		100		ug/L			07/21/14 17:20	100
Xylenes, Total	<300		300		ug/L			07/21/14 17:20	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*		*07/21/14 17:20*	*100*
4-Bromofluorobenzene (Surr)	*104*		*75 - 120*		*07/26/14 18:26*	*100*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/30/14 02:05*	*100*
Dibromofluoromethane (Surr)	*113*		*75 - 120*		*07/21/14 17:20*	*100*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*07/26/14 18:26*	*100*
Dibromofluoromethane (Surr)	*95*		*75 - 120*		*07/30/14 02:05*	*100*
Toluene-d8 (Surr)	*95*		*80 - 120*		*07/21/14 17:20*	*100*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/26/14 18:26*	*100*
Toluene-d8 (Surr)	*84*		*80 - 120*		*07/30/14 02:05*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**48.0**		5.00		mg/L			07/22/14 11:12	5
Chloride	**63.3**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.107**		0.100		mg/L		07/22/14 07:47	07/22/14 20:30	1
Manganese	**0.0473**		0.0100		mg/L		07/22/14 07:47	07/22/14 20:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.19**		1.00		mg/L			07/22/14 19:01	1
Nitrite as N	<0.100		0.100		mg/L			07/19/14 10:55	1
Nitrate as N	**1.28**		0.250		mg/L			07/19/14 11:04	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-29

Date Collected: 07/18/14 11:00
Date Received: 07/19/14 09:35

Lab Sample ID: 310-35191-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			07/21/14 16:54	100
Benzene	<50.0		50.0		ug/L			07/21/14 16:54	100
Bromobenzene	<100		100		ug/L			07/21/14 16:54	100
Bromochloromethane	<500		500		ug/L			07/21/14 16:54	100
Bromodichloromethane	<100		100		ug/L			07/21/14 16:54	100
Bromoform	<500		500		ug/L			07/21/14 16:54	100
Bromomethane	<400		400		ug/L			07/21/14 16:54	100
2-Butanone (MEK)	<1000		1000		ug/L			07/21/14 16:54	100
n-Butylbenzene	<100		100		ug/L			07/21/14 16:54	100
sec-Butylbenzene	<100		100		ug/L			07/21/14 16:54	100
tert-Butylbenzene	<100		100		ug/L			07/21/14 16:54	100
Carbon disulfide	<100		100		ug/L			07/21/14 16:54	100
Carbon tetrachloride	<200		200		ug/L			07/21/14 16:54	100
Chlorobenzene	<100		100		ug/L			07/21/14 16:54	100
Chlorodibromomethane	<500		500		ug/L			07/21/14 16:54	100
Chloroethane	<400		400		ug/L			07/21/14 16:54	100
Chloroform	<100		100		ug/L			07/21/14 16:54	100
Chloromethane	<300		300		ug/L			07/21/14 16:54	100
2-Chlorotoluene	<100		100		ug/L			07/21/14 16:54	100
4-Chlorotoluene	<100		100		ug/L			07/21/14 16:54	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			07/21/14 16:54	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			07/21/14 16:54	100
Dibromomethane	<100		100		ug/L			07/21/14 16:54	100
1,2-Dichlorobenzene	<100		100		ug/L			07/21/14 16:54	100
1,3-Dichlorobenzene	<100		100		ug/L			07/21/14 16:54	100
1,4-Dichlorobenzene	<100		100		ug/L			07/21/14 16:54	100
Dichlorodifluoromethane	<300	*	300		ug/L			07/21/14 16:54	100
1,1-Dichloroethane	<100		100		ug/L			07/21/14 16:54	100
1,2-Dichloroethane	<100		100		ug/L			07/21/14 16:54	100
1,1-Dichloroethene	**404**		200		ug/L			07/21/14 16:54	100
cis-1,2-Dichloroethene	**759**		100		ug/L			07/21/14 16:54	100
trans-1,2-Dichloroethene	<100		100		ug/L			07/21/14 16:54	100
1,2-Dichloropropane	<100		100		ug/L			07/21/14 16:54	100
1,3-Dichloropropane	<100		100		ug/L			07/21/14 16:54	100
2,2-Dichloropropane	<400		400		ug/L			07/21/14 16:54	100
1,1-Dichloropropene	<100		100		ug/L			07/21/14 16:54	100
cis-1,3-Dichloropropene	<500		500		ug/L			07/21/14 16:54	100
trans-1,3-Dichloropropene	<500		500		ug/L			07/21/14 16:54	100
Ethylbenzene	<100		100		ug/L			07/21/14 16:54	100
Hexachlorobutadiene	<500		500		ug/L			07/21/14 16:54	100
Hexane	<100		100		ug/L			07/21/14 16:54	100
Isopropylbenzene	<100		100		ug/L			07/21/14 16:54	100
p-Isopropyltoluene	<100		100		ug/L			07/21/14 16:54	100
Methylene Chloride	<500		500		ug/L			07/21/14 16:54	100
Methyl tert-butyl ether	<100		100		ug/L			07/21/14 16:54	100
Naphthalene	<500		500		ug/L			07/21/14 16:54	100
N-Propylbenzene	<100		100		ug/L			07/21/14 16:54	100
Styrene	<100		100		ug/L			07/21/14 16:54	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			07/21/14 16:54	100

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-29

Date Collected: 07/18/14 11:00
Date Received: 07/19/14 09:35

Lab Sample ID: 310-35191-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			07/21/14 16:54	100
Tetrachloroethene	<100		100		ug/L			07/21/14 16:54	100
Toluene	<100		100		ug/L			07/21/14 16:54	100
1,2,3-Trichlorobenzene	<500		500		ug/L			07/21/14 16:54	100
1,2,4-Trichlorobenzene	<500		500		ug/L			07/21/14 16:54	100
1,1,1-Trichloroethane	<100		100		ug/L			07/21/14 16:54	100
1,1,2-Trichloroethane	<100		100		ug/L			07/21/14 16:54	100
Trichloroethene	**98000**		100		ug/L			07/30/14 01:43	100
Trichlorofluoromethane	<400	*	400		ug/L			07/21/14 16:54	100
1,2,3-Trichloropropane	<100		100		ug/L			07/21/14 16:54	100
1,2,4-Trimethylbenzene	<100		100		ug/L			07/21/14 16:54	100
1,3,5-Trimethylbenzene	<100		100		ug/L			07/21/14 16:54	100
Vinyl chloride	<100		100		ug/L			07/21/14 16:54	100
Xylenes, Total	<300		300		ug/L			07/21/14 16:54	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*07/21/14 16:54*	*100*
4-Bromofluorobenzene (Surr)	*94*		*75 - 120*		*07/26/14 18:00*	*100*
4-Bromofluorobenzene (Surr)	*107*		*75 - 120*		*07/30/14 01:43*	*100*
Dibromofluoromethane (Surr)	*115*		*75 - 120*		*07/21/14 16:54*	*100*
Dibromofluoromethane (Surr)	*93*		*75 - 120*		*07/26/14 18:00*	*100*
Dibromofluoromethane (Surr)	*94*		*75 - 120*		*07/30/14 01:43*	*100*
Toluene-d8 (Surr)	*95*		*80 - 120*		*07/21/14 16:54*	*100*
Toluene-d8 (Surr)	*106*		*80 - 120*		*07/26/14 18:00*	*100*
Toluene-d8 (Surr)	*88*		*80 - 120*		*07/30/14 01:43*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**188**		5.00		mg/L			07/22/14 11:12	5
Chloride	**72.0**		5.00		mg/L			07/22/14 11:12	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			07/19/14 10:55	1
Nitrate as N	<0.100		0.100		mg/L			07/19/14 11:07	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-53

Date Collected: 07/18/14 08:55
Date Received: 07/19/14 09:35

Lab Sample ID: 310-35191-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/21/14 12:12	1
Benzene	<0.500		0.500		ug/L			07/21/14 12:12	1
Bromobenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
Bromochloromethane	<5.00		5.00		ug/L			07/21/14 12:12	1
Bromodichloromethane	<1.00		1.00		ug/L			07/21/14 12:12	1
Bromoform	<5.00		5.00		ug/L			07/21/14 12:12	1
Bromomethane	<4.00		4.00		ug/L			07/21/14 12:12	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/21/14 12:12	1
n-Butylbenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
Carbon disulfide	<1.00		1.00		ug/L			07/21/14 12:12	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/21/14 12:12	1
Chlorobenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/21/14 12:12	1
Chloroethane	<4.00		4.00		ug/L			07/21/14 12:12	1
Chloroform	<1.00		1.00		ug/L			07/21/14 12:12	1
Chloromethane	<3.00		3.00		ug/L			07/21/14 12:12	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 12:12	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 12:12	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/21/14 12:12	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/21/14 12:12	1
Dibromomethane	<1.00		1.00		ug/L			07/21/14 12:12	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
Dichlorodifluoromethane	<3.00	*	3.00		ug/L			07/21/14 12:12	1
1,1-Dichloroethane	**16.7**		1.00		ug/L			07/21/14 12:12	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/21/14 12:12	1
1,1-Dichloroethene	**5.52**		2.00		ug/L			07/21/14 12:12	1
cis-1,2-Dichloroethene	**93.8**		1.00		ug/L			07/21/14 12:12	1
trans-1,2-Dichloroethene	**4.99**		1.00		ug/L			07/21/14 12:12	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/21/14 12:12	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/21/14 12:12	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/21/14 12:12	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/21/14 12:12	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 12:12	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 12:12	1
Ethylbenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/21/14 12:12	1
Hexane	<1.00		1.00		ug/L			07/21/14 12:12	1
Isopropylbenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/21/14 12:12	1
Methylene Chloride	<5.00		5.00		ug/L			07/21/14 12:12	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/21/14 12:12	1
Naphthalene	<5.00		5.00		ug/L			07/21/14 12:12	1
N-Propylbenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
Styrene	<1.00		1.00		ug/L			07/21/14 12:12	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 12:12	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-53

Date Collected: 07/18/14 08:55
Date Received: 07/19/14 09:35

Lab Sample ID: 310-35191-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 12:12	1
Tetrachloroethene	**7.32**		1.00		ug/L			07/21/14 12:12	1
Toluene	<1.00		1.00		ug/L			07/21/14 12:12	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 12:12	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 12:12	1
1,1,1-Trichloroethane	**19.2**		1.00		ug/L			07/21/14 12:12	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/21/14 12:12	1
Trichloroethene	**13.8**		1.00		ug/L			07/21/14 12:12	1
Trichlorofluoromethane	<4.00	*	4.00		ug/L			07/21/14 12:12	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/21/14 12:12	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 12:12	1
Vinyl chloride	<1.00		1.00		ug/L			07/21/14 12:12	1
Xylenes, Total	<3.00		3.00		ug/L			07/21/14 12:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*		*07/21/14 12:12*	*1*
Dibromofluoromethane (Surr)	*114*		*75 - 120*		*07/21/14 12:12*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*07/21/14 12:12*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**36.0**		5.00		mg/L			07/22/14 11:12	5
Chloride	**33.3**		5.00		mg/L			07/22/14 11:12	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/22/14 07:47	07/22/14 20:36	1
Manganese	**0.0105**		0.0100		mg/L		07/22/14 07:47	07/22/14 20:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.50**		1.00		mg/L			07/22/14 19:17	1
Nitrite as N	<0.100		0.100		mg/L			07/19/14 10:55	1
Nitrate as N	**0.172**		0.100		mg/L			07/19/14 11:10	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-35191-6

Date Collected: 07/18/14 00:00
Matrix: Water
Date Received: 07/19/14 09:35

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/21/14 10:03	1
Benzene	<0.500		0.500		ug/L			07/21/14 10:03	1
Bromobenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
Bromochloromethane	<5.00		5.00		ug/L			07/21/14 10:03	1
Bromodichloromethane	<1.00		1.00		ug/L			07/21/14 10:03	1
Bromoform	<5.00		5.00		ug/L			07/21/14 10:03	1
Bromomethane	<4.00		4.00		ug/L			07/21/14 10:03	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/21/14 10:03	1
n-Butylbenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
Carbon disulfide	<1.00		1.00		ug/L			07/21/14 10:03	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/21/14 10:03	1
Chlorobenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/21/14 10:03	1
Chloroethane	<4.00		4.00		ug/L			07/21/14 10:03	1
Chloroform	<1.00		1.00		ug/L			07/21/14 10:03	1
Chloromethane	<3.00		3.00		ug/L			07/21/14 10:03	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 10:03	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 10:03	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/21/14 10:03	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/21/14 10:03	1
Dibromomethane	<1.00		1.00		ug/L			07/21/14 10:03	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
Dichlorodifluoromethane	<3.00	*	3.00		ug/L			07/21/14 10:03	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/21/14 10:03	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/21/14 10:03	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/21/14 10:03	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 10:03	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 10:03	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/21/14 10:03	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/21/14 10:03	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/21/14 10:03	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/21/14 10:03	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 10:03	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 10:03	1
Ethylbenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/21/14 10:03	1
Hexane	<1.00		1.00		ug/L			07/21/14 10:03	1
Isopropylbenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/21/14 10:03	1
Methylene Chloride	<5.00		5.00		ug/L			07/21/14 10:03	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/21/14 10:03	1
Naphthalene	<5.00		5.00		ug/L			07/21/14 10:03	1
N-Propylbenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
Styrene	<1.00		1.00		ug/L			07/21/14 10:03	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 10:03	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-35191-6

Date Collected: 07/18/14 00:00
Date Received: 07/19/14 09:35

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 10:03	1
Tetrachloroethene	<1.00		1.00		ug/L			07/21/14 10:03	1
Toluene	<1.00		1.00		ug/L			07/21/14 10:03	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 10:03	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 10:03	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/21/14 10:03	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/21/14 10:03	1
Trichloroethene	<1.00		1.00		ug/L			07/21/14 10:03	1
Trichlorofluoromethane	<4.00	*	4.00		ug/L			07/21/14 10:03	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/21/14 10:03	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 10:03	1
Vinyl chloride	<1.00		1.00		ug/L			07/21/14 10:03	1
Xylenes, Total	<3.00		3.00		ug/L			07/21/14 10:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*07/21/14 10:03*	*1*
Dibromofluoromethane (Surr)	*115*		*75 - 120*		*07/21/14 10:03*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*07/21/14 10:03*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-35191-1	MW-19	103	113	95
310-35191-1	MW-19	106	95	86
310-35191-1	MW-19	104	96	85
310-35191-2	MW-24	97	111	95
310-35191-3	MW-26S	96	113	95
310-35191-3	MW-26S	104	100	101
310-35191-3	MW-26S	103	95	84
310-35191-4	MW-29	98	115	95
310-35191-4	MW-29	94	93	106
310-35191-4	MW-29	107	94	88
310-35191-5	MW-53	96	114	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-35191-6	Trip Blank	100	115	96
LCS 310-54969/4	Lab Control Sample	98	115	95
LCS 310-55651/4	Lab Control Sample	94	98	100
LCS 310-55897/6	Lab Control Sample	101	102	86
LCS 310-56036/4	Lab Control Sample	98	104	86
LCSD 310-55897/7	Lab Control Sample Dup	100	102	88
MB 310-54969/7	Method Blank	103	115	95
MB 310-55651/7	Method Blank	96	100	90
MB 310-55897/5	Method Blank	100	92	87
MB 310-56036/7	Method Blank	103	96	84

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-54969/7
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/21/14 08:45	1
Benzene	<0.500		0.500		ug/L			07/21/14 08:45	1
Bromobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Bromochloromethane	<5.00		5.00		ug/L			07/21/14 08:45	1
Bromodichloromethane	<1.00		1.00		ug/L			07/21/14 08:45	1
Bromoform	<5.00		5.00		ug/L			07/21/14 08:45	1
Bromomethane	<4.00		4.00		ug/L			07/21/14 08:45	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/21/14 08:45	1
n-Butylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Carbon disulfide	<1.00		1.00		ug/L			07/21/14 08:45	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/21/14 08:45	1
Chlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/21/14 08:45	1
Chloroethane	<4.00		4.00		ug/L			07/21/14 08:45	1
Chloroform	<1.00		1.00		ug/L			07/21/14 08:45	1
Chloromethane	<3.00		3.00		ug/L			07/21/14 08:45	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 08:45	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/21/14 08:45	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/21/14 08:45	1
Dibromomethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/21/14 08:45	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/21/14 08:45	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/21/14 08:45	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/21/14 08:45	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/21/14 08:45	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 08:45	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/21/14 08:45	1
Ethylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/21/14 08:45	1
Hexane	<1.00		1.00		ug/L			07/21/14 08:45	1
Isopropylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/21/14 08:45	1
Methylene Chloride	<5.00		5.00		ug/L			07/21/14 08:45	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/21/14 08:45	1
Naphthalene	<5.00		5.00		ug/L			07/21/14 08:45	1
N-Propylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Styrene	<1.00		1.00		ug/L			07/21/14 08:45	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-54969/7
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
Tetrachloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
Toluene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 08:45	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/21/14 08:45	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/21/14 08:45	1
Trichloroethene	<1.00		1.00		ug/L			07/21/14 08:45	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/21/14 08:45	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/21/14 08:45	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/21/14 08:45	1
Vinyl chloride	<1.00		1.00		ug/L			07/21/14 08:45	1
Xylenes, Total	<3.00		3.00		ug/L			07/21/14 08:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/21/14 08:45*	*1*
Dibromofluoromethane (Surr)	*115*		*75 - 120*		*07/21/14 08:45*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*07/21/14 08:45*	*1*

Lab Sample ID: LCS 310-54969/4
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	46.74		ug/L		117	60 - 150
Benzene	20.0	18.97		ug/L		95	70 - 130
Bromobenzene	20.0	18.50		ug/L		93	75 - 130
Bromochloromethane	20.0	19.99		ug/L		100	65 - 145
Bromodichloromethane	20.0	21.21		ug/L		106	60 - 130
Bromoform	20.0	15.88		ug/L		79	30 - 125
Bromomethane	20.0	15.35		ug/L		77	35 - 130
2-Butanone (MEK)	40.0	40.95		ug/L		102	55 - 140
n-Butylbenzene	20.0	18.21		ug/L		91	55 - 135
sec-Butylbenzene	20.0	18.76		ug/L		94	65 - 135
tert-Butylbenzene	20.0	18.75		ug/L		94	60 - 135
Carbon disulfide	20.0	18.56		ug/L		93	40 - 130
Carbon tetrachloride	20.0	23.66		ug/L		118	55 - 130
Chlorobenzene	20.0	18.23		ug/L		91	75 - 125
Chlorodibromomethane	20.0	19.19		ug/L		96	45 - 125
Chloroethane	20.0	23.60		ug/L		118	55 - 135
Chloroform	20.0	21.52		ug/L		108	70 - 125
Chloromethane	20.0	18.28		ug/L		91	30 - 125
2-Chlorotoluene	20.0	18.77		ug/L		94	75 - 135
4-Chlorotoluene	20.0	19.43		ug/L		97	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	19.78		ug/L		99	35 - 130
1,2-Dibromoethane (EDB)	20.0	20.25		ug/L		101	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-54969/4
Matrix: Water
Analysis Batch: 54969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	20.17		ug/L		101	75 - 130
1,2-Dichlorobenzene	20.0	17.76		ug/L		89	65 - 135
1,3-Dichlorobenzene	20.0	18.46		ug/L		92	70 - 130
1,4-Dichlorobenzene	20.0	18.00		ug/L		90	60 - 140
Dichlorodifluoromethane	20.0	29.24	*	ug/L		146	35 - 130
1,1-Dichloroethane	20.0	20.11		ug/L		101	60 - 130
1,2-Dichloroethane	20.0	22.99		ug/L		115	65 - 140
1,1-Dichloroethene	20.0	20.73		ug/L		104	60 - 135
cis-1,2-Dichloroethene	20.0	19.54		ug/L		98	70 - 135
trans-1,2-Dichloroethene	20.0	20.06		ug/L		100	60 - 145
1,2-Dichloropropane	20.0	18.56		ug/L		93	65 - 130
1,3-Dichloropropane	20.0	19.44		ug/L		97	75 - 125
2,2-Dichloropropane	20.0	23.57		ug/L		118	25 - 120
1,1-Dichloropropene	20.0	19.14		ug/L		96	60 - 140
cis-1,3-Dichloropropene	20.0	18.06		ug/L		90	30 - 120
trans-1,3-Dichloropropene	20.0	17.23		ug/L		86	35 - 120
Ethylbenzene	20.0	18.88		ug/L		94	70 - 130
Hexachlorobutadiene	20.0	19.61		ug/L		98	60 - 135
Hexane	20.0	20.84		ug/L		104	40 - 135
Isopropylbenzene	20.0	18.70		ug/L		94	70 - 125
p-Isopropyltoluene	20.0	18.91		ug/L		95	60 - 140
Methylene Chloride	20.0	18.85		ug/L		94	55 - 145
Methyl tert-butyl ether	20.0	20.45		ug/L		102	50 - 135
Naphthalene	20.0	15.89		ug/L		79	40 - 135
N-Propylbenzene	20.0	18.68		ug/L		93	70 - 135
Styrene	20.0	18.80		ug/L		94	70 - 130
1,1,1,2-Tetrachloroethane	20.0	19.50		ug/L		97	65 - 120
1,1,2,2-Tetrachloroethane	20.0	17.59		ug/L		88	65 - 130
Tetrachloroethene	20.0	19.45		ug/L		97	70 - 135
Toluene	20.0	18.61		ug/L		93	70 - 135
1,2,3-Trichlorobenzene	20.0	16.72		ug/L		84	55 - 130
1,2,4-Trichlorobenzene	20.0	17.10		ug/L		86	40 - 135
1,1,1-Trichloroethane	20.0	23.18		ug/L		116	60 - 125
1,1,2-Trichloroethane	20.0	19.27		ug/L		96	75 - 125
Trichloroethene	20.0	21.09		ug/L		105	70 - 130
Trichlorofluoromethane	20.0	29.30	*	ug/L		146	55 - 145
1,2,3-Trichloropropane	20.0	19.08		ug/L		95	60 - 150
1,2,4-Trimethylbenzene	20.0	19.33		ug/L		97	70 - 140
1,3,5-Trimethylbenzene	20.0	19.14		ug/L		96	70 - 140
Vinyl chloride	20.0	22.19		ug/L		111	45 - 135
Xylenes, Total	40.0	35.64		ug/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*
Dibromofluoromethane (Surr)	*115*		*75 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-55651/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00		ug/L			07/26/14 12:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*		*07/26/14 12:00*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*07/26/14 12:00*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*07/26/14 12:00*	*1*

Lab Sample ID: LCS 310-55651/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	20.0	19.94		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*75 - 120*
Dibromofluoromethane (Surr)	*98*		*75 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: MB 310-55897/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55897

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00		ug/L			07/29/14 17:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*07/29/14 17:50*	*1*
Dibromofluoromethane (Surr)	*92*		*75 - 120*		*07/29/14 17:50*	*1*
Toluene-d8 (Surr)	*87*		*80 - 120*		*07/29/14 17:50*	*1*

Lab Sample ID: LCS 310-55897/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55897

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	20.0	22.77		ug/L		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*86*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 310-55897/7
Matrix: Water
Analysis Batch: 55897

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene			20.0	25.18		ug/L		126	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*88*		*80 - 120*

Lab Sample ID: MB 310-56036/7
Matrix: Water
Analysis Batch: 56036

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/30/14 15:26	1
Benzene	<0.500		0.500		ug/L			07/30/14 15:26	1
Bromobenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
Bromochloromethane	<5.00		5.00		ug/L			07/30/14 15:26	1
Bromodichloromethane	<1.00		1.00		ug/L			07/30/14 15:26	1
Bromoform	<5.00		5.00		ug/L			07/30/14 15:26	1
Bromomethane	<4.00		4.00		ug/L			07/30/14 15:26	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/30/14 15:26	1
n-Butylbenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
Carbon disulfide	<1.00		1.00		ug/L			07/30/14 15:26	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/30/14 15:26	1
Chlorobenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/30/14 15:26	1
Chloroethane	<4.00		4.00		ug/L			07/30/14 15:26	1
Chloroform	<1.00		1.00		ug/L			07/30/14 15:26	1
Chloromethane	<3.00		3.00		ug/L			07/30/14 15:26	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/30/14 15:26	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/30/14 15:26	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			07/30/14 15:26	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			07/30/14 15:26	1
Dibromomethane	<1.00		1.00		ug/L			07/30/14 15:26	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/30/14 15:26	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/30/14 15:26	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/30/14 15:26	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/30/14 15:26	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/30/14 15:26	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/30/14 15:26	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/30/14 15:26	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/30/14 15:26	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/30/14 15:26	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/30/14 15:26	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-56036/7
Matrix: Water
Analysis Batch: 56036

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/30/14 15:26	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/30/14 15:26	1
Ethylbenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/30/14 15:26	1
Hexane	<1.00		1.00		ug/L			07/30/14 15:26	1
Isopropylbenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/30/14 15:26	1
Methylene Chloride	<5.00		5.00		ug/L			07/30/14 15:26	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/30/14 15:26	1
Naphthalene	<5.00		5.00		ug/L			07/30/14 15:26	1
N-Propylbenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
Styrene	<1.00		1.00		ug/L			07/30/14 15:26	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/30/14 15:26	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/30/14 15:26	1
Tetrachloroethene	<1.00		1.00		ug/L			07/30/14 15:26	1
Toluene	<1.00		1.00		ug/L			07/30/14 15:26	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/30/14 15:26	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/30/14 15:26	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/30/14 15:26	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/30/14 15:26	1
Trichloroethene	<1.00		1.00		ug/L			07/30/14 15:26	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/30/14 15:26	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/30/14 15:26	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/30/14 15:26	1
Vinyl chloride	<1.00		1.00		ug/L			07/30/14 15:26	1
Xylenes, Total	<3.00		3.00		ug/L			07/30/14 15:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*07/30/14 15:26*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 120*		*07/30/14 15:26*	*1*
Toluene-d8 (Surr)	*84*		*80 - 120*		*07/30/14 15:26*	*1*

Lab Sample ID: LCS 310-56036/4
Matrix: Water
Analysis Batch: 56036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	43.49		ug/L		109	60 - 150
Benzene	20.0	26.27	*	ug/L		131	70 - 130
Bromobenzene	20.0	19.81		ug/L		99	75 - 130
Bromochloromethane	20.0	25.94		ug/L		130	65 - 145
Bromodichloromethane	20.0	26.36	*	ug/L		132	60 - 130
Bromoform	20.0	20.07		ug/L		100	30 - 125
Bromomethane	20.0	21.30		ug/L		106	35 - 130
2-Butanone (MEK)	40.0	56.56	*	ug/L		141	55 - 140
n-Butylbenzene	20.0	18.88		ug/L		94	55 - 135
sec-Butylbenzene	20.0	18.65		ug/L		93	65 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-56036/4
Matrix: Water
Analysis Batch: 56036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
tert-Butylbenzene	20.0	18.42		ug/L		92	60 - 135
Carbon disulfide	20.0	24.38		ug/L		122	40 - 130
Carbon tetrachloride	20.0	22.93		ug/L		115	55 - 130
Chlorobenzene	20.0	19.90		ug/L		100	75 - 125
Chlorodibromomethane	20.0	20.51		ug/L		103	45 - 125
Chloroethane	20.0	23.02		ug/L		115	55 - 135
Chloroform	20.0	25.75	*	ug/L		129	70 - 125
Chloromethane	20.0	28.25	*	ug/L		141	30 - 125
2-Chlorotoluene	20.0	19.63		ug/L		98	75 - 135
4-Chlorotoluene	20.0	19.93		ug/L		100	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	19.58		ug/L		98	35 - 130
1,2-Dibromoethane (EDB)	20.0	20.44		ug/L		102	70 - 135
Dibromomethane	20.0	26.29	*	ug/L		131	75 - 130
1,2-Dichlorobenzene	20.0	18.83		ug/L		94	65 - 135
1,3-Dichlorobenzene	20.0	18.56		ug/L		93	70 - 130
1,4-Dichlorobenzene	20.0	18.14		ug/L		91	60 - 140
Dichlorodifluoromethane	20.0	24.94		ug/L		125	35 - 130
1,1-Dichloroethane	20.0	25.62		ug/L		128	60 - 130
1,2-Dichloroethane	20.0	23.76		ug/L		119	65 - 140
1,1-Dichloroethene	20.0	21.02		ug/L		105	60 - 135
cis-1,2-Dichloroethene	20.0	25.94		ug/L		130	70 - 135
trans-1,2-Dichloroethene	20.0	25.31		ug/L		127	60 - 145
1,2-Dichloropropane	20.0	26.15	*	ug/L		131	65 - 130
1,3-Dichloropropane	20.0	26.50	*	ug/L		132	75 - 125
2,2-Dichloropropane	20.0	26.04	*	ug/L		130	25 - 120
1,1-Dichloropropene	20.0	24.80		ug/L		124	60 - 140
cis-1,3-Dichloropropene	20.0	19.40		ug/L		97	30 - 120
trans-1,3-Dichloropropene	20.0	21.30		ug/L		106	35 - 120
Ethylbenzene	20.0	19.94		ug/L		100	70 - 130
Hexachlorobutadiene	20.0	21.45		ug/L		107	60 - 135
Hexane	20.0	26.27		ug/L		131	40 - 135
Isopropylbenzene	20.0	19.74		ug/L		99	70 - 125
p-Isopropyltoluene	20.0	18.43		ug/L		92	60 - 140
Methylene Chloride	20.0	26.25		ug/L		131	55 - 145
Methyl tert-butyl ether	20.0	26.26		ug/L		131	50 - 135
Naphthalene	20.0	20.94		ug/L		105	40 - 135
N-Propylbenzene	20.0	20.18		ug/L		101	70 - 135
Styrene	20.0	20.42		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	20.0	19.90		ug/L		99	65 - 120
1,1,2,2-Tetrachloroethane	20.0	22.32		ug/L		112	65 - 130
Tetrachloroethene	20.0	18.73		ug/L		94	70 - 135
Toluene	20.0	19.62		ug/L		98	70 - 135
1,2,3-Trichlorobenzene	20.0	22.33		ug/L		112	55 - 130
1,2,4-Trichlorobenzene	20.0	21.90		ug/L		109	40 - 135
1,1,1-Trichloroethane	20.0	24.69		ug/L		123	60 - 125
1,1,2-Trichloroethane	20.0	20.30		ug/L		102	75 - 125
Trichloroethene	20.0	25.16		ug/L		126	70 - 130
Trichlorofluoromethane	20.0	21.98		ug/L		110	55 - 145

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-56036/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 56036

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	20.0	20.38		ug/L		102	60 - 150
1,2,4-Trimethylbenzene	20.0	18.60		ug/L		93	70 - 140
1,3,5-Trimethylbenzene	20.0	17.57		ug/L		88	70 - 140
Vinyl chloride	20.0	24.10		ug/L		121	45 - 135
Xylenes, Total	40.0	38.46		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*
Dibromofluoromethane (Surr)	*104*		*75 - 120*
Toluene-d8 (Surr)	*86*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-55160/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55160

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			07/22/14 11:12	1
Chloride	<1.00		1.00		mg/L			07/22/14 11:12	1

Lab Sample ID: LCS 310-55160/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55160

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.685		mg/L		97	90 - 110
Chloride	10.0	9.630		mg/L		96	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-55094/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55268 — **Prep Batch: 55094**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		07/22/14 07:47	07/22/14 20:16	1
Manganese	<0.0100		0.0100		mg/L		07/22/14 07:47	07/22/14 20:16	1

Lab Sample ID: LCS 310-55094/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55268 — **Prep Batch: 55094**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.043		mg/L		102	85 - 110
Manganese	1.00	1.038		mg/L		104	85 - 115

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 310-35191-1 MS — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 55268 — **Prep Batch: 55094**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	<0.100		2.00	2.214		mg/L		111	75 - 125
Manganese	0.0134		1.00	1.021		mg/L		101	80 - 115

Lab Sample ID: 310-35191-1 MSD — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 55268 — **Prep Batch: 55094**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	<0.100		2.00	2.182		mg/L		109	75 - 125	1	20
Manganese	0.0134		1.00	1.031		mg/L		102	80 - 115	1	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-55270/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55270

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			07/22/14 13:31	1

Lab Sample ID: LCS 310-55270/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.770		mg/L		96	90 - 110

Lab Sample ID: MB 310-55271/21 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55271

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			07/22/14 20:09	1

Lab Sample ID: LCS 310-55271/22 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 55271

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.798		mg/L		96	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-54943/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			07/19/14 10:55	1

Method: SM 4500 NO2 B - Nitrogen, Nitrite (Continued)

Lab Sample ID: LCS 310-54943/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.5002		mg/L		100	90 - 110

Lab Sample ID: 310-35191-1 MS — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54943

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	<0.100		0.200	0.1826		mg/L		91	75 - 125

Lab Sample ID: 310-35191-1 MSD — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54943

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.100		0.200	0.1861		mg/L		93	75 - 125	2	10

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-54942/14 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			07/19/14 09:37	1

Lab Sample ID: LCS 310-54942/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	16.8	16.98		mg/L		101	90 - 110

Lab Sample ID: 310-35191-1 MS — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54942

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	<0.100		0.200	0.2142		mg/L		107	75 - 125

Lab Sample ID: 310-35191-1 MSD — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 54942

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	<0.100		0.200	0.2166		mg/L		108	75 - 125	1	20

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 54969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-1	MW-19	Total/NA	Ground Water	8260C	
310-35191-2	MW-24	Total/NA	Ground Water	8260C	
310-35191-3	MW-26S	Total/NA	Ground Water	8260C	
310-35191-4	MW-29	Total/NA	Ground Water	8260C	
310-35191-5	MW-53	Total/NA	Ground Water	8260C	
310-35191-6	Trip Blank	Total/NA	Water	8260C	
LCS 310-54969/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-54969/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 55651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-3	MW-26S	Total/NA	Ground Water	8260C	
310-35191-4	MW-29	Total/NA	Ground Water	8260C	
LCS 310-55651/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-55651/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 55897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-1	MW-19	Total/NA	Ground Water	8260C	
310-35191-3	MW-26S	Total/NA	Ground Water	8260C	
310-35191-4	MW-29	Total/NA	Ground Water	8260C	
LCS 310-55897/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 310-55897/7	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 310-55897/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 56036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-1	MW-19	Total/NA	Ground Water	8260C	
LCS 310-56036/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-56036/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 55160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-1	MW-19	Total/NA	Ground Water	9056A	
310-35191-2	MW-24	Total/NA	Ground Water	9056A	
310-35191-3	MW-26S	Total/NA	Ground Water	9056A	
310-35191-4	MW-29	Total/NA	Ground Water	9056A	
310-35191-5	MW-53	Total/NA	Ground Water	9056A	
LCS 310-55160/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-55160/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 55094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-1	MW-19	Total/NA	Ground Water	3010A	
310-35191-1 MS	MW-19	Total/NA	Ground Water	3010A	
310-35191-1 MSD	MW-19	Total/NA	Ground Water	3010A	

Metals (Continued)

Prep Batch: 55094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-2	MW-24	Total/NA	Ground Water	3010A	
310-35191-3	MW-26S	Total/NA	Ground Water	3010A	
310-35191-5	MW-53	Total/NA	Ground Water	3010A	
LCS 310-55094/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-55094/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 55268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-1	MW-19	Total/NA	Ground Water	6010C	55094
310-35191-1 MS	MW-19	Total/NA	Ground Water	6010C	55094
310-35191-1 MSD	MW-19	Total/NA	Ground Water	6010C	55094
310-35191-2	MW-24	Total/NA	Ground Water	6010C	55094
310-35191-3	MW-26S	Total/NA	Ground Water	6010C	55094
310-35191-5	MW-53	Total/NA	Ground Water	6010C	55094
LCS 310-55094/2-A	Lab Control Sample	Total/NA	Water	6010C	55094
MB 310-55094/1-A	Method Blank	Total/NA	Water	6010C	55094

General Chemistry

Analysis Batch: 54942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-1	MW-19	Total/NA	Ground Water	SM 4500 NO3 E	
310-35191-1 MS	MW-19	Total/NA	Ground Water	SM 4500 NO3 E	
310-35191-1 MSD	MW-19	Total/NA	Ground Water	SM 4500 NO3 E	
310-35191-2	MW-24	Total/NA	Ground Water	SM 4500 NO3 E	
310-35191-3	MW-26S	Total/NA	Ground Water	SM 4500 NO3 E	
310-35191-4	MW-29	Total/NA	Ground Water	SM 4500 NO3 E	
310-35191-5	MW-53	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-54942/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-54942/14	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 54943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-1	MW-19	Total/NA	Ground Water	SM 4500 NO2 B	
310-35191-1 MS	MW-19	Total/NA	Ground Water	SM 4500 NO2 B	
310-35191-1 MSD	MW-19	Total/NA	Ground Water	SM 4500 NO2 B	
310-35191-2	MW-24	Total/NA	Ground Water	SM 4500 NO2 B	
310-35191-3	MW-26S	Total/NA	Ground Water	SM 4500 NO2 B	
310-35191-4	MW-29	Total/NA	Ground Water	SM 4500 NO2 B	
310-35191-5	MW-53	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-54943/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-54943/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 55270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-55270/7	Lab Control Sample	Total/NA	Water	9060A	
MB 310-55270/5	Method Blank	Total/NA	Water	9060A	

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

General Chemistry (Continued)

Analysis Batch: 55271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-35191-1	MW-19	Total/NA	Ground Water	9060A	
310-35191-2	MW-24	Total/NA	Ground Water	9060A	
310-35191-3	MW-26S	Total/NA	Ground Water	9060A	
310-35191-5	MW-53	Total/NA	Ground Water	9060A	
LCS 310-55271/22	Lab Control Sample	Total/NA	Water	9060A	
MB 310-55271/21	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-19

Lab Sample ID: 310-35191-1

Date Collected: 07/18/14 11:20
Matrix: Ground Water
Date Received: 07/19/14 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	54969	07/21/14 16:28	SJN	TAL CF
Total/NA	Analysis	8260C		100	55897	07/30/14 01:22	KNW	TAL CF
Total/NA	Analysis	8260C		1000	56036	07/30/14 21:33	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			55094	07/22/14 07:47	SAV	TAL CF
Total/NA	Analysis	6010C		1	55268	07/22/14 20:20	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 18:30	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54943	07/19/14 10:55	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54942	07/19/14 10:55	MDK	TAL CF

Client Sample ID: MW-24

Lab Sample ID: 310-35191-2

Date Collected: 07/18/14 08:10
Matrix: Ground Water
Date Received: 07/19/14 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54969	07/21/14 12:38	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			55094	07/22/14 07:47	SAV	TAL CF
Total/NA	Analysis	6010C		1	55268	07/22/14 20:28	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 18:45	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54943	07/19/14 10:55	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54942	07/19/14 11:02	MDK	TAL CF

Client Sample ID: MW-26S

Lab Sample ID: 310-35191-3

Date Collected: 07/18/14 10:10
Matrix: Ground Water
Date Received: 07/19/14 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	54969	07/21/14 17:20	SJN	TAL CF
Total/NA	Analysis	8260C		100	55651	07/26/14 18:26	SJN	TAL CF
Total/NA	Analysis	8260C		100	55897	07/30/14 02:05	KNW	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			55094	07/22/14 07:47	SAV	TAL CF
Total/NA	Analysis	6010C		1	55268	07/22/14 20:30	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 19:01	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54943	07/19/14 10:55	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54942	07/19/14 11:04	MDK	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Client Sample ID: MW-29

Lab Sample ID: 310-35191-4

Date Collected: 07/18/14 11:00
Matrix: Ground Water
Date Received: 07/19/14 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	54969	07/21/14 16:54	SJN	TAL CF
Total/NA	Analysis	8260C		100	55651	07/26/14 18:00	SJN	TAL CF
Total/NA	Analysis	8260C		100	55897	07/30/14 01:43	KNW	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54943	07/19/14 10:55	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54942	07/19/14 11:07	MDK	TAL CF

Client Sample ID: MW-53

Lab Sample ID: 310-35191-5

Date Collected: 07/18/14 08:55
Matrix: Ground Water
Date Received: 07/19/14 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54969	07/21/14 12:12	SJN	TAL CF
Total/NA	Analysis	9056A		5	55160	07/22/14 11:12	CDD	TAL CF
Total/NA	Prep	3010A			55094	07/22/14 07:47	SAV	TAL CF
Total/NA	Analysis	6010C		1	55268	07/22/14 20:36	MRH	TAL CF
Total/NA	Analysis	9060A		1	55271	07/22/14 19:17	JCF	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	54943	07/19/14 10:55	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	54942	07/19/14 11:10	MDK	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-35191-6

Date Collected: 07/18/14 00:00
Matrix: Water
Date Received: 07/19/14 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	54969	07/21/14 10:03	SJN	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-14
Georgia	State Program	4	N/A	09-29-14
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14
Oregon	NELAP	10	IA100001	09-29-14
Wisconsin	State Program	5	999917270	08-31-14

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-35191-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and T
Cedar Falls Facility

310-35191 Chain of Custody

Client: Golder Assoc. Project: Electrolux

City: _____ State: _____

Date: 7-19-14 Receiver's Initials: CH Time (Delivered): 9:35

Temperature Record:

Cooler ID# (If Applicable): 004

Uncorrected Temp: 0.3 °C

Corrected Temp: 0.1 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Andrew Koff
(Signature)

Your PO #:
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: Jpeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:Stormwater	Analyze For: 8260 Volatiles	Nitrate, Nitrite	Sulfate, Chloride	TOC	Iron, Manganese	E-mail results	Send QC with report
MW-19	7/18/14	1120	6	X			X	X	X		X		X		X						X	X	X	X	X		
MW-24		810	6					X			X										X	X	X	X	X		
MW-26S		1010	6					X			X										X	X	X	X	X		
MW-29		1100	4																		X	X	X	ATE			
MW-53		855	6					X			X										X	X	X	X	X		
Trip Blank			3																		X						

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	7/18/14	1400						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	7/19/14	9:55						

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-19	310-35191-B-1	Plastic 250ml - with Sulfuric Acid	<2		
MW-19	310-35191-C-1	Plastic 250ml - with Nitric Acid	<2		
MW-24	310-35191-B-2	Plastic 250ml - with Sulfuric Acid	<2		
MW-24	310-35191-C-2	Plastic 250ml - with Nitric Acid	<2		
MW-26S	310-35191-B-3	Plastic 250ml - with Sulfuric Acid	<2		
MW-26S	310-35191-C-3	Plastic 250ml - with Nitric Acid	<2		
MW-53	310-35191-B-5	Plastic 250ml - with Sulfuric Acid	<2		
MW-53	310-35191-C-5	Plastic 250ml - with Nitric Acid	<2		

mg 7/17/14

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-35191-1
SDG Number: 103-87305

Login Number: 35191
List Number: 1
Creator: Facciani, Melene K

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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July 31, 2014

Jim Peace
Golder Associates
670 N Commercial St
Suite 103
Manchester, NH 03101

RE: **ELECTROLUX / 103-87305**
Microseeps Workorder: 12784

Dear Jim Peace:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday, July 21, 2014. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robbin Robl 07/31/2014
rrobl@microseeps.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 37

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID	Sample ID	Matrix	Date Collected	Date Received
127840001	MW-62	Water	7/15/2014 10:45	7/21/2014 08:15
127840002	MW-65	Water	7/15/2014 16:00	7/21/2014 08:15
127840003	MW-8	Water	7/16/2014 11:30	7/21/2014 08:15
127840004	MW-15	Water	7/16/2014 16:45	7/21/2014 08:15
127840005	MW-28	Water	7/16/2014 16:10	7/21/2014 08:15
127840006	MW-61	Water	7/16/2014 13:35	7/21/2014 08:15
127840007	MW-63	Water	7/16/2014 08:40	7/21/2014 08:15
127840008	MW-64	Water	7/16/2014 10:10	7/21/2014 08:15
127840009	DUP-01	Water	7/16/2014 00:00	7/21/2014 08:15
127840010	MW-25S	Water	7/17/2014 16:10	7/21/2014 08:15
127840011	MW-25D	Water	7/17/2014 15:40	7/21/2014 08:15
127840012	MW-26D	Water	7/17/2014 15:10	7/21/2014 08:15
127840013	MW-31	Water	7/17/2014 14:30	7/21/2014 08:15
127840014	MW-43D	Water	7/17/2014 08:15	7/21/2014 08:15
127840015	MW-46	Water	7/17/2014 12:40	7/21/2014 08:15
127840016	MW-47D	Water	7/17/2014 13:50	7/21/2014 08:15
127840017	MW-57	Water	7/17/2014 09:45	7/21/2014 08:15
127840018	DUP-02	Water	7/17/2014 00:00	7/21/2014 08:15
127840019	MW-19	Water	7/18/2014 11:20	7/21/2014 08:15
127840020	MW-24	Water	7/18/2014 08:10	7/21/2014 08:15
127840021	MW-26S	Water	7/18/2014 10:10	7/21/2014 08:15
127840022	MW-29	Water	7/18/2014 11:00	7/21/2014 08:15
127840023	MW-53	Water	7/18/2014 08:55	7/21/2014 08:15

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PROJECT SUMMARY

Workorder: 12784 ELECTROLUX / 103-87305

Sample Comments

Lab ID: 127840006 **Sample ID:** MW-61 **Sample Type:** N

The sample was originally analyzed on 07/28/2014. Sample was re-analyzed on 07/31/2014 to confirm the reported concentrations. The resulting re-analysis was outside the established holding time period.

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840001** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-62** Date Collected: 7/15/2014 10:45

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**490**	ug/l	0.10	0.042	1			7/24/2014 13:17	GT	
Ethane	**0.15**	ug/l	0.025	0.0020	1			7/24/2014 13:17	GT	
Ethene	**1.0**	ug/l	0.025	0.0030	1			7/24/2014 13:17	GT	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840002** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-65** Date Collected: 7/15/2014 16:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**84**	ug/l	0.10	0.042	1			7/24/2014 13:30	GT	
Ethane	**0.18**	ug/l	0.025	0.0020	1			7/24/2014 13:30	GT	
Ethene	**0.25**	ug/l	0.025	0.0030	1			7/24/2014 13:30	GT	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840003** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-8** Date Collected: 7/16/2014 11:30

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**3.2**	ug/l	0.10	0.042	1			7/28/2014 11:59	GT	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			7/28/2014 11:59	GT	
Ethene	**0.76**	ug/l	0.025	0.0030	1			7/28/2014 11:59	GT	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840004** Date Received: 7/21/2014 08:15 Matrix: Water

Sample ID: **MW-15** Date Collected: 7/16/2014 16:45

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.1**	ug/l	0.10	0.042	1			7/28/2014 12:11	GT	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			7/28/2014 12:11	GT	
Ethene	**0.14**	ug/l	0.025	0.0030	1			7/28/2014 12:11	GT	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840005** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-28** Date Collected: 7/16/2014 16:10

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2000**	ug/l	0.10	0.042	1			7/28/2014 12:27	GT	
Ethane	**1.0**	ug/l	0.025	0.0020	1			7/28/2014 12:27	GT	
Ethene	**1400**	ug/l	0.025	0.0030	1			7/31/2014 12:09	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840006** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-61** Date Collected: 7/16/2014 13:35

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**1.5**	ug/l	0.10	0.042	1			7/31/2014 12:18	BW	
Ethane	**0.57**	ug/l	0.025	0.0020	1			7/31/2014 12:18	BW	
Ethene	**0.26**	ug/l	0.025	0.0030	1			7/31/2014 12:18	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840007** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-63** Date Collected: 7/16/2014 08:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.8**	ug/l	0.10	0.042	1			7/25/2014 09:50	BW	
Ethane	**0.16**	ug/l	0.025	0.0020	1			7/25/2014 09:50	BW	
Ethene	**0.048**	ug/l	0.025	0.0030	1			7/25/2014 09:50	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840008** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-64** Date Collected: 7/16/2014 10:10

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.1**	ug/l	0.10	0.042	1			7/25/2014 10:33	BW	
Ethane	**0.093**	ug/l	0.025	0.0020	1			7/25/2014 10:33	BW	
Ethene	**0.055**	ug/l	0.025	0.0030	1			7/25/2014 10:33	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840009** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **DUP-01** Date Collected: 7/16/2014 00:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.0**	ug/l	0.10	0.042	1			7/25/2014 10:42	BW	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			7/25/2014 10:42	BW	
Ethene	**0.055**	ug/l	0.025	0.0030	1			7/25/2014 10:42	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840010** Date Received: 7/21/2014 08:15 Matrix: Water

Sample ID: **MW-25S** Date Collected: 7/17/2014 16:10

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**660**	ug/l	0.10	0.042	1			7/25/2014 10:52	BW	
Ethane	**0.23**	ug/l	0.025	0.0020	1			7/25/2014 10:52	BW	
Ethene	**310**	ug/l	0.025	0.0030	1			7/25/2014 10:52	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840011** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-25D** Date Collected: 7/17/2014 15:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**4.4**	ug/l	0.10	0.042	1			7/25/2014 11:03	BW	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			7/25/2014 11:03	BW	
Ethene	**0.044**	ug/l	0.025	0.0030	1			7/25/2014 11:03	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840012** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-26D** Date Collected: 7/17/2014 15:10

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**42**	ug/l	0.10	0.042	1			7/25/2014 11:15	BW	
Ethane	**0.092**	ug/l	0.025	0.0020	1			7/25/2014 11:15	BW	
Ethene	**0.054**	ug/l	0.025	0.0030	1			7/25/2014 11:15	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840013** Date Received: 7/21/2014 08:15 Matrix: Water

Sample ID: **MW-31** Date Collected: 7/17/2014 14:30

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**44**	ug/l	0.10	0.042	1			7/25/2014 11:25	BW	
Ethane	**1.6**	ug/l	0.025	0.0020	1			7/25/2014 11:25	BW	
Ethene	**0.098**	ug/l	0.025	0.0030	1			7/25/2014 11:25	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840014** Date Received: 7/21/2014 08:15 Matrix: Water

Sample ID: **MW-43D** Date Collected: 7/17/2014 08:15

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.59**	ug/l	0.10	0.042	1			7/25/2014 11:36	BW	
Ethane	**0.032**	ug/l	0.025	0.0020	1			7/25/2014 11:36	BW	
Ethene	**0.033**	ug/l	0.025	0.0030	1			7/25/2014 11:36	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840015** Date Received: 7/21/2014 08:15 Matrix: Water

Sample ID: **MW-46** Date Collected: 7/17/2014 12:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**7.1**	ug/l	0.10	0.042	1			7/25/2014 11:48	BW	
Ethane	**0.73**	ug/l	0.025	0.0020	1			7/25/2014 11:48	BW	
Ethene	**0.45**	ug/l	0.025	0.0030	1			7/25/2014 11:48	BW	

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Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840016** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-47D** Date Collected: 7/17/2014 13:50

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**140**	ug/l	0.10	0.042	1			7/28/2014 12:52	GT	
Ethane	**2.3**	ug/l	0.025	0.0020	1			7/28/2014 12:52	GT	
Ethene	**220**	ug/l	0.025	0.0030	1			7/28/2014 12:52	GT	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840017** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-57** Date Collected: 7/17/2014 09:45

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**1.6**	ug/l	0.10	0.042	1			7/28/2014 13:10	GT	
Ethane	**0.025**	ug/l	0.025	0.0020	1			7/28/2014 13:10	GT	
Ethene	**0.091**	ug/l	0.025	0.0030	1			7/28/2014 13:10	GT	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840018** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **DUP-02** Date Collected: 7/17/2014 00:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.40**	ug/l	0.10	0.042	1			7/28/2014 13:22	GT	
Ethane	**0.15**	ug/l	0.025	0.0020	1			7/28/2014 13:22	GT	
Ethene	**0.037**	ug/l	0.025	0.0030	1			7/28/2014 13:22	GT	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840019** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-19** Date Collected: 7/18/2014 11:20

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.41**	ug/l	0.10	0.042	1			7/28/2014 13:37	GT	
Ethane	**4.0**	ug/l	0.025	0.0020	1			7/28/2014 13:37	GT	
Ethene	**4.4**	ug/l	0.025	0.0030	1			7/28/2014 13:37	GT	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840020** Date Received: 7/21/2014 08:15 Matrix: Water

Sample ID: **MW-24** Date Collected: 7/18/2014 08:10

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**96**	ug/l	0.10	0.042	1			7/28/2014 13:50	GT	
Ethane	**0.053**	ug/l	0.025	0.0020	1			7/28/2014 13:50	GT	
Ethene	**0.059**	ug/l	0.025	0.0030	1			7/28/2014 13:50	GT	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840021** Date Received: 7/21/2014 08:15 Matrix: Water

Sample ID: **MW-26S** Date Collected: 7/18/2014 10:10

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**3.4**	ug/l	0.10	0.042	1			7/29/2014 12:31	BW	
Ethane	**1.0**	ug/l	0.025	0.0020	1			7/29/2014 12:31	BW	
Ethene	**0.94**	ug/l	0.025	0.0030	1			7/29/2014 12:31	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840022** Date Received: 7/21/2014 08:15 Matrix: Water

Sample ID: **MW-29** Date Collected: 7/18/2014 11:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.50**	ug/l	0.10	0.042	1			7/29/2014 12:42	BW	
Ethane	**0.49**	ug/l	0.025	0.0020	1			7/29/2014 12:42	BW	
Ethene	**2.1**	ug/l	0.025	0.0030	1			7/29/2014 12:42	BW	

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ANALYTICAL RESULTS

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID: **127840023** Date Received: 7/21/2014 08:15 Matrix: Water
Sample ID: **MW-53** Date Collected: 7/18/2014 08:55

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.61**	ug/l	0.10	0.042	1			7/29/2014 12:53	BW	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			7/29/2014 12:53	BW	
Ethene	**0.14**	ug/l	0.025	0.0030	1			7/29/2014 12:53	BW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 12784 ELECTROLUX / 103-87305

DEFINITIONS/QUALIFIERS

Disclaimer : The Pennsylvania Department of Environmental Protection (PADEP) has decided to no longer recognize analyses that do not produce data for primary compliance, for NELAP accreditation. The methods affected by this decision are AM20GAx, AM21G, SW846 7199 and AM4.02. The laboratory shall continue to administer the NELAP/TNI standard requirements in the performance of these methods.

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).

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QUALITY CONTROL DATA

Workorder: 12784 ELECTROLUX / 103-87305

QC Batch: DISG/3928 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 127840007, 127840008, 127840009, 127840010, 127840011, 127840012, 127840013, 127840014, 127840015

METHOD BLANK: 29230

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 29231 29232

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	760	760	101	101	80-120	0	20	
Ethane	ug/l	38	39	39	102	103	80-120	0.98	20	
Ethene	ug/l	35	36	36	101	101	80-120	0	20	

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QUALITY CONTROL DATA

Workorder: 12784 ELECTROLUX / 103-87305

QC Batch: DISG/3929 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 127840001, 127840002

METHOD BLANK: 29237

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 29239 29241

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	760	760	101	101	80-120	0	20	
Ethane	ug/l	38	44	44	115	116	80-120	0.87	20	
Ethene	ug/l	35	40	40	114	115	80-120	0.87	20	

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QUALITY CONTROL DATA

Workorder: 12784 ELECTROLUX / 103-87305

QC Batch: DISG/3932 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 127840003, 127840004, 127840005, 127840016, 127840017, 127840018, 127840019, 127840020

METHOD BLANK: 29281

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 29283 29285

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	690	650	93	87	80-120	6.7	20	
Ethane	ug/l	38	41	41	109	109	80-120	0	20	
Ethene	ug/l	35	38	38	108	108	80-120	0	20	

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QUALITY CONTROL DATA

Workorder: 12784 ELECTROLUX / 103-87305

QC Batch: DISG/3934 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 127840021, 127840022, 127840023

METHOD BLANK: 29290

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 29291 29292

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	760	730	102	97	80-120	5	20	
Ethane	ug/l	38	38	36	101	96	80-120	5.1	20	
Ethene	ug/l	35	36	34	101	96	80-120	5.1	20	

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QUALITY CONTROL DATA

Workorder: 12784 ELECTROLUX / 103-87305

QC Batch: DISG/3939 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 127840005, 127840006

METHOD BLANK: 29337

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 29339 29341

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	710	730	95	98	80-120	3.1	20	
Ethane	ug/l	38	36	37	95	99	80-120	4.1	20	
Ethene	ug/l	35	34	35	95	99	80-120	4.1	20	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 12784 ELECTROLUX / 103-87305

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
127840007	MW-63			AM20GAX	DISG/3928
127840008	MW-64			AM20GAX	DISG/3928
127840009	DUP-01			AM20GAX	DISG/3928
127840010	MW-25S			AM20GAX	DISG/3928
127840011	MW-25D			AM20GAX	DISG/3928
127840012	MW-26D			AM20GAX	DISG/3928
127840013	MW-31			AM20GAX	DISG/3928
127840014	MW-43D			AM20GAX	DISG/3928
127840015	MW-46			AM20GAX	DISG/3928
127840001	MW-62			AM20GAX	DISG/3929
127840002	MW-65			AM20GAX	DISG/3929
127840003	MW-8			AM20GAX	DISG/3932
127840004	MW-15			AM20GAX	DISG/3932
127840005	MW-28			AM20GAX	DISG/3932
127840016	MW-47D			AM20GAX	DISG/3932
127840017	MW-57			AM20GAX	DISG/3932
127840018	DUP-02			AM20GAX	DISG/3932
127840019	MW-19			AM20GAX	DISG/3932
127840020	MW-24			AM20GAX	DISG/3932
127840021	MW-26S			AM20GAX	DISG/3934
127840022	MW-29			AM20GAX	DISG/3934
127840023	MW-53			AM20GAX	DISG/3934
127840005	MW-28			AM20GAX	DISG/3939
127840006	MW-61			AM20GAX	DISG/3939

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

001230

12784

Section A Required Client Information:

Company: Golder Associates
Address: 670 N Commercial St
Manchester, NH 03101
Email To: jpeace@golder.com
Phone: 603-668-0880 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Jim Peace
Copy To: Andrew Koff
Purchase Order No.:
Project Name: Electrolux - Jefferson
Project Number: 103-87305

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: IA

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Y/N N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zink Acetate & NaOH	Other Na2S2O3	Analysis Test: M.E.E.	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-62	WT	G	~~7/15/14~~ AK	~~1045~~	7/15/14	1045		2								X	X		
2	MW-65				~~1600~~	7/15/14	1600													
3	MW-8					7/16/14	1130													
4	MW-15						1645													
5	MW-28						1610													
6	MW-61						1335													
7	MW-63						840													
8	MW-64						1010													
9	Dup-01						—													
10	MW-25S					7/17/14	1610													
11	MW-25D						1840													
12	MW-26D						1510													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] / Golder	7/18/14	1300	[signature] PACES	7/21/14	0815	2	Y	Y	

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Andrew Koff
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/18/14

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 2

001232

Section A Required Client Information:

Company: Golder Associates
Address: 670 N Commercial St
Manchester, NH 03101
Email To: JPeace@golder.com
Phone: 603-668-0880 Fax:
Requested Due Date/TAT:

Section B Required Project Information: 12784

Report To: Jim Peace
Copy To: Andrew Koff
Purchase Order No.:
Project Name: Electrolux - Jeffrson
Project Number: 103-87305

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: IA

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Y/N: N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zink Acetate & NaOH	Other Na3PO4	Analysis Test: M.E.E.	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-31	WT	G			7/17/14	1430		2								X	X		
2	MW-43D						815													
3	MW-46						1240													
4	MW-47D						1350													
5	MW-57						945													
6	~~MW~~ Dup-02						—													
7	MW-19					7/18/14	1120													
8	MW-24						810													
9	MW-26S						1010													
10	MW-29						1100													
11	MW-53						855													
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
				[signature] PASS	7.24.14	0815	2	Y	Y	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Andrew T Koff

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 07/18/14

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form

Client Name: Golder Project: Electrolux Lab Work Order: 12784

A. Shipping/Container Information (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ Air bill Present: (Yes) No

Tracking Number: 803727575627

Custody Seal on Cooler/Box Present: (Yes) No Seals Intact: (Yes) No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other:_____

Type of Ice: Wet Blue None Ice Intact: Yes Melted

Cooler Temperature:_____ Radiation Screened: Yes No Chain of Custody Present: Yes No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC	✓			
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
Microseeps containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by: LY Date: 7.24.14

Project Manager Review: AR Date: 7/28/14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-40818-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Angela Muehling

Authorized for release by:
10/20/2014 4:01:24 PM
Angela Muehling, Project Manager I
angela.muehling@testamericainc.com

Designee for

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-40818-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-40818-1

Comments
No additional comments.

Receipt
The samples were received on 10/8/2014 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -0.2º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 64845 recovered above the upper control limit for Trichlorofluoromethane (20.2 %D). The LCS associated with this CCV passes using CCV criteria for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-64845/3).

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 64963 was outside the method criteria for the following analytes: Carbon tetrachloride (23.4 %D), 1,1-Dichloropropene (22.1 %D), Tetrachloroethene (23 %D), and 1,1,1-Trichloroethane (23.7 %D), A LCS was analyzed with the affected samples and found to be acceptable using CCV criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method(s) 9056A: The following sample was diluted due to the nature of the sample matrix: MW-62 (310-40818-1). Elevated reporting limits (RLs) are provided for chloride.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-40818-1	MW-62	Ground Water	10/07/14 15:15	10/08/14 09:20
310-40818-2	MW-25D	Ground Water	10/07/14 16:20	10/08/14 09:20
310-40818-3	Dup-01	Water	10/07/14 00:00	10/08/14 09:20
310-40818-4	Trip Blank	Water	10/07/14 00:00	10/08/14 09:20

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Client Sample ID: MW-62 — Lab Sample ID: 310-40818-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.10		1.00		ug/L	1		8260C	Total/NA
Sulfate	17.4		5.00		mg/L	5		9056A	Total/NA
Iron	1.05		0.100		mg/L	1		6010C	Total/NA
Manganese	0.483		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	14.3		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-25D — Lab Sample ID: 310-40818-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	9.10		1.00		ug/L	1		8260C	Total/NA
Sulfate	29.2		5.00		mg/L	5		9056A	Total/NA
Chloride	5.49		5.00		mg/L	5		9056A	Total/NA
Manganese	0.164		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.42		2.00		mg/L	2		9060A	Total/NA
Nitrate as N	0.150		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: Dup-01 — Lab Sample ID: 310-40818-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	9.11		1.00		ug/L	1		8260C	Total/NA
Sulfate	29.9		5.00		mg/L	5		9056A	Total/NA
Chloride	5.79		5.00		mg/L	5		9056A	Total/NA
Manganese	0.189		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.77		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.210		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-40818-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Client Sample ID: MW-62

Date Collected: 10/07/14 15:15
Date Received: 10/08/14 09:20

Lab Sample ID: 310-40818-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/18/14 17:55	1
Benzene	<0.500		0.500		ug/L			10/18/14 17:55	1
Bromobenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
Bromochloromethane	<5.00		5.00		ug/L			10/18/14 17:55	1
Bromodichloromethane	<1.00		1.00		ug/L			10/18/14 17:55	1
Bromoform	<5.00		5.00		ug/L			10/18/14 17:55	1
Bromomethane	<4.00		4.00		ug/L			10/18/14 17:55	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/18/14 17:55	1
n-Butylbenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
Carbon disulfide	<1.00		1.00		ug/L			10/18/14 17:55	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/18/14 17:55	1
Chlorobenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/18/14 17:55	1
Chloroethane	<4.00		4.00		ug/L			10/18/14 17:55	1
Chloroform	<1.00		1.00		ug/L			10/18/14 17:55	1
Chloromethane	<3.00		3.00		ug/L			10/18/14 17:55	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 17:55	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 17:55	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/18/14 17:55	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/18/14 17:55	1
Dibromomethane	<1.00		1.00		ug/L			10/18/14 17:55	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/18/14 17:55	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/18/14 17:55	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/18/14 17:55	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/18/14 17:55	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 17:55	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 17:55	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/18/14 17:55	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/18/14 17:55	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/18/14 17:55	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/18/14 17:55	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 17:55	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 17:55	1
Ethylbenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/18/14 17:55	1
Hexane	<1.00		1.00		ug/L			10/18/14 17:55	1
Isopropylbenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/18/14 17:55	1
Methylene Chloride	<5.00		5.00		ug/L			10/18/14 17:55	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/18/14 17:55	1
Naphthalene	<5.00		5.00		ug/L			10/18/14 17:55	1
N-Propylbenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
Styrene	<1.00		1.00		ug/L			10/18/14 17:55	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 17:55	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Client Sample ID: MW-62

Date Collected: 10/07/14 15:15
Date Received: 10/08/14 09:20

Lab Sample ID: 310-40818-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 17:55	1
Tetrachloroethene	<1.00		1.00		ug/L			10/18/14 17:55	1
Toluene	<1.00		1.00		ug/L			10/18/14 17:55	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 17:55	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 17:55	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/18/14 17:55	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/18/14 17:55	1
Trichloroethene	**1.10**		1.00		ug/L			10/18/14 17:55	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/18/14 17:55	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/18/14 17:55	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 17:55	1
Vinyl chloride	<1.00		1.00		ug/L			10/18/14 17:55	1
Xylenes, Total	<3.00		3.00		ug/L			10/18/14 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*		*10/18/14 17:55*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 120*		*10/18/14 17:55*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*10/18/14 17:55*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**17.4**		5.00		mg/L			10/19/14 13:53	5
Chloride	<5.00		5.00		mg/L			10/19/14 13:53	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.05**		0.100		mg/L		10/09/14 08:46	10/09/14 20:44	1
Manganese	**0.483**		0.0100		mg/L		10/09/14 08:46	10/09/14 20:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**14.3**		1.00		mg/L			10/14/14 16:16	1
Nitrite as N	<0.100		0.100		mg/L			10/08/14 12:55	1
Nitrate as N	<0.100		0.100		mg/L			10/08/14 12:45	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Client Sample ID: MW-25D

Date Collected: 10/07/14 16:20
Date Received: 10/08/14 09:20

Lab Sample ID: 310-40818-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/18/14 18:21	1
Benzene	<0.500		0.500		ug/L			10/18/14 18:21	1
Bromobenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
Bromochloromethane	<5.00		5.00		ug/L			10/18/14 18:21	1
Bromodichloromethane	<1.00		1.00		ug/L			10/18/14 18:21	1
Bromoform	<5.00		5.00		ug/L			10/18/14 18:21	1
Bromomethane	<4.00		4.00		ug/L			10/18/14 18:21	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/18/14 18:21	1
n-Butylbenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
Carbon disulfide	<1.00		1.00		ug/L			10/18/14 18:21	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/18/14 18:21	1
Chlorobenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/18/14 18:21	1
Chloroethane	<4.00		4.00		ug/L			10/18/14 18:21	1
Chloroform	<1.00		1.00		ug/L			10/18/14 18:21	1
Chloromethane	<3.00		3.00		ug/L			10/18/14 18:21	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 18:21	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 18:21	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/18/14 18:21	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/18/14 18:21	1
Dibromomethane	<1.00		1.00		ug/L			10/18/14 18:21	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/18/14 18:21	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/18/14 18:21	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/18/14 18:21	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/18/14 18:21	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 18:21	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 18:21	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/18/14 18:21	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/18/14 18:21	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/18/14 18:21	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/18/14 18:21	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 18:21	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 18:21	1
Ethylbenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/18/14 18:21	1
Hexane	<1.00		1.00		ug/L			10/18/14 18:21	1
Isopropylbenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/18/14 18:21	1
Methylene Chloride	<5.00		5.00		ug/L			10/18/14 18:21	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/18/14 18:21	1
Naphthalene	<5.00		5.00		ug/L			10/18/14 18:21	1
N-Propylbenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
Styrene	<1.00		1.00		ug/L			10/18/14 18:21	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 18:21	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Client Sample ID: MW-25D

Date Collected: 10/07/14 16:20
Date Received: 10/08/14 09:20

Lab Sample ID: 310-40818-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 18:21	1
Tetrachloroethene	<1.00		1.00		ug/L			10/18/14 18:21	1
Toluene	<1.00		1.00		ug/L			10/18/14 18:21	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 18:21	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 18:21	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/18/14 18:21	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/18/14 18:21	1
Trichloroethene	**9.10**		1.00		ug/L			10/18/14 18:21	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/18/14 18:21	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/18/14 18:21	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 18:21	1
Vinyl chloride	<1.00		1.00		ug/L			10/18/14 18:21	1
Xylenes, Total	<3.00		3.00		ug/L			10/18/14 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*10/18/14 18:21*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 120*		*10/18/14 18:21*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*10/18/14 18:21*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**29.2**		5.00		mg/L			10/19/14 13:53	5
Chloride	**5.49**		5.00		mg/L			10/19/14 13:53	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/09/14 08:46	10/09/14 20:46	1
Manganese	**0.164**		0.0100		mg/L		10/09/14 08:46	10/09/14 20:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.42**		2.00		mg/L			10/16/14 16:38	2
Nitrite as N	<0.100		0.100		mg/L			10/08/14 12:55	1
Nitrate as N	**0.150**		0.100		mg/L			10/08/14 12:47	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Client Sample ID: Dup-01

Lab Sample ID: 310-40818-3

Date Collected: 10/07/14 00:00
Matrix: Water
Date Received: 10/08/14 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/18/14 18:46	1
Benzene	<0.500		0.500		ug/L			10/18/14 18:46	1
Bromobenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
Bromochloromethane	<5.00		5.00		ug/L			10/18/14 18:46	1
Bromodichloromethane	<1.00		1.00		ug/L			10/18/14 18:46	1
Bromoform	<5.00		5.00		ug/L			10/18/14 18:46	1
Bromomethane	<4.00		4.00		ug/L			10/18/14 18:46	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/18/14 18:46	1
n-Butylbenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
Carbon disulfide	<1.00		1.00		ug/L			10/18/14 18:46	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/18/14 18:46	1
Chlorobenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/18/14 18:46	1
Chloroethane	<4.00		4.00		ug/L			10/18/14 18:46	1
Chloroform	<1.00		1.00		ug/L			10/18/14 18:46	1
Chloromethane	<3.00		3.00		ug/L			10/18/14 18:46	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 18:46	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 18:46	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/18/14 18:46	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/18/14 18:46	1
Dibromomethane	<1.00		1.00		ug/L			10/18/14 18:46	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/18/14 18:46	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/18/14 18:46	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/18/14 18:46	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/18/14 18:46	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 18:46	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 18:46	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/18/14 18:46	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/18/14 18:46	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/18/14 18:46	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/18/14 18:46	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 18:46	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 18:46	1
Ethylbenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/18/14 18:46	1
Hexane	<1.00		1.00		ug/L			10/18/14 18:46	1
Isopropylbenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/18/14 18:46	1
Methylene Chloride	<5.00		5.00		ug/L			10/18/14 18:46	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/18/14 18:46	1
Naphthalene	<5.00		5.00		ug/L			10/18/14 18:46	1
N-Propylbenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
Styrene	<1.00		1.00		ug/L			10/18/14 18:46	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 18:46	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Client Sample ID: Dup-01

Date Collected: 10/07/14 00:00
Date Received: 10/08/14 09:20

Lab Sample ID: 310-40818-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 18:46	1
Tetrachloroethene	<1.00		1.00		ug/L			10/18/14 18:46	1
Toluene	<1.00		1.00		ug/L			10/18/14 18:46	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 18:46	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 18:46	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/18/14 18:46	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/18/14 18:46	1
Trichloroethene	**9.11**		1.00		ug/L			10/18/14 18:46	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/18/14 18:46	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/18/14 18:46	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 18:46	1
Vinyl chloride	<1.00		1.00		ug/L			10/18/14 18:46	1
Xylenes, Total	<3.00		3.00		ug/L			10/18/14 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*10/18/14 18:46*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*10/18/14 18:46*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*10/18/14 18:46*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**29.9**		5.00		mg/L			10/19/14 13:53	5
Chloride	**5.79**		5.00		mg/L			10/19/14 13:53	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/09/14 08:46	10/09/14 20:48	1
Manganese	**0.189**		0.0100		mg/L		10/09/14 08:46	10/09/14 20:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.77**		1.00		mg/L			10/14/14 18:40	1
Nitrite as N	<0.100		0.100		mg/L			10/08/14 12:55	1
Nitrate as N	**0.210**		0.100		mg/L			10/08/14 12:52	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-40818-4

Date Collected: 10/07/14 00:00
Matrix: Water
Date Received: 10/08/14 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/17/14 11:22	1
Benzene	<0.500		0.500		ug/L			10/17/14 11:22	1
Bromobenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
Bromochloromethane	<5.00		5.00		ug/L			10/17/14 11:22	1
Bromodichloromethane	<1.00		1.00		ug/L			10/17/14 11:22	1
Bromoform	<5.00		5.00		ug/L			10/17/14 11:22	1
Bromomethane	<4.00		4.00		ug/L			10/17/14 11:22	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/17/14 11:22	1
n-Butylbenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
Carbon disulfide	<1.00		1.00		ug/L			10/17/14 11:22	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/17/14 11:22	1
Chlorobenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/17/14 11:22	1
Chloroethane	<4.00		4.00		ug/L			10/17/14 11:22	1
Chloroform	<1.00		1.00		ug/L			10/17/14 11:22	1
Chloromethane	<3.00		3.00		ug/L			10/17/14 11:22	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/17/14 11:22	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/17/14 11:22	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/17/14 11:22	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/17/14 11:22	1
Dibromomethane	<1.00		1.00		ug/L			10/17/14 11:22	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/17/14 11:22	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/17/14 11:22	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/17/14 11:22	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/17/14 11:22	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/17/14 11:22	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/17/14 11:22	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/17/14 11:22	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/17/14 11:22	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/17/14 11:22	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/17/14 11:22	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/17/14 11:22	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/17/14 11:22	1
Ethylbenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/17/14 11:22	1
Hexane	<1.00		1.00		ug/L			10/17/14 11:22	1
Isopropylbenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/17/14 11:22	1
Methylene Chloride	<5.00		5.00		ug/L			10/17/14 11:22	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/17/14 11:22	1
Naphthalene	<5.00		5.00		ug/L			10/17/14 11:22	1
N-Propylbenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
Styrene	<1.00		1.00		ug/L			10/17/14 11:22	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/17/14 11:22	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-40818-4

Date Collected: 10/07/14 00:00
Matrix: Water
Date Received: 10/08/14 09:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/17/14 11:22	1
Tetrachloroethene	<1.00		1.00		ug/L			10/17/14 11:22	1
Toluene	<1.00		1.00		ug/L			10/17/14 11:22	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/17/14 11:22	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/17/14 11:22	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/17/14 11:22	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/17/14 11:22	1
Trichloroethene	<1.00		1.00		ug/L			10/17/14 11:22	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/17/14 11:22	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/17/14 11:22	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/17/14 11:22	1
Vinyl chloride	<1.00		1.00		ug/L			10/17/14 11:22	1
Xylenes, Total	<3.00		3.00		ug/L			10/17/14 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*10/17/14 11:22*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*10/17/14 11:22*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*10/17/14 11:22*	*1*

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-40818-1	MW-62	97	104	95
310-40818-2	MW-25D	100	104	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-40818-3	Dup-01	100	102	94
310-40818-4	Trip Blank	99	99	95
LCS 310-64845/4	Lab Control Sample	97	101	97
LCS 310-64963/4	Lab Control Sample	98	103	98
MB 310-64845/7	Method Blank	100	103	98
MB 310-64963/7	Method Blank	98	103	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-64845/7
Matrix: Water
Analysis Batch: 64845

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/17/14 08:49	1
Benzene	<0.500		0.500		ug/L			10/17/14 08:49	1
Bromobenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
Bromochloromethane	<5.00		5.00		ug/L			10/17/14 08:49	1
Bromodichloromethane	<1.00		1.00		ug/L			10/17/14 08:49	1
Bromoform	<5.00		5.00		ug/L			10/17/14 08:49	1
Bromomethane	<4.00		4.00		ug/L			10/17/14 08:49	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/17/14 08:49	1
n-Butylbenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
Carbon disulfide	<1.00		1.00		ug/L			10/17/14 08:49	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/17/14 08:49	1
Chlorobenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/17/14 08:49	1
Chloroethane	<4.00		4.00		ug/L			10/17/14 08:49	1
Chloroform	<1.00		1.00		ug/L			10/17/14 08:49	1
Chloromethane	<3.00		3.00		ug/L			10/17/14 08:49	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/17/14 08:49	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/17/14 08:49	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/17/14 08:49	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/17/14 08:49	1
Dibromomethane	<1.00		1.00		ug/L			10/17/14 08:49	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/17/14 08:49	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/17/14 08:49	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/17/14 08:49	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/17/14 08:49	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/17/14 08:49	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/17/14 08:49	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/17/14 08:49	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/17/14 08:49	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/17/14 08:49	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/17/14 08:49	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/17/14 08:49	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/17/14 08:49	1
Ethylbenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/17/14 08:49	1
Hexane	<1.00		1.00		ug/L			10/17/14 08:49	1
Isopropylbenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/17/14 08:49	1
Methylene Chloride	<5.00		5.00		ug/L			10/17/14 08:49	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/17/14 08:49	1
Naphthalene	<5.00		5.00		ug/L			10/17/14 08:49	1
N-Propylbenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
Styrene	<1.00		1.00		ug/L			10/17/14 08:49	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-64845/7
Matrix: Water
Analysis Batch: 64845

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/17/14 08:49	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/17/14 08:49	1
Tetrachloroethene	<1.00		1.00		ug/L			10/17/14 08:49	1
Toluene	<1.00		1.00		ug/L			10/17/14 08:49	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/17/14 08:49	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/17/14 08:49	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/17/14 08:49	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/17/14 08:49	1
Trichloroethene	<1.00		1.00		ug/L			10/17/14 08:49	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/17/14 08:49	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/17/14 08:49	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/17/14 08:49	1
Vinyl chloride	<1.00		1.00		ug/L			10/17/14 08:49	1
Xylenes, Total	<3.00		3.00		ug/L			10/17/14 08:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*10/17/14 08:49*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*10/17/14 08:49*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*10/17/14 08:49*	*1*

Lab Sample ID: LCS 310-64845/4
Matrix: Water
Analysis Batch: 64845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	39.56		ug/L		99	60 - 150
Benzene	20.0	19.32		ug/L		97	70 - 130
Bromobenzene	20.0	19.21		ug/L		96	75 - 130
Bromochloromethane	20.0	20.59		ug/L		103	65 - 145
Bromodichloromethane	20.0	19.06		ug/L		95	60 - 130
Bromoform	20.0	15.92		ug/L		80	30 - 125
Bromomethane	20.0	15.95		ug/L		80	35 - 130
2-Butanone (MEK)	40.0	37.10		ug/L		93	55 - 140
n-Butylbenzene	20.0	19.24		ug/L		96	55 - 135
sec-Butylbenzene	20.0	20.30		ug/L		101	65 - 135
tert-Butylbenzene	20.0	20.45		ug/L		102	60 - 135
Carbon disulfide	20.0	19.03		ug/L		95	40 - 130
Carbon tetrachloride	20.0	20.05		ug/L		100	55 - 130
Chlorobenzene	20.0	19.45		ug/L		97	75 - 125
Chlorodibromomethane	20.0	19.07		ug/L		95	45 - 125
Chloroethane	20.0	17.12		ug/L		86	55 - 135
Chloroform	20.0	18.20		ug/L		91	70 - 125
Chloromethane	20.0	17.86		ug/L		89	30 - 125
2-Chlorotoluene	20.0	18.99		ug/L		95	75 - 135
4-Chlorotoluene	20.0	19.36		ug/L		97	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	14.81		ug/L		74	35 - 130
1,2-Dibromoethane (EDB)	20.0	20.50		ug/L		103	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-64845/4
Matrix: Water
Analysis Batch: 64845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	20.08		ug/L		100	75 - 130
1,2-Dichlorobenzene	20.0	18.27		ug/L		91	65 - 135
1,3-Dichlorobenzene	20.0	18.80		ug/L		94	70 - 130
1,4-Dichlorobenzene	20.0	18.41		ug/L		92	60 - 140
Dichlorodifluoromethane	20.0	15.87		ug/L		79	35 - 130
1,1-Dichloroethane	20.0	19.02		ug/L		95	60 - 130
1,2-Dichloroethane	20.0	20.94		ug/L		105	65 - 140
1,1-Dichloroethene	20.0	19.59		ug/L		98	60 - 135
cis-1,2-Dichloroethene	20.0	19.60		ug/L		98	70 - 135
trans-1,2-Dichloroethene	20.0	20.03		ug/L		100	60 - 145
1,2-Dichloropropane	20.0	20.11		ug/L		101	65 - 130
1,3-Dichloropropane	20.0	20.22		ug/L		101	75 - 125
2,2-Dichloropropane	20.0	18.42		ug/L		92	25 - 120
1,1-Dichloropropene	20.0	20.16		ug/L		101	60 - 140
cis-1,3-Dichloropropene	20.0	18.68		ug/L		93	30 - 120
trans-1,3-Dichloropropene	20.0	17.87		ug/L		89	35 - 120
Ethylbenzene	20.0	19.47		ug/L		97	70 - 130
Hexachlorobutadiene	20.0	19.96		ug/L		100	60 - 135
Hexane	20.0	20.83		ug/L		104	40 - 135
Isopropylbenzene	20.0	19.98		ug/L		100	70 - 125
p-Isopropyltoluene	20.0	19.35		ug/L		97	60 - 140
Methylene Chloride	20.0	19.45		ug/L		97	55 - 145
Methyl tert-butyl ether	20.0	19.61		ug/L		98	50 - 135
Naphthalene	20.0	16.62		ug/L		83	40 - 135
N-Propylbenzene	20.0	19.65		ug/L		98	70 - 135
Styrene	20.0	19.45		ug/L		97	70 - 130
1,1,1,2-Tetrachloroethane	20.0	18.95		ug/L		95	65 - 120
1,1,2,2-Tetrachloroethane	20.0	16.80		ug/L		84	65 - 130
Tetrachloroethene	20.0	20.38		ug/L		102	70 - 135
Toluene	20.0	19.61		ug/L		98	70 - 135
1,2,3-Trichlorobenzene	20.0	18.09		ug/L		90	55 - 130
1,2,4-Trichlorobenzene	20.0	17.99		ug/L		90	40 - 135
1,1,1-Trichloroethane	20.0	20.12		ug/L		101	60 - 125
1,1,2-Trichloroethane	20.0	19.56		ug/L		98	75 - 125
Trichloroethene	20.0	20.14		ug/L		101	70 - 130
Trichlorofluoromethane	20.0	19.61		ug/L		98	55 - 145
1,2,3-Trichloropropane	20.0	17.73		ug/L		89	60 - 150
1,2,4-Trimethylbenzene	20.0	18.75		ug/L		94	70 - 140
1,3,5-Trimethylbenzene	20.0	19.85		ug/L		99	70 - 140
Vinyl chloride	20.0	17.07		ug/L		85	45 - 135
Xylenes, Total	40.0	38.70		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-64963/7
Matrix: Water
Analysis Batch: 64963

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/18/14 11:08	1
Benzene	<0.500		0.500		ug/L			10/18/14 11:08	1
Bromobenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Bromochloromethane	<5.00		5.00		ug/L			10/18/14 11:08	1
Bromodichloromethane	<1.00		1.00		ug/L			10/18/14 11:08	1
Bromoform	<5.00		5.00		ug/L			10/18/14 11:08	1
Bromomethane	<4.00		4.00		ug/L			10/18/14 11:08	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/18/14 11:08	1
n-Butylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Carbon disulfide	<1.00		1.00		ug/L			10/18/14 11:08	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/18/14 11:08	1
Chlorobenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/18/14 11:08	1
Chloroethane	<4.00		4.00		ug/L			10/18/14 11:08	1
Chloroform	<1.00		1.00		ug/L			10/18/14 11:08	1
Chloromethane	<3.00		3.00		ug/L			10/18/14 11:08	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 11:08	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/18/14 11:08	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/18/14 11:08	1
Dibromomethane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/18/14 11:08	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/18/14 11:08	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 11:08	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/18/14 11:08	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/18/14 11:08	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/18/14 11:08	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 11:08	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 11:08	1
Ethylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/18/14 11:08	1
Hexane	<1.00		1.00		ug/L			10/18/14 11:08	1
Isopropylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/18/14 11:08	1
Methylene Chloride	<5.00		5.00		ug/L			10/18/14 11:08	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/18/14 11:08	1
Naphthalene	<5.00		5.00		ug/L			10/18/14 11:08	1
N-Propylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Styrene	<1.00		1.00		ug/L			10/18/14 11:08	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-64963/7
Matrix: Water
Analysis Batch: 64963

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
Tetrachloroethene	<1.00		1.00		ug/L			10/18/14 11:08	1
Toluene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 11:08	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 11:08	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
Trichloroethene	<1.00		1.00		ug/L			10/18/14 11:08	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/18/14 11:08	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Vinyl chloride	<1.00		1.00		ug/L			10/18/14 11:08	1
Xylenes, Total	<3.00		3.00		ug/L			10/18/14 11:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/18/14 11:08*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*10/18/14 11:08*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*10/18/14 11:08*	*1*

Lab Sample ID: LCS 310-64963/4
Matrix: Water
Analysis Batch: 64963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	37.89		ug/L		95	60 - 150
Benzene	20.0	19.76		ug/L		99	70 - 130
Bromobenzene	20.0	20.05		ug/L		100	75 - 130
Bromochloromethane	20.0	20.79		ug/L		104	65 - 145
Bromodichloromethane	20.0	19.73		ug/L		99	60 - 130
Bromoform	20.0	15.91		ug/L		80	30 - 125
Bromomethane	20.0	14.84		ug/L		74	35 - 130
2-Butanone (MEK)	40.0	38.47		ug/L		96	55 - 140
n-Butylbenzene	20.0	19.32		ug/L		97	55 - 135
sec-Butylbenzene	20.0	20.73		ug/L		104	65 - 135
tert-Butylbenzene	20.0	20.83		ug/L		104	60 - 135
Carbon disulfide	20.0	20.36		ug/L		102	40 - 130
Carbon tetrachloride	20.0	21.45		ug/L		107	55 - 130
Chlorobenzene	20.0	20.12		ug/L		101	75 - 125
Chlorodibromomethane	20.0	19.46		ug/L		97	45 - 125
Chloroethane	20.0	18.43		ug/L		92	55 - 135
Chloroform	20.0	19.25		ug/L		96	70 - 125
Chloromethane	20.0	18.29		ug/L		91	30 - 125
2-Chlorotoluene	20.0	19.84		ug/L		99	75 - 135
4-Chlorotoluene	20.0	20.30		ug/L		101	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	15.22		ug/L		76	35 - 130
1,2-Dibromoethane (EDB)	20.0	20.05		ug/L		100	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-64963/4
Matrix: Water
Analysis Batch: 64963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	20.34		ug/L		102	75 - 130
1,2-Dichlorobenzene	20.0	18.56		ug/L		93	65 - 135
1,3-Dichlorobenzene	20.0	19.54		ug/L		98	70 - 130
1,4-Dichlorobenzene	20.0	18.16		ug/L		91	60 - 140
Dichlorodifluoromethane	20.0	17.93		ug/L		90	35 - 130
1,1-Dichloroethane	20.0	20.29		ug/L		101	60 - 130
1,2-Dichloroethane	20.0	21.08		ug/L		105	65 - 140
1,1-Dichloroethene	20.0	20.75		ug/L		104	60 - 135
cis-1,2-Dichloroethene	20.0	20.34		ug/L		102	70 - 135
trans-1,2-Dichloroethene	20.0	21.07		ug/L		105	60 - 145
1,2-Dichloropropane	20.0	19.85		ug/L		99	65 - 130
1,3-Dichloropropane	20.0	19.59		ug/L		98	75 - 125
2,2-Dichloropropane	20.0	19.99		ug/L		100	25 - 120
1,1-Dichloropropene	20.0	20.96		ug/L		105	60 - 140
cis-1,3-Dichloropropene	20.0	19.29		ug/L		96	30 - 120
trans-1,3-Dichloropropene	20.0	17.58		ug/L		88	35 - 120
Ethylbenzene	20.0	20.62		ug/L		103	70 - 130
Hexachlorobutadiene	20.0	20.24		ug/L		101	60 - 135
Hexane	20.0	21.11		ug/L		106	40 - 135
Isopropylbenzene	20.0	21.13		ug/L		106	70 - 125
p-Isopropyltoluene	20.0	19.44		ug/L		97	60 - 140
Methylene Chloride	20.0	19.08		ug/L		95	55 - 145
Methyl tert-butyl ether	20.0	19.75		ug/L		99	50 - 135
Naphthalene	20.0	15.22		ug/L		76	40 - 135
N-Propylbenzene	20.0	20.58		ug/L		103	70 - 135
Styrene	20.0	20.45		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	20.0	19.73		ug/L		99	65 - 120
1,1,2,2-Tetrachloroethane	20.0	16.65		ug/L		83	65 - 130
Tetrachloroethene	20.0	21.96		ug/L		110	70 - 135
Toluene	20.0	20.72		ug/L		104	70 - 135
1,2,3-Trichlorobenzene	20.0	18.13		ug/L		91	55 - 130
1,2,4-Trichlorobenzene	20.0	16.84		ug/L		84	40 - 135
1,1,1-Trichloroethane	20.0	21.96		ug/L		110	60 - 125
1,1,2-Trichloroethane	20.0	19.98		ug/L		100	75 - 125
Trichloroethene	20.0	20.98		ug/L		105	70 - 130
Trichlorofluoromethane	20.0	22.22		ug/L		111	55 - 145
1,2,3-Trichloropropane	20.0	18.23		ug/L		91	60 - 150
1,2,4-Trimethylbenzene	20.0	19.56		ug/L		98	70 - 140
1,3,5-Trimethylbenzene	20.0	20.79		ug/L		104	70 - 140
Vinyl chloride	20.0	19.81		ug/L		99	45 - 135
Xylenes, Total	40.0	40.50		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*
Dibromofluoromethane (Surr)	*103*		*75 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-65154/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			10/19/14 13:53	1
Chloride	<1.00		1.00		mg/L			10/19/14 13:53	1

Lab Sample ID: LCS 310-65154/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.820		mg/L		104	90 - 110
Chloride	7.50	7.874		mg/L		105	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-63908/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64064 — **Prep Batch: 63908**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/09/14 08:46	10/09/14 19:56	1
Manganese	<0.0100		0.0100		mg/L		10/09/14 08:46	10/09/14 19:56	1

Lab Sample ID: LCS 310-63908/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64064 — **Prep Batch: 63908**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.027		mg/L		101	85 - 110
Manganese	1.00	0.9584		mg/L		96	85 - 115

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-64641/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			10/14/14 15:45	1

Lab Sample ID: LCS 310-64641/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	5.169		mg/L		103	90 - 110

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 310-40818-1 MS — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64641

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	14.3		4.99	23.58	F1	mg/L		186	75 - 125

Lab Sample ID: 310-40818-1 MSD — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64641

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	14.3		4.99	21.86	F1	mg/L		151	75 - 125	8	20

Lab Sample ID: MB 310-64957/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			10/16/14 15:12	1

Lab Sample ID: LCS 310-64957/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.903		mg/L		98	90 - 110

Lab Sample ID: MB 310-65092/11 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			10/17/14 12:01	1

Lab Sample ID: LCS 310-65092/12 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.868		mg/L		97	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-63817/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 63817

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			10/08/14 12:55	1

Method: SM 4500 NO2 B - Nitrogen, Nitrite (Continued)

Lab Sample ID: LCS 310-63817/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 63817

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N			0.500	0.5238		mg/L		105	90 - 110		

Lab Sample ID: 310-40818-1 MS — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 63817

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N	<0.100		0.400	0.5034	F1	mg/L		126	75 - 125		

Lab Sample ID: 310-40818-1 MSD — **Client Sample ID: MW-62**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 63817

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.100		0.400	0.4914		mg/L		123	75 - 125	2	10

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-63808/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 63808

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			10/08/14 12:37	1

Lab Sample ID: LCS 310-63808/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 63808

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			1.90	1.816		mg/L		96	90 - 110		

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 64845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40818-4	Trip Blank	Total/NA	Water	8260C	
LCS 310-64845/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-64845/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 64963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40818-1	MW-62	Total/NA	Ground Water	8260C	
310-40818-2	MW-25D	Total/NA	Ground Water	8260C	
310-40818-3	Dup-01	Total/NA	Water	8260C	
LCS 310-64963/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-64963/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 65154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40818-1	MW-62	Total/NA	Ground Water	9056A	
310-40818-2	MW-25D	Total/NA	Ground Water	9056A	
310-40818-3	Dup-01	Total/NA	Water	9056A	
LCS 310-65154/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-65154/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 63908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40818-1	MW-62	Total/NA	Ground Water	3010A	
310-40818-2	MW-25D	Total/NA	Ground Water	3010A	
310-40818-3	Dup-01	Total/NA	Water	3010A	
LCS 310-63908/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-63908/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 64064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40818-1	MW-62	Total/NA	Ground Water	6010C	63908
310-40818-2	MW-25D	Total/NA	Ground Water	6010C	63908
310-40818-3	Dup-01	Total/NA	Water	6010C	63908
LCS 310-63908/2-A	Lab Control Sample	Total/NA	Water	6010C	63908
MB 310-63908/1-A	Method Blank	Total/NA	Water	6010C	63908

General Chemistry

Analysis Batch: 63808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40818-1	MW-62	Total/NA	Ground Water	SM 4500 NO3 E	
310-40818-2	MW-25D	Total/NA	Ground Water	SM 4500 NO3 E	
310-40818-3	Dup-01	Total/NA	Water	SM 4500 NO3 E	
LCS 310-63808/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-63808/5	Method Blank	Total/NA	Water	SM 4500 NO3 E	

General Chemistry (Continued)

Analysis Batch: 63817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40818-1	MW-62	Total/NA	Ground Water	SM 4500 NO2 B	
310-40818-1 MS	MW-62	Total/NA	Ground Water	SM 4500 NO2 B	
310-40818-1 MSD	MW-62	Total/NA	Ground Water	SM 4500 NO2 B	
310-40818-2	MW-25D	Total/NA	Ground Water	SM 4500 NO2 B	
310-40818-3	Dup-01	Total/NA	Water	SM 4500 NO2 B	
LCS 310-63817/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-63817/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 64632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40818-3	Dup-01	Total/NA	Water	9060A	

Analysis Batch: 64641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40818-1	MW-62	Total/NA	Ground Water	9060A	
310-40818-1 MS	MW-62	Total/NA	Ground Water	9060A	
310-40818-1 MSD	MW-62	Total/NA	Ground Water	9060A	
LCS 310-64641/4	Lab Control Sample	Total/NA	Water	9060A	
MB 310-64641/3	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 64957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40818-2	MW-25D	Total/NA	Ground Water	9060A	
LCS 310-64957/6	Lab Control Sample	Total/NA	Water	9060A	
MB 310-64957/5	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 65092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-65092/12	Lab Control Sample	Total/NA	Water	9060A	
MB 310-65092/11	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Client Sample ID: MW-62

Lab Sample ID: 310-40818-1
Date Collected: 10/07/14 15:15
Matrix: Ground Water
Date Received: 10/08/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	64963	10/18/14 17:55	SJN	TAL CF
Total/NA	Analysis	9056A		5	65154	10/19/14 13:53	CDD	TAL CF
Total/NA	Prep	3010A			63908	10/09/14 08:46	CJT	TAL CF
Total/NA	Analysis	6010C		1	64064	10/09/14 20:44	OAD	TAL CF
Total/NA	Analysis	9060A		1	64641	10/14/14 16:16	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	63817	10/08/14 12:55	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	63808	10/08/14 12:45	LBB	TAL CF

Client Sample ID: MW-25D

Lab Sample ID: 310-40818-2
Date Collected: 10/07/14 16:20
Matrix: Ground Water
Date Received: 10/08/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	64963	10/18/14 18:21	SJN	TAL CF
Total/NA	Analysis	9056A		5	65154	10/19/14 13:53	CDD	TAL CF
Total/NA	Prep	3010A			63908	10/09/14 08:46	CJT	TAL CF
Total/NA	Analysis	6010C		1	64064	10/09/14 20:46	OAD	TAL CF
Total/NA	Analysis	9060A		2	64957	10/16/14 16:38	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	63817	10/08/14 12:55	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	63808	10/08/14 12:47	LBB	TAL CF

Client Sample ID: Dup-01

Lab Sample ID: 310-40818-3
Date Collected: 10/07/14 00:00
Matrix: Water
Date Received: 10/08/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	64963	10/18/14 18:46	SJN	TAL CF
Total/NA	Analysis	9056A		5	65154	10/19/14 13:53	CDD	TAL CF
Total/NA	Prep	3010A			63908	10/09/14 08:46	CJT	TAL CF
Total/NA	Analysis	6010C		1	64064	10/09/14 20:48	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 18:40	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	63817	10/08/14 12:55	LBB	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	63808	10/08/14 12:52	LBB	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-40818-4
Date Collected: 10/07/14 00:00
Matrix: Water
Date Received: 10/08/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	64845	10/17/14 11:22	SJN	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-15
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14 *
Oregon	NELAP	10	IA100001	09-29-15
Wisconsin	State Program	5	999917270	08-31-15

* Certification renewal pending - certification considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40818-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and T
Cedar Falls Facility

310-40818 Chain of Custody

Client: Golder Project: Electrolux

City: State:

Date: 10 8 14 Receiver's Initials: Time (Delivered): 9:20

Temperature Record:

Cooler ID# (If Applicable): DM-8

Uncorrected Temp: -0.3 °C

Corrected Temp: -0.2 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [x] IR "G" - 130195822
- [ ] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other:

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other:
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)*
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Your PO #: 103-87305
Send Report To: James Peace
Invoice To:
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Project Name: Electrolux - Jefferson, IA
Telephone Number: 603-668-0880 Fax: 603-668-1199
Project Number: 103-87305
Sampled by: (Print Name) Andrew T. Koff
(Signature)
Email Address: Jpeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red & White Label)	Preservative: HCl (Blue & White Label)	Preservative: NaOH (Orange & White Label)	Preservative: H_2SO_4 Plastic (Yellow & White Label)	Preservative: H_2SO_4 Glass(Yellow & White Label)	Preservative: None (Black & White Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other Specify:Stormwater	Analyze For: 8260 Volatiles	Analyze For: Nitrate, Nitrite	Analyze For: Sulfate, Chloride	Analyze For: TOC	Analyze For: Iron, Manganese	E-mail results	Send QC with report
MW-62	10/7/14	1515	6	X			X	X	X		X		X		X						X	X	X	X	X	X	X
MW-25D	10/7/14	1620	6	X			X	X	X		X		X		X						X	X	X	X	X	X	X
Dup-01	10/7/14		6	X			X	X	X		X		X		X						X	X	X	X	X	X	X
trip Blank			3				X								X						X					X	X

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	10/7/14	1700						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	10/8/14	9:20						

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-62	310-40818-B-1	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-62	310-40818-C-1	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-25D	310-40818-B-2	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-25D	310-40818-C-2	Plastic 250ml - with Nitric Acid	<2	_____	_____
Dup-01	310-40818-B-3	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
Dup-01	310-40818-C-3	Plastic 250ml - with Nitric Acid	<2	_____	_____

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-40818-1
SDG Number: 103-87305

Login Number: 40818
List Number: 1
Creator: Facciani, Melene K

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-40985-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
10/21/2014 12:09:57 PM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-40985-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-40985-1

Comments
No additional comments.

Receipt
The samples were received on 10/9/2014 9:12 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 64963 was outside the method criteria for the following analytes: Carbon tetrachloride (23.4 %D), 1,1-Dichloropropene (22.1 %D), Tetrachloroethene (23 %D), and 1,1,1-Trichloroethane (23.7 %D), A LCS was analyzed with the affected samples and found to be acceptable using CCV criteria.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 65150 recovered above the upper control limit for Carbon tetrachloride(24.4%D), 1,1-Dichloropropene(25.5%D), Tetrachloroethene(32.1%D), 1,1,1-Trichloroethane(25.6%D), Trichloroethene(22.5%D), and trans-1,2-Dichloroethene(21.5%D). The LCS associated with this CCV passses CCV criteria for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-65150/3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method(s) 9056A: The following sample was diluted due to the nature of the sample matrix: MW-61 (310-40985-3). Elevated reporting limits (RLs) are provided for chloride.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-40985-1	MW-8	Ground Water	10/08/14 09:20	10/09/14 09:12
310-40985-2	MW-26D	Ground Water	10/08/14 11:50	10/09/14 09:12
310-40985-3	MW-61	Ground Water	10/08/14 10:30	10/09/14 09:12
310-40985-4	MW-63	Ground Water	10/08/14 15:00	10/09/14 09:12
310-40985-5	Trip Blank	Water	10/08/14 00:00	10/09/14 09:12

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: MW-8 — Lab Sample ID: 310-40985-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	33.4		5.00		mg/L	5		9056A	Total/NA
Chloride	62.8		5.00		mg/L	5		9056A	Total/NA
Manganese	0.0541		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.84		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-26D — Lab Sample ID: 310-40985-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	12.0		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	133		1.00		ug/L	1		8260C	Total/NA
Sulfate	38.6		5.00		mg/L	5		9056A	Total/NA
Chloride	11.6		5.00		mg/L	5		9056A	Total/NA
Manganese	0.195		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.22		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.168		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-61 — Lab Sample ID: 310-40985-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	40.7		5.00		mg/L	5		9056A	Total/NA
Iron	0.113		0.100		mg/L	1		6010C	Total/NA
Manganese	0.116		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.51		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-63 — Lab Sample ID: 310-40985-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	115		5.00		mg/L	5		9056A	Total/NA
Chloride	7.92		5.00		mg/L	5		9056A	Total/NA
Iron	0.105		0.100		mg/L	1		6010C	Total/NA
Manganese	1.43		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	16.9		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-40985-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: MW-8

Date Collected: 10/08/14 09:20
Date Received: 10/09/14 09:12

Lab Sample ID: 310-40985-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/18/14 19:12	1
Benzene	<0.500		0.500		ug/L			10/18/14 19:12	1
Bromobenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
Bromochloromethane	<5.00		5.00		ug/L			10/18/14 19:12	1
Bromodichloromethane	<1.00		1.00		ug/L			10/18/14 19:12	1
Bromoform	<5.00		5.00		ug/L			10/18/14 19:12	1
Bromomethane	<4.00		4.00		ug/L			10/18/14 19:12	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/18/14 19:12	1
n-Butylbenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
Carbon disulfide	<1.00		1.00		ug/L			10/18/14 19:12	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/18/14 19:12	1
Chlorobenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/18/14 19:12	1
Chloroethane	<4.00		4.00		ug/L			10/18/14 19:12	1
Chloroform	<1.00		1.00		ug/L			10/18/14 19:12	1
Chloromethane	<3.00		3.00		ug/L			10/18/14 19:12	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 19:12	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 19:12	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/18/14 19:12	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/18/14 19:12	1
Dibromomethane	<1.00		1.00		ug/L			10/18/14 19:12	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/18/14 19:12	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/18/14 19:12	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/18/14 19:12	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/18/14 19:12	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 19:12	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 19:12	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/18/14 19:12	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/18/14 19:12	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/18/14 19:12	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/18/14 19:12	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 19:12	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 19:12	1
Ethylbenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/18/14 19:12	1
Hexane	<1.00		1.00		ug/L			10/18/14 19:12	1
Isopropylbenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/18/14 19:12	1
Methylene Chloride	<5.00		5.00		ug/L			10/18/14 19:12	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/18/14 19:12	1
Naphthalene	<5.00		5.00		ug/L			10/18/14 19:12	1
N-Propylbenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
Styrene	<1.00		1.00		ug/L			10/18/14 19:12	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 19:12	1

Client Sample ID: MW-8

Lab Sample ID: 310-40985-1

Date Collected: 10/08/14 09:20

Matrix: Ground Water

Date Received: 10/09/14 09:12

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 19:12	1
Tetrachloroethene	<1.00		1.00		ug/L			10/18/14 19:12	1
Toluene	<1.00		1.00		ug/L			10/18/14 19:12	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 19:12	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 19:12	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/18/14 19:12	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/18/14 19:12	1
Trichloroethene	<1.00		1.00		ug/L			10/18/14 19:12	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/18/14 19:12	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/18/14 19:12	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 19:12	1
Vinyl chloride	<1.00		1.00		ug/L			10/18/14 19:12	1
Xylenes, Total	<3.00		3.00		ug/L			10/18/14 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*10/18/14 19:12*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*10/18/14 19:12*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*10/18/14 19:12*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**33.4**		5.00		mg/L			10/20/14 15:30	5
Chloride	**62.8**		5.00		mg/L			10/20/14 15:30	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/10/14 08:47	10/10/14 21:16	1
Manganese	**0.0541**		0.0100		mg/L		10/10/14 08:47	10/10/14 21:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.84**		1.00		mg/L			10/14/14 14:03	1
Nitrite as N	<0.100		0.100		mg/L			10/09/14 14:55	1
Nitrate as N	<0.100		0.100		mg/L			10/09/14 15:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: MW-26D

Date Collected: 10/08/14 11:50
Date Received: 10/09/14 09:12

Lab Sample ID: 310-40985-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/18/14 19:37	1
Benzene	<0.500		0.500		ug/L			10/18/14 19:37	1
Bromobenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
Bromochloromethane	<5.00		5.00		ug/L			10/18/14 19:37	1
Bromodichloromethane	<1.00		1.00		ug/L			10/18/14 19:37	1
Bromoform	<5.00		5.00		ug/L			10/18/14 19:37	1
Bromomethane	<4.00		4.00		ug/L			10/18/14 19:37	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/18/14 19:37	1
n-Butylbenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
Carbon disulfide	<1.00		1.00		ug/L			10/18/14 19:37	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/18/14 19:37	1
Chlorobenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/18/14 19:37	1
Chloroethane	<4.00		4.00		ug/L			10/18/14 19:37	1
Chloroform	<1.00		1.00		ug/L			10/18/14 19:37	1
Chloromethane	<3.00		3.00		ug/L			10/18/14 19:37	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 19:37	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 19:37	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/18/14 19:37	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/18/14 19:37	1
Dibromomethane	<1.00		1.00		ug/L			10/18/14 19:37	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/18/14 19:37	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/18/14 19:37	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/18/14 19:37	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/18/14 19:37	1
cis-1,2-Dichloroethene	**12.0**		1.00		ug/L			10/18/14 19:37	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 19:37	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/18/14 19:37	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/18/14 19:37	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/18/14 19:37	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/18/14 19:37	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 19:37	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 19:37	1
Ethylbenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/18/14 19:37	1
Hexane	<1.00		1.00		ug/L			10/18/14 19:37	1
Isopropylbenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/18/14 19:37	1
Methylene Chloride	<5.00		5.00		ug/L			10/18/14 19:37	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/18/14 19:37	1
Naphthalene	<5.00		5.00		ug/L			10/18/14 19:37	1
N-Propylbenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
Styrene	<1.00		1.00		ug/L			10/18/14 19:37	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 19:37	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: MW-26D

Date Collected: 10/08/14 11:50
Date Received: 10/09/14 09:12

Lab Sample ID: 310-40985-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 19:37	1
Tetrachloroethene	<1.00		1.00		ug/L			10/18/14 19:37	1
Toluene	<1.00		1.00		ug/L			10/18/14 19:37	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 19:37	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 19:37	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/18/14 19:37	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/18/14 19:37	1
Trichloroethene	**133**		1.00		ug/L			10/18/14 19:37	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/18/14 19:37	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/18/14 19:37	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 19:37	1
Vinyl chloride	<1.00		1.00		ug/L			10/18/14 19:37	1
Xylenes, Total	<3.00		3.00		ug/L			10/18/14 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*		*10/18/14 19:37*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*10/18/14 19:37*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/18/14 19:37*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**38.6**		5.00		mg/L			10/20/14 20:54	5
Chloride	**11.6**		5.00		mg/L			10/20/14 20:54	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/10/14 08:47	10/10/14 21:19	1
Manganese	**0.195**		0.0100		mg/L		10/10/14 08:47	10/10/14 21:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.22**		1.00		mg/L			10/14/14 14:19	1
Nitrite as N	<0.100		0.100		mg/L			10/09/14 14:55	1
Nitrate as N	**0.168**		0.100		mg/L			10/09/14 15:01	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: MW-61

Lab Sample ID: 310-40985-3

Date Collected: 10/08/14 10:30
Date Received: 10/09/14 09:12

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 06:57	1
Benzene	<0.500		0.500		ug/L			10/20/14 06:57	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 06:57	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 06:57	1
Bromoform	<5.00		5.00		ug/L			10/20/14 06:57	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 06:57	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 06:57	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 06:57	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 06:57	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 06:57	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 06:57	1
Chloroform	<1.00		1.00		ug/L			10/20/14 06:57	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 06:57	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 06:57	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 06:57	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 06:57	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 06:57	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 06:57	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 06:57	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 06:57	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 06:57	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 06:57	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 06:57	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 06:57	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 06:57	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 06:57	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 06:57	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 06:57	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 06:57	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 06:57	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 06:57	1
Hexane	<1.00		1.00		ug/L			10/20/14 06:57	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 06:57	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 06:57	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 06:57	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 06:57	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
Styrene	<1.00		1.00		ug/L			10/20/14 06:57	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 06:57	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: MW-61

Date Collected: 10/08/14 10:30
Date Received: 10/09/14 09:12

Lab Sample ID: 310-40985-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 06:57	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 06:57	1
Toluene	<1.00		1.00		ug/L			10/20/14 06:57	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 06:57	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 06:57	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 06:57	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 06:57	1
Trichloroethene	<1.00		1.00		ug/L			10/20/14 06:57	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 06:57	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 06:57	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 06:57	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 06:57	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 06:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*10/20/14 06:57*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 120*		*10/20/14 06:57*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/20/14 06:57*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**40.7**		5.00		mg/L			10/20/14 20:54	5
Chloride	<5.00		5.00		mg/L			10/20/14 20:54	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.113**		0.100		mg/L		10/10/14 08:47	10/10/14 21:24	1
Manganese	**0.116**		0.0100		mg/L		10/10/14 08:47	10/10/14 21:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.51**		1.00		mg/L			10/16/14 18:16	1
Nitrite as N	<0.100		0.100		mg/L			10/09/14 14:55	1
Nitrate as N	<0.100		0.100		mg/L			10/09/14 15:03	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: MW-63

Lab Sample ID: 310-40985-4

Date Collected: 10/08/14 15:00
Date Received: 10/09/14 09:12

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 07:23	1
Benzene	<0.500		0.500		ug/L			10/20/14 07:23	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 07:23	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 07:23	1
Bromoform	<5.00		5.00		ug/L			10/20/14 07:23	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 07:23	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 07:23	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 07:23	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 07:23	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 07:23	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 07:23	1
Chloroform	<1.00		1.00		ug/L			10/20/14 07:23	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 07:23	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 07:23	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 07:23	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 07:23	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 07:23	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 07:23	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 07:23	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 07:23	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 07:23	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 07:23	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 07:23	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 07:23	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 07:23	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 07:23	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 07:23	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 07:23	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 07:23	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 07:23	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 07:23	1
Hexane	<1.00		1.00		ug/L			10/20/14 07:23	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 07:23	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 07:23	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 07:23	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 07:23	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
Styrene	<1.00		1.00		ug/L			10/20/14 07:23	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 07:23	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: MW-63

Date Collected: 10/08/14 15:00
Date Received: 10/09/14 09:12

Lab Sample ID: 310-40985-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 07:23	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 07:23	1
Toluene	<1.00		1.00		ug/L			10/20/14 07:23	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 07:23	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 07:23	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 07:23	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 07:23	1
Trichloroethene	<1.00		1.00		ug/L			10/20/14 07:23	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 07:23	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 07:23	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 07:23	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 07:23	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 07:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*		*10/20/14 07:23*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*10/20/14 07:23*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/20/14 07:23*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**115**		5.00		mg/L			10/20/14 20:54	5
Chloride	**7.92**		5.00		mg/L			10/20/14 20:54	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.105**		0.100		mg/L		10/10/14 08:47	10/10/14 21:28	1
Manganese	**1.43**		0.0100		mg/L		10/10/14 08:47	10/10/14 21:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**16.9**		1.00		mg/L			10/14/14 15:29	1
Nitrite as N	<0.100		0.100		mg/L			10/09/14 14:55	1
Nitrate as N	<0.100		0.100		mg/L			10/09/14 15:05	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-40985-5

Date Collected: 10/08/14 00:00
Matrix: Water
Date Received: 10/09/14 09:12

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/19/14 11:51	1
Benzene	<0.500		0.500		ug/L			10/19/14 11:51	1
Bromobenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
Bromochloromethane	<5.00		5.00		ug/L			10/19/14 11:51	1
Bromodichloromethane	<1.00		1.00		ug/L			10/19/14 11:51	1
Bromoform	<5.00		5.00		ug/L			10/19/14 11:51	1
Bromomethane	<4.00		4.00		ug/L			10/19/14 11:51	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/19/14 11:51	1
n-Butylbenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
Carbon disulfide	<1.00		1.00		ug/L			10/19/14 11:51	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/19/14 11:51	1
Chlorobenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/19/14 11:51	1
Chloroethane	<4.00		4.00		ug/L			10/19/14 11:51	1
Chloroform	<1.00		1.00		ug/L			10/19/14 11:51	1
Chloromethane	<3.00		3.00		ug/L			10/19/14 11:51	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/19/14 11:51	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/19/14 11:51	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/19/14 11:51	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/19/14 11:51	1
Dibromomethane	<1.00		1.00		ug/L			10/19/14 11:51	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/19/14 11:51	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/19/14 11:51	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/19/14 11:51	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/19/14 11:51	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/19/14 11:51	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/19/14 11:51	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/19/14 11:51	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/19/14 11:51	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/19/14 11:51	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/19/14 11:51	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/19/14 11:51	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/19/14 11:51	1
Ethylbenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/19/14 11:51	1
Hexane	<1.00		1.00		ug/L			10/19/14 11:51	1
Isopropylbenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/19/14 11:51	1
Methylene Chloride	<5.00		5.00		ug/L			10/19/14 11:51	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/19/14 11:51	1
Naphthalene	<5.00		5.00		ug/L			10/19/14 11:51	1
N-Propylbenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
Styrene	<1.00		1.00		ug/L			10/19/14 11:51	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/19/14 11:51	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-40985-5

Date Collected: 10/08/14 00:00
Matrix: Water
Date Received: 10/09/14 09:12

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/19/14 11:51	1
Tetrachloroethene	<1.00		1.00		ug/L			10/19/14 11:51	1
Toluene	<1.00		1.00		ug/L			10/19/14 11:51	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/19/14 11:51	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/19/14 11:51	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/19/14 11:51	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/19/14 11:51	1
Trichloroethene	<1.00		1.00		ug/L			10/19/14 11:51	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/19/14 11:51	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/19/14 11:51	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/19/14 11:51	1
Vinyl chloride	<1.00		1.00		ug/L			10/19/14 11:51	1
Xylenes, Total	<3.00		3.00		ug/L			10/19/14 11:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*		*10/19/14 11:51*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*10/19/14 11:51*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/19/14 11:51*	*1*

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-40985-1	MW-8	100	102	95
310-40985-2	MW-26D	97	99	96
310-40985-3	MW-61	99	98	96
310-40985-4	MW-63	96	99	97

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-40985-5	Trip Blank	97	101	97
LCS 310-64963/4	Lab Control Sample	98	103	98
LCS 310-65117/4	Lab Control Sample	99	103	97
LCS 310-65150/4	Lab Control Sample	100	101	96
MB 310-64963/7	Method Blank	98	103	94
MB 310-65117/7	Method Blank	101	103	96
MB 310-65150/7	Method Blank	98	102	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-64963/7
Matrix: Water
Analysis Batch: 64963

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/18/14 11:08	1
Benzene	<0.500		0.500		ug/L			10/18/14 11:08	1
Bromobenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Bromochloromethane	<5.00		5.00		ug/L			10/18/14 11:08	1
Bromodichloromethane	<1.00		1.00		ug/L			10/18/14 11:08	1
Bromoform	<5.00		5.00		ug/L			10/18/14 11:08	1
Bromomethane	<4.00		4.00		ug/L			10/18/14 11:08	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/18/14 11:08	1
n-Butylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Carbon disulfide	<1.00		1.00		ug/L			10/18/14 11:08	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/18/14 11:08	1
Chlorobenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/18/14 11:08	1
Chloroethane	<4.00		4.00		ug/L			10/18/14 11:08	1
Chloroform	<1.00		1.00		ug/L			10/18/14 11:08	1
Chloromethane	<3.00		3.00		ug/L			10/18/14 11:08	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 11:08	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/18/14 11:08	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/18/14 11:08	1
Dibromomethane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/18/14 11:08	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/18/14 11:08	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 11:08	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/18/14 11:08	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/18/14 11:08	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/18/14 11:08	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 11:08	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/18/14 11:08	1
Ethylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/18/14 11:08	1
Hexane	<1.00		1.00		ug/L			10/18/14 11:08	1
Isopropylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/18/14 11:08	1
Methylene Chloride	<5.00		5.00		ug/L			10/18/14 11:08	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/18/14 11:08	1
Naphthalene	<5.00		5.00		ug/L			10/18/14 11:08	1
N-Propylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Styrene	<1.00		1.00		ug/L			10/18/14 11:08	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-64963/7
Matrix: Water
Analysis Batch: 64963

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
Tetrachloroethene	<1.00		1.00		ug/L			10/18/14 11:08	1
Toluene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 11:08	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/18/14 11:08	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/18/14 11:08	1
Trichloroethene	<1.00		1.00		ug/L			10/18/14 11:08	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/18/14 11:08	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/18/14 11:08	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/18/14 11:08	1
Vinyl chloride	<1.00		1.00		ug/L			10/18/14 11:08	1
Xylenes, Total	<3.00		3.00		ug/L			10/18/14 11:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/18/14 11:08*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*10/18/14 11:08*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*10/18/14 11:08*	*1*

Lab Sample ID: LCS 310-64963/4
Matrix: Water
Analysis Batch: 64963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	37.89		ug/L		95	60 - 150
Benzene	20.0	19.76		ug/L		99	70 - 130
Bromobenzene	20.0	20.05		ug/L		100	75 - 130
Bromochloromethane	20.0	20.79		ug/L		104	65 - 145
Bromodichloromethane	20.0	19.73		ug/L		99	60 - 130
Bromoform	20.0	15.91		ug/L		80	30 - 125
Bromomethane	20.0	14.84		ug/L		74	35 - 130
2-Butanone (MEK)	40.0	38.47		ug/L		96	55 - 140
n-Butylbenzene	20.0	19.32		ug/L		97	55 - 135
sec-Butylbenzene	20.0	20.73		ug/L		104	65 - 135
tert-Butylbenzene	20.0	20.83		ug/L		104	60 - 135
Carbon disulfide	20.0	20.36		ug/L		102	40 - 130
Carbon tetrachloride	20.0	21.45		ug/L		107	55 - 130
Chlorobenzene	20.0	20.12		ug/L		101	75 - 125
Chlorodibromomethane	20.0	19.46		ug/L		97	45 - 125
Chloroethane	20.0	18.43		ug/L		92	55 - 135
Chloroform	20.0	19.25		ug/L		96	70 - 125
Chloromethane	20.0	18.29		ug/L		91	30 - 125
2-Chlorotoluene	20.0	19.84		ug/L		99	75 - 135
4-Chlorotoluene	20.0	20.30		ug/L		101	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	15.22		ug/L		76	35 - 130
1,2-Dibromoethane (EDB)	20.0	20.05		ug/L		100	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-64963/4
Matrix: Water
Analysis Batch: 64963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	20.34		ug/L		102	75 - 130
1,2-Dichlorobenzene	20.0	18.56		ug/L		93	65 - 135
1,3-Dichlorobenzene	20.0	19.54		ug/L		98	70 - 130
1,4-Dichlorobenzene	20.0	18.16		ug/L		91	60 - 140
Dichlorodifluoromethane	20.0	17.93		ug/L		90	35 - 130
1,1-Dichloroethane	20.0	20.29		ug/L		101	60 - 130
1,2-Dichloroethane	20.0	21.08		ug/L		105	65 - 140
1,1-Dichloroethene	20.0	20.75		ug/L		104	60 - 135
cis-1,2-Dichloroethene	20.0	20.34		ug/L		102	70 - 135
trans-1,2-Dichloroethene	20.0	21.07		ug/L		105	60 - 145
1,2-Dichloropropane	20.0	19.85		ug/L		99	65 - 130
1,3-Dichloropropane	20.0	19.59		ug/L		98	75 - 125
2,2-Dichloropropane	20.0	19.99		ug/L		100	25 - 120
1,1-Dichloropropene	20.0	20.96		ug/L		105	60 - 140
cis-1,3-Dichloropropene	20.0	19.29		ug/L		96	30 - 120
trans-1,3-Dichloropropene	20.0	17.58		ug/L		88	35 - 120
Ethylbenzene	20.0	20.62		ug/L		103	70 - 130
Hexachlorobutadiene	20.0	20.24		ug/L		101	60 - 135
Hexane	20.0	21.11		ug/L		106	40 - 135
Isopropylbenzene	20.0	21.13		ug/L		106	70 - 125
p-Isopropyltoluene	20.0	19.44		ug/L		97	60 - 140
Methylene Chloride	20.0	19.08		ug/L		95	55 - 145
Methyl tert-butyl ether	20.0	19.75		ug/L		99	50 - 135
Naphthalene	20.0	15.22		ug/L		76	40 - 135
N-Propylbenzene	20.0	20.58		ug/L		103	70 - 135
Styrene	20.0	20.45		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	20.0	19.73		ug/L		99	65 - 120
1,1,2,2-Tetrachloroethane	20.0	16.65		ug/L		83	65 - 130
Tetrachloroethene	20.0	21.96		ug/L		110	70 - 135
Toluene	20.0	20.72		ug/L		104	70 - 135
1,2,3-Trichlorobenzene	20.0	18.13		ug/L		91	55 - 130
1,2,4-Trichlorobenzene	20.0	16.84		ug/L		84	40 - 135
1,1,1-Trichloroethane	20.0	21.96		ug/L		110	60 - 125
1,1,2-Trichloroethane	20.0	19.98		ug/L		100	75 - 125
Trichloroethene	20.0	20.98		ug/L		105	70 - 130
Trichlorofluoromethane	20.0	22.22		ug/L		111	55 - 145
1,2,3-Trichloropropane	20.0	18.23		ug/L		91	60 - 150
1,2,4-Trimethylbenzene	20.0	19.56		ug/L		98	70 - 140
1,3,5-Trimethylbenzene	20.0	20.79		ug/L		104	70 - 140
Vinyl chloride	20.0	19.81		ug/L		99	45 - 135
Xylenes, Total	40.0	40.50		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*
Dibromofluoromethane (Surr)	*103*		*75 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65117/7
Matrix: Water
Analysis Batch: 65117

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/19/14 11:25	1
Benzene	<0.500		0.500		ug/L			10/19/14 11:25	1
Bromobenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
Bromochloromethane	<5.00		5.00		ug/L			10/19/14 11:25	1
Bromodichloromethane	<1.00		1.00		ug/L			10/19/14 11:25	1
Bromoform	<5.00		5.00		ug/L			10/19/14 11:25	1
Bromomethane	<4.00		4.00		ug/L			10/19/14 11:25	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/19/14 11:25	1
n-Butylbenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
Carbon disulfide	<1.00		1.00		ug/L			10/19/14 11:25	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/19/14 11:25	1
Chlorobenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/19/14 11:25	1
Chloroethane	<4.00		4.00		ug/L			10/19/14 11:25	1
Chloroform	<1.00		1.00		ug/L			10/19/14 11:25	1
Chloromethane	<3.00		3.00		ug/L			10/19/14 11:25	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/19/14 11:25	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/19/14 11:25	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/19/14 11:25	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/19/14 11:25	1
Dibromomethane	<1.00		1.00		ug/L			10/19/14 11:25	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/19/14 11:25	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/19/14 11:25	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/19/14 11:25	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/19/14 11:25	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/19/14 11:25	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/19/14 11:25	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/19/14 11:25	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/19/14 11:25	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/19/14 11:25	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/19/14 11:25	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/19/14 11:25	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/19/14 11:25	1
Ethylbenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/19/14 11:25	1
Hexane	<1.00		1.00		ug/L			10/19/14 11:25	1
Isopropylbenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/19/14 11:25	1
Methylene Chloride	<5.00		5.00		ug/L			10/19/14 11:25	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/19/14 11:25	1
Naphthalene	<5.00		5.00		ug/L			10/19/14 11:25	1
N-Propylbenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
Styrene	<1.00		1.00		ug/L			10/19/14 11:25	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65117/7
Matrix: Water
Analysis Batch: 65117

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/19/14 11:25	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/19/14 11:25	1
Tetrachloroethene	<1.00		1.00		ug/L			10/19/14 11:25	1
Toluene	<1.00		1.00		ug/L			10/19/14 11:25	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/19/14 11:25	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/19/14 11:25	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/19/14 11:25	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/19/14 11:25	1
Trichloroethene	<1.00		1.00		ug/L			10/19/14 11:25	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/19/14 11:25	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/19/14 11:25	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/19/14 11:25	1
Vinyl chloride	<1.00		1.00		ug/L			10/19/14 11:25	1
Xylenes, Total	<3.00		3.00		ug/L			10/19/14 11:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*		*10/19/14 11:25*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*10/19/14 11:25*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/19/14 11:25*	*1*

Lab Sample ID: LCS 310-65117/4
Matrix: Water
Analysis Batch: 65117

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	33.50		ug/L		84	60 - 150
Benzene	20.0	19.51		ug/L		98	70 - 130
Bromobenzene	20.0	19.01		ug/L		95	75 - 130
Bromochloromethane	20.0	19.61		ug/L		98	65 - 145
Bromodichloromethane	20.0	19.56		ug/L		98	60 - 130
Bromoform	20.0	15.80		ug/L		79	30 - 125
Bromomethane	20.0	15.76		ug/L		79	35 - 130
2-Butanone (MEK)	40.0	35.45		ug/L		89	55 - 140
n-Butylbenzene	20.0	19.32		ug/L		97	55 - 135
sec-Butylbenzene	20.0	20.10		ug/L		101	65 - 135
tert-Butylbenzene	20.0	20.35		ug/L		102	60 - 135
Carbon disulfide	20.0	18.01		ug/L		90	40 - 130
Carbon tetrachloride	20.0	20.88		ug/L		104	55 - 130
Chlorobenzene	20.0	19.30		ug/L		97	75 - 125
Chlorodibromomethane	20.0	18.72		ug/L		94	45 - 125
Chloroethane	20.0	21.54		ug/L		108	55 - 135
Chloroform	20.0	18.46		ug/L		92	70 - 125
Chloromethane	20.0	19.29		ug/L		96	30 - 125
2-Chlorotoluene	20.0	19.20		ug/L		96	75 - 135
4-Chlorotoluene	20.0	19.44		ug/L		97	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	13.19		ug/L		66	35 - 130
1,2-Dibromoethane (EDB)	20.0	19.85		ug/L		99	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-65117/4
Matrix: Water
Analysis Batch: 65117

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	19.86		ug/L		99	75 - 130
1,2-Dichlorobenzene	20.0	18.43		ug/L		92	65 - 135
1,3-Dichlorobenzene	20.0	18.79		ug/L		94	70 - 130
1,4-Dichlorobenzene	20.0	18.26		ug/L		91	60 - 140
Dichlorodifluoromethane	20.0	18.78		ug/L		94	35 - 130
1,1-Dichloroethane	20.0	19.48		ug/L		97	60 - 130
1,2-Dichloroethane	20.0	20.68		ug/L		103	65 - 140
1,1-Dichloroethene	20.0	19.06		ug/L		95	60 - 135
cis-1,2-Dichloroethene	20.0	19.97		ug/L		100	70 - 135
trans-1,2-Dichloroethene	20.0	20.13		ug/L		101	60 - 145
1,2-Dichloropropane	20.0	19.90		ug/L		100	65 - 130
1,3-Dichloropropane	20.0	19.60		ug/L		98	75 - 125
2,2-Dichloropropane	20.0	19.80		ug/L		99	25 - 120
1,1-Dichloropropene	20.0	20.64		ug/L		103	60 - 140
cis-1,3-Dichloropropene	20.0	18.85		ug/L		94	30 - 120
trans-1,3-Dichloropropene	20.0	16.97		ug/L		85	35 - 120
Ethylbenzene	20.0	19.84		ug/L		99	70 - 130
Hexachlorobutadiene	20.0	20.65		ug/L		103	60 - 135
Hexane	20.0	19.77		ug/L		99	40 - 135
Isopropylbenzene	20.0	20.49		ug/L		102	70 - 125
p-Isopropyltoluene	20.0	19.45		ug/L		97	60 - 140
Methylene Chloride	20.0	17.82		ug/L		89	55 - 145
Methyl tert-butyl ether	20.0	19.69		ug/L		98	50 - 135
Naphthalene	20.0	16.92		ug/L		85	40 - 135
N-Propylbenzene	20.0	19.87		ug/L		99	70 - 135
Styrene	20.0	19.77		ug/L		99	70 - 130
1,1,1,2-Tetrachloroethane	20.0	18.98		ug/L		95	65 - 120
1,1,2,2-Tetrachloroethane	20.0	16.00		ug/L		80	65 - 130
Tetrachloroethene	20.0	21.37		ug/L		107	70 - 135
Toluene	20.0	19.95		ug/L		100	70 - 135
1,2,3-Trichlorobenzene	20.0	18.72		ug/L		94	55 - 130
1,2,4-Trichlorobenzene	20.0	19.34		ug/L		97	40 - 135
1,1,1-Trichloroethane	20.0	21.45		ug/L		107	60 - 125
1,1,2-Trichloroethane	20.0	18.97		ug/L		95	75 - 125
Trichloroethene	20.0	21.06		ug/L		105	70 - 130
Trichlorofluoromethane	20.0	24.36		ug/L		122	55 - 145
1,2,3-Trichloropropane	20.0	17.60		ug/L		88	60 - 150
1,2,4-Trimethylbenzene	20.0	19.14		ug/L		96	70 - 140
1,3,5-Trimethylbenzene	20.0	20.16		ug/L		101	70 - 140
Vinyl chloride	20.0	21.58		ug/L		108	45 - 135
Xylenes, Total	40.0	39.12		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*
Dibromofluoromethane (Surr)	*103*		*75 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65150/7
Matrix: Water
Analysis Batch: 65150

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/19/14 23:19	1
Benzene	<0.500		0.500		ug/L			10/19/14 23:19	1
Bromobenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Bromochloromethane	<5.00		5.00		ug/L			10/19/14 23:19	1
Bromodichloromethane	<1.00		1.00		ug/L			10/19/14 23:19	1
Bromoform	<5.00		5.00		ug/L			10/19/14 23:19	1
Bromomethane	<4.00		4.00		ug/L			10/19/14 23:19	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/19/14 23:19	1
n-Butylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Carbon disulfide	<1.00		1.00		ug/L			10/19/14 23:19	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/19/14 23:19	1
Chlorobenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/19/14 23:19	1
Chloroethane	<4.00		4.00		ug/L			10/19/14 23:19	1
Chloroform	<1.00		1.00		ug/L			10/19/14 23:19	1
Chloromethane	<3.00		3.00		ug/L			10/19/14 23:19	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/19/14 23:19	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/19/14 23:19	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/19/14 23:19	1
Dibromomethane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/19/14 23:19	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/19/14 23:19	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/19/14 23:19	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/19/14 23:19	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/19/14 23:19	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/19/14 23:19	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/19/14 23:19	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/19/14 23:19	1
Ethylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/19/14 23:19	1
Hexane	<1.00		1.00		ug/L			10/19/14 23:19	1
Isopropylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/19/14 23:19	1
Methylene Chloride	<5.00		5.00		ug/L			10/19/14 23:19	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/19/14 23:19	1
Naphthalene	<5.00		5.00		ug/L			10/19/14 23:19	1
N-Propylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Styrene	<1.00		1.00		ug/L			10/19/14 23:19	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65150/7
Matrix: Water
Analysis Batch: 65150

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
Tetrachloroethene	<1.00		1.00		ug/L			10/19/14 23:19	1
Toluene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/19/14 23:19	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/19/14 23:19	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
Trichloroethene	<1.00		1.00		ug/L			10/19/14 23:19	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/19/14 23:19	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Vinyl chloride	<1.00		1.00		ug/L			10/19/14 23:19	1
Xylenes, Total	<3.00		3.00		ug/L			10/19/14 23:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/19/14 23:19*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*10/19/14 23:19*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/19/14 23:19*	*1*

Lab Sample ID: LCS 310-65150/4
Matrix: Water
Analysis Batch: 65150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	33.21		ug/L		83	60 - 150
Benzene	20.0	19.25		ug/L		96	70 - 130
Bromobenzene	20.0	18.66		ug/L		93	75 - 130
Bromochloromethane	20.0	20.03		ug/L		100	65 - 145
Bromodichloromethane	20.0	18.48		ug/L		92	60 - 130
Bromoform	20.0	14.22		ug/L		71	30 - 125
Bromomethane	20.0	15.99		ug/L		80	35 - 130
2-Butanone (MEK)	40.0	34.79		ug/L		87	55 - 140
n-Butylbenzene	20.0	19.04		ug/L		95	55 - 135
sec-Butylbenzene	20.0	19.77		ug/L		99	65 - 135
tert-Butylbenzene	20.0	19.64		ug/L		98	60 - 135
Carbon disulfide	20.0	19.01		ug/L		95	40 - 130
Carbon tetrachloride	20.0	19.65		ug/L		98	55 - 130
Chlorobenzene	20.0	18.79		ug/L		94	75 - 125
Chlorodibromomethane	20.0	18.62		ug/L		93	45 - 125
Chloroethane	20.0	20.02		ug/L		100	55 - 135
Chloroform	20.0	18.33		ug/L		92	70 - 125
Chloromethane	20.0	18.08		ug/L		90	30 - 125
2-Chlorotoluene	20.0	19.16		ug/L		96	75 - 135
4-Chlorotoluene	20.0	18.87		ug/L		94	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	14.51		ug/L		73	35 - 130
1,2-Dibromoethane (EDB)	20.0	19.39		ug/L		97	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-65150/4
Matrix: Water
Analysis Batch: 65150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	19.77		ug/L		99	75 - 130
1,2-Dichlorobenzene	20.0	18.07		ug/L		90	65 - 135
1,3-Dichlorobenzene	20.0	18.39		ug/L		92	70 - 130
1,4-Dichlorobenzene	20.0	17.72		ug/L		89	60 - 140
Dichlorodifluoromethane	20.0	17.30		ug/L		87	35 - 130
1,1-Dichloroethane	20.0	19.30		ug/L		96	60 - 130
1,2-Dichloroethane	20.0	20.24		ug/L		101	65 - 140
1,1-Dichloroethene	20.0	19.40		ug/L		97	60 - 135
cis-1,2-Dichloroethene	20.0	19.60		ug/L		98	70 - 135
trans-1,2-Dichloroethene	20.0	20.30		ug/L		101	60 - 145
1,2-Dichloropropane	20.0	19.55		ug/L		98	65 - 130
1,3-Dichloropropane	20.0	19.15		ug/L		96	75 - 125
2,2-Dichloropropane	20.0	17.79		ug/L		89	25 - 120
1,1-Dichloropropene	20.0	20.62		ug/L		103	60 - 140
cis-1,3-Dichloropropene	20.0	18.36		ug/L		92	30 - 120
trans-1,3-Dichloropropene	20.0	16.74		ug/L		84	35 - 120
Ethylbenzene	20.0	19.47		ug/L		97	70 - 130
Hexachlorobutadiene	20.0	19.92		ug/L		100	60 - 135
Hexane	20.0	17.91		ug/L		90	40 - 135
Isopropylbenzene	20.0	19.95		ug/L		100	70 - 125
p-Isopropyltoluene	20.0	19.39		ug/L		97	60 - 140
Methylene Chloride	20.0	18.81		ug/L		94	55 - 145
Methyl tert-butyl ether	20.0	19.53		ug/L		98	50 - 135
Naphthalene	20.0	17.45		ug/L		87	40 - 135
N-Propylbenzene	20.0	19.48		ug/L		97	70 - 135
Styrene	20.0	19.06		ug/L		95	70 - 130
1,1,1,2-Tetrachloroethane	20.0	18.61		ug/L		93	65 - 120
1,1,2,2-Tetrachloroethane	20.0	15.12		ug/L		76	65 - 130
Tetrachloroethene	20.0	21.83		ug/L		109	70 - 135
Toluene	20.0	19.58		ug/L		98	70 - 135
1,2,3-Trichlorobenzene	20.0	18.17		ug/L		91	55 - 130
1,2,4-Trichlorobenzene	20.0	18.02		ug/L		90	40 - 135
1,1,1-Trichloroethane	20.0	20.52		ug/L		103	60 - 125
1,1,2-Trichloroethane	20.0	19.00		ug/L		95	75 - 125
Trichloroethene	20.0	20.78		ug/L		104	70 - 130
Trichlorofluoromethane	20.0	22.80		ug/L		114	55 - 145
1,2,3-Trichloropropane	20.0	16.80		ug/L		84	60 - 150
1,2,4-Trimethylbenzene	20.0	18.82		ug/L		94	70 - 140
1,3,5-Trimethylbenzene	20.0	20.00		ug/L		100	70 - 140
Vinyl chloride	20.0	20.32		ug/L		102	45 - 135
Xylenes, Total	40.0	38.51		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-65314/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			10/20/14 20:54	1
Chloride	<1.00		1.00		mg/L			10/20/14 20:54	1

Lab Sample ID: LCS 310-65314/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.782		mg/L		104	90 - 110
Chloride	7.50	7.865		mg/L		105	90 - 110

Lab Sample ID: 310-40985-2 MS — **Client Sample ID: MW-26D**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 65314

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	38.6		25.0	65.34		mg/L		107	80 - 120
Chloride	11.6		25.0	36.58		mg/L		100	80 - 120

Lab Sample ID: 310-40985-2 MSD — **Client Sample ID: MW-26D**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 65314

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	38.6		25.0	66.86		mg/L		113	80 - 120	2	15
Chloride	11.6		25.0	37.55		mg/L		104	80 - 120	3	15

Lab Sample ID: MB 310-65315/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65315

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			10/20/14 15:30	1
Chloride	<1.00		1.00		mg/L			10/20/14 15:30	1

Lab Sample ID: LCS 310-65315/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65315

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.744		mg/L		103	90 - 110
Chloride	7.50	7.863		mg/L		105	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-64092/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64239 — **Prep Batch: 64092**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/10/14 08:47	10/10/14 20:46	1
Manganese	<0.0100		0.0100		mg/L		10/10/14 08:47	10/10/14 20:46	1

Lab Sample ID: LCS 310-64092/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64239 — **Prep Batch: 64092**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.102		mg/L		105	85 - 110
Manganese	1.00	1.022		mg/L		102	85 - 115

Lab Sample ID: 310-40985-4 MS — **Client Sample ID: MW-63**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64239 — **Prep Batch: 64092**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.105		2.00	2.106		mg/L		100	75 - 125
Manganese	1.43		1.00	2.413		mg/L		98	80 - 115

Lab Sample ID: 310-40985-3 DU — **Client Sample ID: MW-61**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64239 — **Prep Batch: 64092**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	0.113		0.1093		mg/L		3	20
Manganese	0.116		0.1176		mg/L		1	15

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-64638/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64638

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			10/13/14 16:44	1

Lab Sample ID: LCS 310-64638/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.839		mg/L		97	90 - 110

Lab Sample ID: MB 310-64641/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			10/14/14 15:45	1

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 310-64641/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	5.169		mg/L		103	90 - 110

Lab Sample ID: MB 310-64957/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			10/16/14 15:12	1

Lab Sample ID: LCS 310-64957/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.903		mg/L		98	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-64044/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64044

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			10/09/14 14:55	1

Lab Sample ID: LCS 310-64044/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64044

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.5182		mg/L		104	90 - 110

Lab Sample ID: 310-40985-1 MS — **Client Sample ID: MW-8**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64044

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	<0.100		0.400	0.4857		mg/L		121	75 - 125

Lab Sample ID: 310-40985-1 MSD — **Client Sample ID: MW-8**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64044

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.100		0.400	0.4977		mg/L		124	75 - 125	2	10

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-64040/3
Matrix: Water
Analysis Batch: 64040

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			10/09/14 13:10	1

Lab Sample ID: LCS 310-64040/4
Matrix: Water
Analysis Batch: 64040

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			1.90	1.898		mg/L		100	90 - 110		

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 64963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-1	MW-8	Total/NA	Ground Water	8260C	
310-40985-2	MW-26D	Total/NA	Ground Water	8260C	
LCS 310-64963/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-64963/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 65117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-5	Trip Blank	Total/NA	Water	8260C	
LCS 310-65117/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-65117/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 65150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-3	MW-61	Total/NA	Ground Water	8260C	
310-40985-4	MW-63	Total/NA	Ground Water	8260C	
LCS 310-65150/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-65150/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 65314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-2	MW-26D	Total/NA	Ground Water	9056A	
310-40985-2 MS	MW-26D	Total/NA	Ground Water	9056A	
310-40985-2 MSD	MW-26D	Total/NA	Ground Water	9056A	
310-40985-3	MW-61	Total/NA	Ground Water	9056A	
310-40985-4	MW-63	Total/NA	Ground Water	9056A	
LCS 310-65314/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-65314/3	Method Blank	Total/NA	Water	9056A	

Analysis Batch: 65315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-1	MW-8	Total/NA	Ground Water	9056A	
LCS 310-65315/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-65315/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 64092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-1	MW-8	Total/NA	Ground Water	3010A	
310-40985-2	MW-26D	Total/NA	Ground Water	3010A	
310-40985-3	MW-61	Total/NA	Ground Water	3010A	
310-40985-3 DU	MW-61	Total/NA	Ground Water	3010A	
310-40985-4	MW-63	Total/NA	Ground Water	3010A	
310-40985-4 MS	MW-63	Total/NA	Ground Water	3010A	
LCS 310-64092/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-64092/1-A	Method Blank	Total/NA	Water	3010A	

Metals (Continued)

Analysis Batch: 64239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-1	MW-8	Total/NA	Ground Water	6010C	64092
310-40985-2	MW-26D	Total/NA	Ground Water	6010C	64092
310-40985-3	MW-61	Total/NA	Ground Water	6010C	64092
310-40985-3 DU	MW-61	Total/NA	Ground Water	6010C	64092
310-40985-4	MW-63	Total/NA	Ground Water	6010C	64092
310-40985-4 MS	MW-63	Total/NA	Ground Water	6010C	64092
LCS 310-64092/2-A	Lab Control Sample	Total/NA	Water	6010C	64092
MB 310-64092/1-A	Method Blank	Total/NA	Water	6010C	64092

General Chemistry

Analysis Batch: 64040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-1	MW-8	Total/NA	Ground Water	SM 4500 NO3 E	
310-40985-2	MW-26D	Total/NA	Ground Water	SM 4500 NO3 E	
310-40985-3	MW-61	Total/NA	Ground Water	SM 4500 NO3 E	
310-40985-4	MW-63	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-64040/4	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-64040/3	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 64044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-1	MW-8	Total/NA	Ground Water	SM 4500 NO2 B	
310-40985-1 MS	MW-8	Total/NA	Ground Water	SM 4500 NO2 B	
310-40985-1 MSD	MW-8	Total/NA	Ground Water	SM 4500 NO2 B	
310-40985-2	MW-26D	Total/NA	Ground Water	SM 4500 NO2 B	
310-40985-3	MW-61	Total/NA	Ground Water	SM 4500 NO2 B	
310-40985-4	MW-63	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-64044/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-64044/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 64630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-1	MW-8	Total/NA	Ground Water	9060A	
310-40985-2	MW-26D	Total/NA	Ground Water	9060A	

Analysis Batch: 64638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-64638/7	Lab Control Sample	Total/NA	Water	9060A	
MB 310-64638/5	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 64641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-4	MW-63	Total/NA	Ground Water	9060A	
LCS 310-64641/4	Lab Control Sample	Total/NA	Water	9060A	
MB 310-64641/3	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 64957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-40985-3	MW-61	Total/NA	Ground Water	9060A	

General Chemistry (Continued)

Analysis Batch: 64957 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-64957/6	Lab Control Sample	Total/NA	Water	9060A	
MB 310-64957/5	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: MW-8

Lab Sample ID: 310-40985-1
Date Collected: 10/08/14 09:20
Matrix: Ground Water
Date Received: 10/09/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	64963	10/18/14 19:12	SJN	TAL CF
Total/NA	Analysis	9056A		5	65315	10/20/14 15:30	CDD	TAL CF
Total/NA	Prep	3010A			64092	10/10/14 08:47	CJT	TAL CF
Total/NA	Analysis	6010C		1	64239	10/10/14 21:16	OAD	TAL CF
Total/NA	Analysis	9060A		1	64630	10/14/14 14:03	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64044	10/09/14 14:55	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64040	10/09/14 15:00	MDK	TAL CF

Client Sample ID: MW-26D

Lab Sample ID: 310-40985-2
Date Collected: 10/08/14 11:50
Matrix: Ground Water
Date Received: 10/09/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	64963	10/18/14 19:37	SJN	TAL CF
Total/NA	Analysis	9056A		5	65314	10/20/14 20:54	CDD	TAL CF
Total/NA	Prep	3010A			64092	10/10/14 08:47	CJT	TAL CF
Total/NA	Analysis	6010C		1	64239	10/10/14 21:19	OAD	TAL CF
Total/NA	Analysis	9060A		1	64630	10/14/14 14:19	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64044	10/09/14 14:55	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64040	10/09/14 15:01	MDK	TAL CF

Client Sample ID: MW-61

Lab Sample ID: 310-40985-3
Date Collected: 10/08/14 10:30
Matrix: Ground Water
Date Received: 10/09/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65150	10/20/14 06:57	TCH	TAL CF
Total/NA	Analysis	9056A		5	65314	10/20/14 20:54	CDD	TAL CF
Total/NA	Prep	3010A			64092	10/10/14 08:47	CJT	TAL CF
Total/NA	Analysis	6010C		1	64239	10/10/14 21:24	OAD	TAL CF
Total/NA	Analysis	9060A		1	64957	10/16/14 18:16	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64044	10/09/14 14:55	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64040	10/09/14 15:03	MDK	TAL CF

Client Sample ID: MW-63

Lab Sample ID: 310-40985-4
Date Collected: 10/08/14 15:00
Matrix: Ground Water
Date Received: 10/09/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65150	10/20/14 07:23	TCH	TAL CF
Total/NA	Analysis	9056A		5	65314	10/20/14 20:54	CDD	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Client Sample ID: MW-63

Lab Sample ID: 310-40985-4

Date Collected: 10/08/14 15:00
Matrix: Ground Water
Date Received: 10/09/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			64092	10/10/14 08:47	CJT	TAL CF
Total/NA	Analysis	6010C		1	64239	10/10/14 21:28	OAD	TAL CF
Total/NA	Analysis	9060A		1	64641	10/14/14 15:29	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64044	10/09/14 14:55	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64040	10/09/14 15:05	MDK	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-40985-5

Date Collected: 10/08/14 00:00
Matrix: Water
Date Received: 10/09/14 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65117	10/19/14 11:51	TCH	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-15
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14 *
Oregon	NELAP	10	IA100001	09-29-15
Wisconsin	State Program	5	999917270	08-31-15

* Certification renewal pending - certification considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-40985-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt ar
Cedar Falls Facility

310-40985 Chain of Custody

Client: Godder Assoc. Project: Electrolux

City: _____ State: _____

Date: 10-9-14 Receiver's Initials: CH Time (Delivered): 9:12

Temperature Record:

Cooler ID# (If Applicable): Flib 104

Uncorrected Temp: 0.7 °C

Corrected Temp: 0.6 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Andrew T Koff
(Signature)

Your PO #:
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: jpeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red & White Label)	Preservative: HCl (Blue & White Label)	Preservative: NaOH (Orange & White Label)	Preservative: H_2SO_4 Plastic (Yellow & White Labe	Preservative: H_2SO_4 Glass(Yellow & White Label)	Preservative: None (Black & White Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other Specify:Stormwater	Analyze For: 8260 Volatiles	Analyze For: Nitrate, Nitrite	Analyze For: Sulfate, Chloride	Analyze For: TOC	Analyze For: Iron, Manganese	E-mail results	Send QC with report
MW-8	10/8/14	920	6	X			X	X	X		X		X		X						X	X	X	X	X	X	X
MW-26D		1150																								X	X
MW-61		1030																								X	X
MW-63		1500																								X	X
trip Blank			3																							X	X

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	10/8/14	1730						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	10/9/14	9:12						

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-8	310-40985-D-1	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-8	310-40985-E-1	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-26D	310-40985-D-2	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-26D	310-40985-E-2	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-61	310-40985-D-3	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-61	310-40985-E-3	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-63	310-40985-D-4	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-63	310-40985-E-4	Plastic 250ml - with Nitric Acid	<2	_____	_____

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-40985-1
SDG Number: 103-87305

Login Number: 40985
List Number: 1
Creator: Wilson, Cheryl L

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-41134-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
10/22/2014 5:11:36 PM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-41134-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-41134-1

Comments
No additional comments.

Receipt
The samples were received on 10/10/2014 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were -0.5º C and 0.3º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 65150 recovered above the upper control limit for Carbon tetrachloride(24.4%D), 1,1-Dichloropropene(25.5%D), Tetrachloroethene(32.1%D), 1,1,1-Trichloroethane(25.6%D), Trichloroethene(22.5%D), and trans-1,2-Dichloroethene(21.5%D). The LCS associated with this CCV passses CCV criteria for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-65150/3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method(s) 9056A: The following sample was diluted due to the nature of the sample matrix: MW-46 (310-41134-3). Elevated reporting limits (RLs) are provided for chloride.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-41134-1	MW-15	Ground Water	10/09/14 16:30	10/10/14 09:15
310-41134-2	MW-43D	Ground Water	10/09/14 08:45	10/10/14 09:15
310-41134-3	MW-46	Ground Water	10/09/14 12:35	10/10/14 09:15
310-41134-4	MW-47D	Ground Water	10/09/14 10:00	10/10/14 09:15
310-41134-5	MW-57	Ground Water	10/09/14 14:15	10/10/14 09:15
310-41134-6	MW-64	Ground Water	10/09/14 15:40	10/10/14 09:15
310-41134-7	MW-65	Ground Water	10/09/14 11:15	10/10/14 09:15
310-41134-8	Dup-02	Ground Water	10/09/14 00:00	10/10/14 09:15
310-41134-9	Trip Blank	Water	10/09/14 00:00	10/10/14 09:15

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-15 — Lab Sample ID: 310-41134-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	19.2		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	97.6		1.00		ug/L	1		8260C	Total/NA
Sulfate	21.8		5.00		mg/L	5		9056A	Total/NA
Chloride	19.8		5.00		mg/L	5		9056A	Total/NA
Iron	0.144		0.100		mg/L	1		6010C	Total/NA
Manganese	0.0248		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	6.14		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	1.64		0.250		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-43D — Lab Sample ID: 310-41134-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	15.2		5.00		mg/L	5		9056A	Total/NA
Chloride	10.9		5.00		mg/L	5		9056A	Total/NA
Manganese	0.862		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.89		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-46 — Lab Sample ID: 310-41134-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	883		100		ug/L	100		8260C	Total/NA
Trichloroethene	14700		100		ug/L	100		8260C	Total/NA
Sulfate	22.0		5.00		mg/L	5		9056A	Total/NA
Iron	0.234		0.100		mg/L	1		6010C	Total/NA
Manganese	0.772		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.69		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-47D — Lab Sample ID: 310-41134-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	123		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	28800		100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	577		1.00		ug/L	1		8260C	Total/NA
Tetrachloroethene	4.04		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	26700		100		ug/L	100		8260C	Total/NA
Vinyl chloride	567		1.00		ug/L	1		8260C	Total/NA
Sulfate	13.1		5.00		mg/L	5		9056A	Total/NA
Chloride	147		5.00		mg/L	5		9056A	Total/NA
Iron	1.32		0.100		mg/L	1		6010C	Total/NA
Manganese	0.692		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.03		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-57 — Lab Sample ID: 310-41134-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	8.78		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	853		1.00		ug/L	1		8260C	Total/NA
Sulfate	47.0		5.00		mg/L	5		9056A	Total/NA
Chloride	14.6		5.00		mg/L	5		9056A	Total/NA
Iron	0.368		0.100		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-57 (Continued) — Lab Sample ID: 310-41134-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.616		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.07		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-64 — Lab Sample ID: 310-41134-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	62.5		5.00		mg/L	5		9056A	Total/NA
Chloride	14.9		5.00		mg/L	5		9056A	Total/NA
Iron	1.77		0.100		mg/L	1		6010C	Total/NA
Manganese	0.399		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	1.96		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-65 — Lab Sample ID: 310-41134-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	17.1		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	826		1.00		ug/L	1		8260C	Total/NA
Sulfate	1.98		1.00		mg/L	1		9056A	Total/NA
Chloride	3.02		1.00		mg/L	1		9056A	Total/NA
Iron	3.06		0.100		mg/L	1		6010C	Total/NA
Manganese	0.369		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	3.92		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: Dup-02 — Lab Sample ID: 310-41134-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	14.5		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	799		1.00		ug/L	1		8260C	Total/NA
Sulfate	1.88		1.00		mg/L	1		9056A	Total/NA
Chloride	2.23		1.00		mg/L	1		9056A	Total/NA
Iron	2.92		0.100		mg/L	1		6010C	Total/NA
Manganese	0.349		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	3.96		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-41134-9

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-15

Date Collected: 10/09/14 16:30
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 06:32	1
Benzene	<0.500		0.500		ug/L			10/20/14 06:32	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 06:32	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 06:32	1
Bromoform	<5.00		5.00		ug/L			10/20/14 06:32	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 06:32	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 06:32	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 06:32	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 06:32	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 06:32	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 06:32	1
Chloroform	<1.00		1.00		ug/L			10/20/14 06:32	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 06:32	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 06:32	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 06:32	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 06:32	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 06:32	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 06:32	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 06:32	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 06:32	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 06:32	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 06:32	1
cis-1,2-Dichloroethene	**19.2**		1.00		ug/L			10/20/14 06:32	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 06:32	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 06:32	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 06:32	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 06:32	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 06:32	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 06:32	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 06:32	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 06:32	1
Hexane	<1.00		1.00		ug/L			10/20/14 06:32	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 06:32	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 06:32	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 06:32	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 06:32	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
Styrene	<1.00		1.00		ug/L			10/20/14 06:32	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 06:32	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-15

Date Collected: 10/09/14 16:30
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 06:32	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 06:32	1
Toluene	<1.00		1.00		ug/L			10/20/14 06:32	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 06:32	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 06:32	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 06:32	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 06:32	1
Trichloroethene	**97.6**		1.00		ug/L			10/20/14 06:32	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 06:32	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 06:32	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 06:32	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 06:32	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 06:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/20/14 06:32*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 120*		*10/20/14 06:32*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/20/14 06:32*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**21.8**		5.00		mg/L			10/20/14 20:54	5
Chloride	**19.8**		5.00		mg/L			10/20/14 20:54	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.144**		0.100		mg/L		10/13/14 08:44	10/14/14 14:04	1
Manganese	**0.0248**		0.0100		mg/L		10/13/14 08:44	10/14/14 14:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**6.14**		1.00		mg/L			10/14/14 19:32	1
Nitrite as N	<0.100		0.100		mg/L			10/10/14 14:05	1
Nitrate as N	**1.64**		0.250		mg/L			10/10/14 14:08	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-43D

Date Collected: 10/09/14 08:45
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 07:48	1
Benzene	<0.500		0.500		ug/L			10/20/14 07:48	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 07:48	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 07:48	1
Bromoform	<5.00		5.00		ug/L			10/20/14 07:48	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 07:48	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 07:48	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 07:48	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 07:48	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 07:48	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 07:48	1
Chloroform	<1.00		1.00		ug/L			10/20/14 07:48	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 07:48	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 07:48	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 07:48	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 07:48	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 07:48	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 07:48	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 07:48	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 07:48	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 07:48	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 07:48	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 07:48	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 07:48	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 07:48	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 07:48	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 07:48	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 07:48	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 07:48	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 07:48	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 07:48	1
Hexane	<1.00		1.00		ug/L			10/20/14 07:48	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 07:48	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 07:48	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 07:48	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 07:48	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
Styrene	<1.00		1.00		ug/L			10/20/14 07:48	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 07:48	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-43D

Date Collected: 10/09/14 08:45
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 07:48	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 07:48	1
Toluene	<1.00		1.00		ug/L			10/20/14 07:48	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 07:48	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 07:48	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 07:48	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 07:48	1
Trichloroethene	<1.00		1.00		ug/L			10/20/14 07:48	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 07:48	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 07:48	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 07:48	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 07:48	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 07:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/20/14 07:48*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*10/20/14 07:48*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/20/14 07:48*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**15.2**		5.00		mg/L			10/20/14 20:54	5
Chloride	**10.9**		5.00		mg/L			10/20/14 20:54	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/13/14 08:44	10/14/14 14:10	1
Manganese	**0.862**		0.0100		mg/L		10/13/14 08:44	10/14/14 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.89**		1.00		mg/L			10/14/14 22:41	1
Nitrite as N	<0.100		0.100		mg/L			10/10/14 14:05	1
Nitrate as N	<0.100		0.100		mg/L			10/10/14 14:13	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-46

Date Collected: 10/09/14 12:35
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			10/20/14 16:43	100
Benzene	<50.0		50.0		ug/L			10/20/14 16:43	100
Bromobenzene	<100		100		ug/L			10/20/14 16:43	100
Bromochloromethane	<500		500		ug/L			10/20/14 16:43	100
Bromodichloromethane	<100		100		ug/L			10/20/14 16:43	100
Bromoform	<500		500		ug/L			10/20/14 16:43	100
Bromomethane	<400		400		ug/L			10/20/14 16:43	100
2-Butanone (MEK)	<1000		1000		ug/L			10/20/14 16:43	100
n-Butylbenzene	<100		100		ug/L			10/20/14 16:43	100
sec-Butylbenzene	<100		100		ug/L			10/20/14 16:43	100
tert-Butylbenzene	<100		100		ug/L			10/20/14 16:43	100
Carbon disulfide	<100		100		ug/L			10/20/14 16:43	100
Carbon tetrachloride	<200		200		ug/L			10/20/14 16:43	100
Chlorobenzene	<100		100		ug/L			10/20/14 16:43	100
Chlorodibromomethane	<500		500		ug/L			10/20/14 16:43	100
Chloroethane	<400		400		ug/L			10/20/14 16:43	100
Chloroform	<100		100		ug/L			10/20/14 16:43	100
Chloromethane	<300		300		ug/L			10/20/14 16:43	100
2-Chlorotoluene	<100		100		ug/L			10/20/14 16:43	100
4-Chlorotoluene	<100		100		ug/L			10/20/14 16:43	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			10/20/14 16:43	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			10/20/14 16:43	100
Dibromomethane	<100		100		ug/L			10/20/14 16:43	100
1,2-Dichlorobenzene	<100		100		ug/L			10/20/14 16:43	100
1,3-Dichlorobenzene	<100		100		ug/L			10/20/14 16:43	100
1,4-Dichlorobenzene	<100		100		ug/L			10/20/14 16:43	100
Dichlorodifluoromethane	<300		300		ug/L			10/20/14 16:43	100
1,1-Dichloroethane	<100		100		ug/L			10/20/14 16:43	100
1,2-Dichloroethane	<100		100		ug/L			10/20/14 16:43	100
1,1-Dichloroethene	<200		200		ug/L			10/20/14 16:43	100
cis-1,2-Dichloroethene	**883**		100		ug/L			10/20/14 16:43	100
trans-1,2-Dichloroethene	<100		100		ug/L			10/20/14 16:43	100
1,2-Dichloropropane	<100		100		ug/L			10/20/14 16:43	100
1,3-Dichloropropane	<100		100		ug/L			10/20/14 16:43	100
2,2-Dichloropropane	<400		400		ug/L			10/20/14 16:43	100
1,1-Dichloropropene	<100		100		ug/L			10/20/14 16:43	100
cis-1,3-Dichloropropene	<500		500		ug/L			10/20/14 16:43	100
trans-1,3-Dichloropropene	<500		500		ug/L			10/20/14 16:43	100
Ethylbenzene	<100		100		ug/L			10/20/14 16:43	100
Hexachlorobutadiene	<500		500		ug/L			10/20/14 16:43	100
Hexane	<100		100		ug/L			10/20/14 16:43	100
Isopropylbenzene	<100		100		ug/L			10/20/14 16:43	100
p-Isopropyltoluene	<100		100		ug/L			10/20/14 16:43	100
Methylene Chloride	<500		500		ug/L			10/20/14 16:43	100
Methyl tert-butyl ether	<100		100		ug/L			10/20/14 16:43	100
Naphthalene	<500		500		ug/L			10/20/14 16:43	100
N-Propylbenzene	<100		100		ug/L			10/20/14 16:43	100
Styrene	<100		100		ug/L			10/20/14 16:43	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			10/20/14 16:43	100

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-46

Date Collected: 10/09/14 12:35
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			10/20/14 16:43	100
Tetrachloroethene	<100		100		ug/L			10/20/14 16:43	100
Toluene	<100		100		ug/L			10/20/14 16:43	100
1,2,3-Trichlorobenzene	<500		500		ug/L			10/20/14 16:43	100
1,2,4-Trichlorobenzene	<500		500		ug/L			10/20/14 16:43	100
1,1,1-Trichloroethane	<100		100		ug/L			10/20/14 16:43	100
1,1,2-Trichloroethane	<100		100		ug/L			10/20/14 16:43	100
Trichloroethene	**14700**		100		ug/L			10/20/14 16:43	100
Trichlorofluoromethane	<400		400		ug/L			10/20/14 16:43	100
1,2,3-Trichloropropane	<100		100		ug/L			10/20/14 16:43	100
1,2,4-Trimethylbenzene	<100		100		ug/L			10/20/14 16:43	100
1,3,5-Trimethylbenzene	<100		100		ug/L			10/20/14 16:43	100
Vinyl chloride	<100		100		ug/L			10/20/14 16:43	100
Xylenes, Total	<300		300		ug/L			10/20/14 16:43	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*10/20/14 16:43*	*100*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*10/20/14 16:43*	*100*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/20/14 16:43*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**22.0**		5.00		mg/L			10/20/14 20:54	5
Chloride	<5.00		5.00		mg/L			10/20/14 20:54	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.234**		0.100		mg/L		10/13/14 08:44	10/14/14 14:12	1
Manganese	**0.772**		0.0100		mg/L		10/13/14 08:44	10/14/14 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.69**		1.00		mg/L			10/14/14 20:06	1
Nitrite as N	<0.100		0.100		mg/L			10/10/14 14:05	1
Nitrate as N	<0.100		0.100		mg/L			10/10/14 14:14	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-47D

Date Collected: 10/09/14 10:00
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 14:09	1
Benzene	<0.500		0.500		ug/L			10/20/14 14:09	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 14:09	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 14:09	1
Bromoform	<5.00		5.00		ug/L			10/20/14 14:09	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 14:09	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 14:09	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 14:09	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 14:09	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 14:09	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 14:09	1
Chloroform	<1.00		1.00		ug/L			10/20/14 14:09	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 14:09	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 14:09	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 14:09	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 14:09	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 14:09	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 14:09	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 14:09	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 14:09	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 14:09	1
1,1-Dichloroethene	**123**		2.00		ug/L			10/20/14 14:09	1
cis-1,2-Dichloroethene	**28800**		100		ug/L			10/21/14 10:02	100
trans-1,2-Dichloroethene	**577**		1.00		ug/L			10/20/14 14:09	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 14:09	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 14:09	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 14:09	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 14:09	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 14:09	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 14:09	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 14:09	1
Hexane	<1.00		1.00		ug/L			10/20/14 14:09	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 14:09	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 14:09	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 14:09	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 14:09	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
Styrene	<1.00		1.00		ug/L			10/20/14 14:09	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 14:09	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-47D

Date Collected: 10/09/14 10:00
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 14:09	1
Tetrachloroethene	**4.04**		1.00		ug/L			10/20/14 14:09	1
Toluene	<1.00		1.00		ug/L			10/20/14 14:09	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 14:09	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 14:09	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 14:09	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 14:09	1
Trichloroethene	**26700**		100		ug/L			10/21/14 10:02	100
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 14:09	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 14:09	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 14:09	1
Vinyl chloride	**567**		1.00		ug/L			10/20/14 14:09	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/20/14 14:09*	*1*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*10/21/14 10:02*	*100*
Dibromofluoromethane (Surr)	*90*		*75 - 120*		*10/20/14 14:09*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*10/21/14 10:02*	*100*
Toluene-d8 (Surr)	*104*		*80 - 120*		*10/20/14 14:09*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/21/14 10:02*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**13.1**		5.00		mg/L			10/20/14 20:54	5
Chloride	**147**		5.00		mg/L			10/20/14 20:54	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.32**		0.100		mg/L		10/13/14 08:44	10/14/14 14:18	1
Manganese	**0.692**		0.0100		mg/L		10/13/14 08:44	10/14/14 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.03**		1.00		mg/L			10/14/14 20:23	1
Nitrite as N	<0.100		0.100		mg/L			10/10/14 14:05	1
Nitrate as N	<0.100		0.100		mg/L			10/10/14 14:20	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-57

Date Collected: 10/09/14 14:15
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 14:35	1
Benzene	<0.500		0.500		ug/L			10/20/14 14:35	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 14:35	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 14:35	1
Bromoform	<5.00		5.00		ug/L			10/20/14 14:35	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 14:35	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 14:35	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 14:35	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 14:35	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 14:35	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 14:35	1
Chloroform	<1.00		1.00		ug/L			10/20/14 14:35	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 14:35	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 14:35	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 14:35	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 14:35	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 14:35	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 14:35	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 14:35	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 14:35	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 14:35	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 14:35	1
cis-1,2-Dichloroethene	**8.78**		1.00		ug/L			10/21/14 09:39	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 14:35	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 14:35	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 14:35	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 14:35	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 14:35	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 14:35	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 14:35	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 14:35	1
Hexane	<1.00		1.00		ug/L			10/20/14 14:35	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 14:35	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 14:35	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 14:35	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 14:35	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
Styrene	<1.00		1.00		ug/L			10/20/14 14:35	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 14:35	1

Client Sample ID: MW-57

Lab Sample ID: 310-41134-5

Date Collected: 10/09/14 14:15

Matrix: Ground Water

Date Received: 10/10/14 09:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 14:35	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 14:35	1
Toluene	<1.00		1.00		ug/L			10/20/14 14:35	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 14:35	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 14:35	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 14:35	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 14:35	1
Trichloroethene	**853**		1.00		ug/L			10/21/14 09:39	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 14:35	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 14:35	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 14:35	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 14:35	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*10/20/14 14:35*	*1*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*		*10/21/14 09:39*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*10/20/14 14:35*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*10/21/14 09:39*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/20/14 14:35*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*10/21/14 09:39*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**47.0**		5.00		mg/L			10/20/14 20:54	5
Chloride	**14.6**		5.00		mg/L			10/20/14 20:54	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.368**		0.100		mg/L		10/13/14 08:44	10/14/14 14:20	1
Manganese	**0.616**		0.0100		mg/L		10/13/14 08:44	10/14/14 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.07**		1.00		mg/L			10/14/14 20:40	1
Nitrite as N	<0.100		0.100		mg/L			10/10/14 14:05	1
Nitrate as N	<0.100		0.100		mg/L			10/10/14 14:21	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-64

Lab Sample ID: 310-41134-6

Date Collected: 10/09/14 15:40
Date Received: 10/10/14 09:15

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 15:00	1
Benzene	<0.500		0.500		ug/L			10/20/14 15:00	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 15:00	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 15:00	1
Bromoform	<5.00		5.00		ug/L			10/20/14 15:00	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 15:00	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 15:00	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 15:00	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 15:00	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 15:00	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 15:00	1
Chloroform	<1.00		1.00		ug/L			10/20/14 15:00	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 15:00	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 15:00	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 15:00	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 15:00	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 15:00	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 15:00	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 15:00	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 15:00	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 15:00	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 15:00	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/21/14 09:17	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 15:00	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 15:00	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 15:00	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 15:00	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 15:00	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 15:00	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 15:00	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 15:00	1
Hexane	<1.00		1.00		ug/L			10/20/14 15:00	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 15:00	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 15:00	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 15:00	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 15:00	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
Styrene	<1.00		1.00		ug/L			10/20/14 15:00	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 15:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-64

Date Collected: 10/09/14 15:40
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-6

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 15:00	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 15:00	1
Toluene	<1.00		1.00		ug/L			10/20/14 15:00	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 15:00	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 15:00	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 15:00	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 15:00	1
Trichloroethene	<1.00		1.00		ug/L			10/21/14 09:17	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 15:00	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 15:00	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 15:00	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 15:00	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/20/14 15:00*	*1*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*		*10/21/14 09:17*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*10/20/14 15:00*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*10/21/14 09:17*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/20/14 15:00*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/21/14 09:17*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**62.5**		5.00		mg/L			10/20/14 20:54	5
Chloride	**14.9**		5.00		mg/L			10/20/14 20:54	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.77**		0.100		mg/L		10/13/14 08:44	10/14/14 14:22	1
Manganese	**0.399**		0.0100		mg/L		10/13/14 08:44	10/14/14 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.96**		1.00		mg/L			10/14/14 21:36	1
Nitrite as N	<0.100		0.100		mg/L			10/10/14 14:05	1
Nitrate as N	<0.100		0.100		mg/L			10/10/14 14:23	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-65

Date Collected: 10/09/14 11:15
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-7

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 15:26	1
Benzene	<0.500		0.500		ug/L			10/20/14 15:26	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 15:26	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 15:26	1
Bromoform	<5.00		5.00		ug/L			10/20/14 15:26	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 15:26	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 15:26	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 15:26	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 15:26	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 15:26	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 15:26	1
Chloroform	<1.00		1.00		ug/L			10/20/14 15:26	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 15:26	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 15:26	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 15:26	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 15:26	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 15:26	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 15:26	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 15:26	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 15:26	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 15:26	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 15:26	1
cis-1,2-Dichloroethene	**17.1**		1.00		ug/L			10/20/14 15:26	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 15:26	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 15:26	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 15:26	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 15:26	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 15:26	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 15:26	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 15:26	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 15:26	1
Hexane	<1.00		1.00		ug/L			10/20/14 15:26	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 15:26	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 15:26	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 15:26	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 15:26	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
Styrene	<1.00		1.00		ug/L			10/20/14 15:26	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 15:26	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-65
Date Collected: 10/09/14 11:15
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-7
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 15:26	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 15:26	1
Toluene	<1.00		1.00		ug/L			10/20/14 15:26	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 15:26	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 15:26	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 15:26	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 15:26	1
Trichloroethene	**826**		1.00		ug/L			10/20/14 15:26	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 15:26	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 15:26	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 15:26	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 15:26	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/20/14 15:26*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*10/20/14 15:26*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*10/20/14 15:26*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1.98**		1.00		mg/L			10/20/14 21:56	1
Chloride	**3.02**		1.00		mg/L			10/20/14 21:56	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**3.06**		0.100		mg/L		10/13/14 08:44	10/14/14 14:24	1
Manganese	**0.369**		0.0100		mg/L		10/13/14 08:44	10/14/14 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.92**		1.00		mg/L			10/14/14 21:52	1
Nitrite as N	<0.100		0.100		mg/L			10/10/14 14:05	1
Nitrate as N	<0.100		0.100		mg/L			10/10/14 14:25	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: Dup-02

Date Collected: 10/09/14 00:00
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-8

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 15:51	1
Benzene	<0.500		0.500		ug/L			10/20/14 15:51	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 15:51	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 15:51	1
Bromoform	<5.00		5.00		ug/L			10/20/14 15:51	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 15:51	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 15:51	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 15:51	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 15:51	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 15:51	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 15:51	1
Chloroform	<1.00		1.00		ug/L			10/20/14 15:51	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 15:51	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 15:51	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 15:51	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 15:51	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 15:51	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 15:51	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 15:51	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 15:51	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 15:51	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 15:51	1
cis-1,2-Dichloroethene	**14.5**		1.00		ug/L			10/20/14 15:51	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 15:51	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 15:51	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 15:51	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 15:51	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 15:51	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 15:51	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 15:51	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 15:51	1
Hexane	<1.00		1.00		ug/L			10/20/14 15:51	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 15:51	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 15:51	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 15:51	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 15:51	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
Styrene	<1.00		1.00		ug/L			10/20/14 15:51	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 15:51	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: Dup-02

Date Collected: 10/09/14 00:00
Date Received: 10/10/14 09:15

Lab Sample ID: 310-41134-8

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 15:51	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 15:51	1
Toluene	<1.00		1.00		ug/L			10/20/14 15:51	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 15:51	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 15:51	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 15:51	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 15:51	1
Trichloroethene	**799**		1.00		ug/L			10/20/14 15:51	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 15:51	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 15:51	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 15:51	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 15:51	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*10/20/14 15:51*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 120*		*10/20/14 15:51*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/20/14 15:51*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1.88**		1.00		mg/L			10/20/14 21:56	1
Chloride	**2.23**		1.00		mg/L			10/20/14 21:56	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**2.92**		0.100		mg/L		10/13/14 08:44	10/14/14 14:26	1
Manganese	**0.349**		0.0100		mg/L		10/13/14 08:44	10/14/14 14:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.96**		1.00		mg/L			10/14/14 22:09	1
Nitrite as N	<0.100		0.100		mg/L			10/10/14 14:05	1
Nitrate as N	<0.100		0.100		mg/L			10/10/14 14:26	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-41134-9

Date Collected: 10/09/14 00:00
Matrix: Water
Date Received: 10/10/14 09:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 11:12	1
Benzene	<0.500		0.500		ug/L			10/20/14 11:12	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 11:12	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 11:12	1
Bromoform	<5.00		5.00		ug/L			10/20/14 11:12	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 11:12	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 11:12	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 11:12	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 11:12	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 11:12	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 11:12	1
Chloroform	<1.00		1.00		ug/L			10/20/14 11:12	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 11:12	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 11:12	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 11:12	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 11:12	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 11:12	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 11:12	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 11:12	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 11:12	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 11:12	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 11:12	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 11:12	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 11:12	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 11:12	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 11:12	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 11:12	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 11:12	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 11:12	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 11:12	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 11:12	1
Hexane	<1.00		1.00		ug/L			10/20/14 11:12	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 11:12	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 11:12	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 11:12	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 11:12	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
Styrene	<1.00		1.00		ug/L			10/20/14 11:12	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 11:12	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-41134-9

Date Collected: 10/09/14 00:00
Matrix: Water
Date Received: 10/10/14 09:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 11:12	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 11:12	1
Toluene	<1.00		1.00		ug/L			10/20/14 11:12	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 11:12	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 11:12	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 11:12	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 11:12	1
Trichloroethene	<1.00		1.00		ug/L			10/20/14 11:12	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 11:12	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 11:12	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 11:12	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 11:12	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 11:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*10/20/14 11:12*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*10/20/14 11:12*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/20/14 11:12*	*1*

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-41134-1	MW-15	98	98	96
310-41134-2	MW-43D	98	100	96
310-41134-3	MW-46	99	101	96
310-41134-4	MW-47D	98	90	104
310-41134-4	MW-47D	100	99	97
310-41134-5	MW-57	99	101	97
310-41134-5	MW-57	101	107	98
310-41134-6	MW-64	98	99	96
310-41134-6	MW-64	102	102	97
310-41134-7	MW-65	98	100	99
310-41134-8	Dup-02	99	98	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-41134-9	Trip Blank	99	100	96
LCS 310-65150/4	Lab Control Sample	100	101	96
LCS 310-65166/4	Lab Control Sample	102	95	95
LCS 310-65328/4	Lab Control Sample	106	105	99
MB 310-65150/7	Method Blank	98	102	96
MB 310-65166/7	Method Blank	100	100	96
MB 310-65328/7	Method Blank	100	101	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-65150/7
Matrix: Water
Analysis Batch: 65150

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/19/14 23:19	1
Benzene	<0.500		0.500		ug/L			10/19/14 23:19	1
Bromobenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Bromochloromethane	<5.00		5.00		ug/L			10/19/14 23:19	1
Bromodichloromethane	<1.00		1.00		ug/L			10/19/14 23:19	1
Bromoform	<5.00		5.00		ug/L			10/19/14 23:19	1
Bromomethane	<4.00		4.00		ug/L			10/19/14 23:19	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/19/14 23:19	1
n-Butylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Carbon disulfide	<1.00		1.00		ug/L			10/19/14 23:19	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/19/14 23:19	1
Chlorobenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/19/14 23:19	1
Chloroethane	<4.00		4.00		ug/L			10/19/14 23:19	1
Chloroform	<1.00		1.00		ug/L			10/19/14 23:19	1
Chloromethane	<3.00		3.00		ug/L			10/19/14 23:19	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/19/14 23:19	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/19/14 23:19	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/19/14 23:19	1
Dibromomethane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/19/14 23:19	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/19/14 23:19	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/19/14 23:19	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/19/14 23:19	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/19/14 23:19	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/19/14 23:19	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/19/14 23:19	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/19/14 23:19	1
Ethylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/19/14 23:19	1
Hexane	<1.00		1.00		ug/L			10/19/14 23:19	1
Isopropylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/19/14 23:19	1
Methylene Chloride	<5.00		5.00		ug/L			10/19/14 23:19	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/19/14 23:19	1
Naphthalene	<5.00		5.00		ug/L			10/19/14 23:19	1
N-Propylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Styrene	<1.00		1.00		ug/L			10/19/14 23:19	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65150/7
Matrix: Water
Analysis Batch: 65150

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
Tetrachloroethene	<1.00		1.00		ug/L			10/19/14 23:19	1
Toluene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/19/14 23:19	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/19/14 23:19	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/19/14 23:19	1
Trichloroethene	<1.00		1.00		ug/L			10/19/14 23:19	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/19/14 23:19	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/19/14 23:19	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/19/14 23:19	1
Vinyl chloride	<1.00		1.00		ug/L			10/19/14 23:19	1
Xylenes, Total	<3.00		3.00		ug/L			10/19/14 23:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/19/14 23:19*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*10/19/14 23:19*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/19/14 23:19*	*1*

Lab Sample ID: LCS 310-65150/4
Matrix: Water
Analysis Batch: 65150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	33.21		ug/L		83	60 - 150
Benzene	20.0	19.25		ug/L		96	70 - 130
Bromobenzene	20.0	18.66		ug/L		93	75 - 130
Bromochloromethane	20.0	20.03		ug/L		100	65 - 145
Bromodichloromethane	20.0	18.48		ug/L		92	60 - 130
Bromoform	20.0	14.22		ug/L		71	30 - 125
Bromomethane	20.0	15.99		ug/L		80	35 - 130
2-Butanone (MEK)	40.0	34.79		ug/L		87	55 - 140
n-Butylbenzene	20.0	19.04		ug/L		95	55 - 135
sec-Butylbenzene	20.0	19.77		ug/L		99	65 - 135
tert-Butylbenzene	20.0	19.64		ug/L		98	60 - 135
Carbon disulfide	20.0	19.01		ug/L		95	40 - 130
Carbon tetrachloride	20.0	19.65		ug/L		98	55 - 130
Chlorobenzene	20.0	18.79		ug/L		94	75 - 125
Chlorodibromomethane	20.0	18.62		ug/L		93	45 - 125
Chloroethane	20.0	20.02		ug/L		100	55 - 135
Chloroform	20.0	18.33		ug/L		92	70 - 125
Chloromethane	20.0	18.08		ug/L		90	30 - 125
2-Chlorotoluene	20.0	19.16		ug/L		96	75 - 135
4-Chlorotoluene	20.0	18.87		ug/L		94	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	14.51		ug/L		73	35 - 130
1,2-Dibromoethane (EDB)	20.0	19.39		ug/L		97	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-65150/4
Matrix: Water
Analysis Batch: 65150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	19.77		ug/L		99	75 - 130
1,2-Dichlorobenzene	20.0	18.07		ug/L		90	65 - 135
1,3-Dichlorobenzene	20.0	18.39		ug/L		92	70 - 130
1,4-Dichlorobenzene	20.0	17.72		ug/L		89	60 - 140
Dichlorodifluoromethane	20.0	17.30		ug/L		87	35 - 130
1,1-Dichloroethane	20.0	19.30		ug/L		96	60 - 130
1,2-Dichloroethane	20.0	20.24		ug/L		101	65 - 140
1,1-Dichloroethene	20.0	19.40		ug/L		97	60 - 135
cis-1,2-Dichloroethene	20.0	19.60		ug/L		98	70 - 135
trans-1,2-Dichloroethene	20.0	20.30		ug/L		101	60 - 145
1,2-Dichloropropane	20.0	19.55		ug/L		98	65 - 130
1,3-Dichloropropane	20.0	19.15		ug/L		96	75 - 125
2,2-Dichloropropane	20.0	17.79		ug/L		89	25 - 120
1,1-Dichloropropene	20.0	20.62		ug/L		103	60 - 140
cis-1,3-Dichloropropene	20.0	18.36		ug/L		92	30 - 120
trans-1,3-Dichloropropene	20.0	16.74		ug/L		84	35 - 120
Ethylbenzene	20.0	19.47		ug/L		97	70 - 130
Hexachlorobutadiene	20.0	19.92		ug/L		100	60 - 135
Hexane	20.0	17.91		ug/L		90	40 - 135
Isopropylbenzene	20.0	19.95		ug/L		100	70 - 125
p-Isopropyltoluene	20.0	19.39		ug/L		97	60 - 140
Methylene Chloride	20.0	18.81		ug/L		94	55 - 145
Methyl tert-butyl ether	20.0	19.53		ug/L		98	50 - 135
Naphthalene	20.0	17.45		ug/L		87	40 - 135
N-Propylbenzene	20.0	19.48		ug/L		97	70 - 135
Styrene	20.0	19.06		ug/L		95	70 - 130
1,1,1,2-Tetrachloroethane	20.0	18.61		ug/L		93	65 - 120
1,1,2,2-Tetrachloroethane	20.0	15.12		ug/L		76	65 - 130
Tetrachloroethene	20.0	21.83		ug/L		109	70 - 135
Toluene	20.0	19.58		ug/L		98	70 - 135
1,2,3-Trichlorobenzene	20.0	18.17		ug/L		91	55 - 130
1,2,4-Trichlorobenzene	20.0	18.02		ug/L		90	40 - 135
1,1,1-Trichloroethane	20.0	20.52		ug/L		103	60 - 125
1,1,2-Trichloroethane	20.0	19.00		ug/L		95	75 - 125
Trichloroethene	20.0	20.78		ug/L		104	70 - 130
Trichlorofluoromethane	20.0	22.80		ug/L		114	55 - 145
1,2,3-Trichloropropane	20.0	16.80		ug/L		84	60 - 150
1,2,4-Trimethylbenzene	20.0	18.82		ug/L		94	70 - 140
1,3,5-Trimethylbenzene	20.0	20.00		ug/L		100	70 - 140
Vinyl chloride	20.0	20.32		ug/L		102	45 - 135
Xylenes, Total	40.0	38.51		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65166/7
Matrix: Water
Analysis Batch: 65166

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 10:46	1
Benzene	<0.500		0.500		ug/L			10/20/14 10:46	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 10:46	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 10:46	1
Bromoform	<5.00		5.00		ug/L			10/20/14 10:46	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 10:46	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 10:46	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 10:46	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 10:46	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 10:46	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 10:46	1
Chloroform	<1.00		1.00		ug/L			10/20/14 10:46	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 10:46	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 10:46	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 10:46	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 10:46	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 10:46	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 10:46	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 10:46	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 10:46	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 10:46	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 10:46	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 10:46	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 10:46	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 10:46	1
Hexane	<1.00		1.00		ug/L			10/20/14 10:46	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 10:46	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 10:46	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 10:46	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 10:46	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Styrene	<1.00		1.00		ug/L			10/20/14 10:46	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65166/7
Matrix: Water
Analysis Batch: 65166

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 10:46	1
Toluene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 10:46	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 10:46	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
Trichloroethene	<1.00		1.00		ug/L			10/20/14 10:46	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 10:46	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 10:46	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*10/20/14 10:46*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*10/20/14 10:46*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/20/14 10:46*	*1*

Lab Sample ID: LCS 310-65166/4
Matrix: Water
Analysis Batch: 65166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	36.20		ug/L		91	60 - 150
Benzene	20.0	19.03		ug/L		95	70 - 130
Bromobenzene	20.0	20.09		ug/L		100	75 - 130
Bromochloromethane	20.0	21.21		ug/L		106	65 - 145
Bromodichloromethane	20.0	21.46		ug/L		107	60 - 130
Bromoform	20.0	15.06		ug/L		75	30 - 125
Bromomethane	20.0	19.99		ug/L		100	35 - 130
2-Butanone (MEK)	40.0	35.74		ug/L		89	55 - 140
n-Butylbenzene	20.0	22.11		ug/L		111	55 - 135
sec-Butylbenzene	20.0	21.21		ug/L		106	65 - 135
tert-Butylbenzene	20.0	20.93		ug/L		105	60 - 135
Carbon disulfide	20.0	19.44		ug/L		97	40 - 130
Carbon tetrachloride	20.0	21.24		ug/L		106	55 - 130
Chlorobenzene	20.0	19.81		ug/L		99	75 - 125
Chlorodibromomethane	20.0	21.14		ug/L		106	45 - 125
Chloroethane	20.0	23.74		ug/L		119	55 - 135
Chloroform	20.0	18.83		ug/L		94	70 - 125
Chloromethane	20.0	21.78		ug/L		109	30 - 125
2-Chlorotoluene	20.0	19.75		ug/L		99	75 - 135
4-Chlorotoluene	20.0	20.20		ug/L		101	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	14.99		ug/L		75	35 - 130
1,2-Dibromoethane (EDB)	20.0	22.37		ug/L		112	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-65166/4
Matrix: Water
Analysis Batch: 65166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	21.01		ug/L		105	75 - 130
1,2-Dichlorobenzene	20.0	19.26		ug/L		96	65 - 135
1,3-Dichlorobenzene	20.0	19.44		ug/L		97	70 - 130
1,4-Dichlorobenzene	20.0	18.98		ug/L		95	60 - 140
Dichlorodifluoromethane	20.0	24.58		ug/L		123	35 - 130
1,1-Dichloroethane	20.0	19.90		ug/L		100	60 - 130
1,2-Dichloroethane	20.0	21.02		ug/L		105	65 - 140
1,1-Dichloroethene	20.0	21.07		ug/L		105	60 - 135
cis-1,2-Dichloroethene	20.0	20.21		ug/L		101	70 - 135
trans-1,2-Dichloroethene	20.0	20.58		ug/L		103	60 - 145
1,2-Dichloropropane	20.0	21.69		ug/L		108	65 - 130
1,3-Dichloropropane	20.0	22.28		ug/L		111	75 - 125
2,2-Dichloropropane	20.0	21.41		ug/L		107	25 - 120
1,1-Dichloropropene	20.0	21.17		ug/L		106	60 - 140
cis-1,3-Dichloropropene	20.0	21.53		ug/L		108	30 - 120
trans-1,3-Dichloropropene	20.0	20.12		ug/L		101	35 - 120
Ethylbenzene	20.0	20.73		ug/L		104	70 - 130
Hexachlorobutadiene	20.0	21.64		ug/L		108	60 - 135
Hexane	20.0	21.34		ug/L		107	40 - 135
Isopropylbenzene	20.0	21.45		ug/L		107	70 - 125
p-Isopropyltoluene	20.0	21.53		ug/L		108	60 - 140
Methylene Chloride	20.0	19.35		ug/L		97	55 - 145
Methyl tert-butyl ether	20.0	20.96		ug/L		105	50 - 135
Naphthalene	20.0	19.98		ug/L		100	40 - 135
N-Propylbenzene	20.0	20.68		ug/L		103	70 - 135
Styrene	20.0	20.26		ug/L		101	70 - 130
1,1,1,2-Tetrachloroethane	20.0	19.61		ug/L		98	65 - 120
1,1,2,2-Tetrachloroethane	20.0	15.96		ug/L		80	65 - 130
Tetrachloroethene	20.0	23.89		ug/L		119	70 - 135
Toluene	20.0	22.72		ug/L		114	70 - 135
1,2,3-Trichlorobenzene	20.0	20.42		ug/L		102	55 - 130
1,2,4-Trichlorobenzene	20.0	20.21		ug/L		101	40 - 135
1,1,1-Trichloroethane	20.0	21.88		ug/L		109	60 - 125
1,1,2-Trichloroethane	20.0	21.30		ug/L		107	75 - 125
Trichloroethene	20.0	22.61		ug/L		113	70 - 130
Trichlorofluoromethane	20.0	24.92		ug/L		125	55 - 145
1,2,3-Trichloropropane	20.0	17.14		ug/L		86	60 - 150
1,2,4-Trimethylbenzene	20.0	20.22		ug/L		101	70 - 140
1,3,5-Trimethylbenzene	20.0	21.41		ug/L		107	70 - 140
Vinyl chloride	20.0	24.47		ug/L		122	45 - 135
Xylenes, Total	40.0	41.98		ug/L		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*
Dibromofluoromethane (Surr)	*95*		*75 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65328/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65328

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/21/14 08:54	1
Trichloroethene	<1.00		1.00		ug/L			10/21/14 08:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*10/21/14 08:54*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*10/21/14 08:54*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*10/21/14 08:54*	*1*

Lab Sample ID: LCS 310-65328/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65328

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	20.0	20.40		ug/L		102	70 - 135
Trichloroethene	20.0	20.16		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*
Dibromofluoromethane (Surr)	*105*		*75 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-65314/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			10/20/14 20:54	1
Chloride	<1.00		1.00		mg/L			10/20/14 20:54	1

Lab Sample ID: LCS 310-65314/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.782		mg/L		104	90 - 110
Chloride	7.50	7.865		mg/L		105	90 - 110

Lab Sample ID: MB 310-65317/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65317

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			10/21/14 05:00	1
Chloride	<1.00		1.00		mg/L			10/21/14 05:00	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 310-65317/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65317

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.767		mg/L		104	90 - 110
Chloride	7.50	7.840		mg/L		105	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-64298/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64605 — **Prep Batch: 64298**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/13/14 08:44	10/14/14 14:00	1
Manganese	<0.0100		0.0100		mg/L		10/13/14 08:44	10/14/14 14:00	1

Lab Sample ID: LCS 310-64298/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64605 — **Prep Batch: 64298**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	1.00	1.085		mg/L		109	85 - 115

Lab Sample ID: LCS 310-64298/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64819 — **Prep Batch: 64298**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.177		mg/L		109	85 - 110

Lab Sample ID: 310-41134-1 MS — **Client Sample ID: MW-15**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64605 — **Prep Batch: 64298**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.144		2.00	2.534		mg/L		119	75 - 125
Manganese	0.0248		1.00	1.103		mg/L		108	80 - 115

Lab Sample ID: 310-41134-1 MSD — **Client Sample ID: MW-15**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64605 — **Prep Batch: 64298**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.144		2.00	2.390		mg/L		112	75 - 125	6	20
Manganese	0.0248		1.00	1.007		mg/L		98	80 - 115	9	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-64641/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			10/14/14 15:45	1

Lab Sample ID: LCS 310-64641/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	5.169		mg/L		103	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-64216/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			10/10/14 14:05	1

Lab Sample ID: LCS 310-64216/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64216

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.4748		mg/L		95	90 - 110

Lab Sample ID: 310-41134-1 MS — **Client Sample ID: MW-15**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64216

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	<0.100		0.400	0.5294	F1	mg/L		132	75 - 125

Lab Sample ID: 310-41134-1 MSD — **Client Sample ID: MW-15**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64216

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.100		0.400	0.4949		mg/L		124	75 - 125	7	10

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-64209/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			10/10/14 14:06	1

Method: SM 4500 NO3 E - Nitrogen, Nitrate (Continued)

Lab Sample ID: LCS 310-64209/3
Matrix: Water
Analysis Batch: 64209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			1.90	1.881		mg/L		99	90 - 110		

Lab Sample ID: 310-41134-1 MS
Matrix: Ground Water
Analysis Batch: 64209

Client Sample ID: MW-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	1.64		0.500	2.098		mg/L		91	75 - 125		

Lab Sample ID: 310-41134-1 MSD
Matrix: Ground Water
Analysis Batch: 64209

Client Sample ID: MW-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	1.64		0.500	2.353	F1	mg/L		142	75 - 125	11	20

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 65150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-1	MW-15	Total/NA	Ground Water	8260C	
310-41134-2	MW-43D	Total/NA	Ground Water	8260C	
LCS 310-65150/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-65150/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 65166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-3	MW-46	Total/NA	Ground Water	8260C	
310-41134-4	MW-47D	Total/NA	Ground Water	8260C	
310-41134-5	MW-57	Total/NA	Ground Water	8260C	
310-41134-6	MW-64	Total/NA	Ground Water	8260C	
310-41134-7	MW-65	Total/NA	Ground Water	8260C	
310-41134-8	Dup-02	Total/NA	Ground Water	8260C	
310-41134-9	Trip Blank	Total/NA	Water	8260C	
LCS 310-65166/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-65166/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 65328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-4	MW-47D	Total/NA	Ground Water	8260C	
310-41134-5	MW-57	Total/NA	Ground Water	8260C	
310-41134-6	MW-64	Total/NA	Ground Water	8260C	
LCS 310-65328/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-65328/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 65314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-1	MW-15	Total/NA	Ground Water	9056A	
310-41134-2	MW-43D	Total/NA	Ground Water	9056A	
310-41134-3	MW-46	Total/NA	Ground Water	9056A	
310-41134-4	MW-47D	Total/NA	Ground Water	9056A	
310-41134-5	MW-57	Total/NA	Ground Water	9056A	
310-41134-6	MW-64	Total/NA	Ground Water	9056A	
LCS 310-65314/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-65314/3	Method Blank	Total/NA	Water	9056A	

Analysis Batch: 65317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-7	MW-65	Total/NA	Ground Water	9056A	
310-41134-8	Dup-02	Total/NA	Ground Water	9056A	
LCS 310-65317/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-65317/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 64298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-1	MW-15	Total/NA	Ground Water	3010A	

Metals (Continued)

Prep Batch: 64298 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-1 MS	MW-15	Total/NA	Ground Water	3010A	
310-41134-1 MSD	MW-15	Total/NA	Ground Water	3010A	
310-41134-2	MW-43D	Total/NA	Ground Water	3010A	
310-41134-3	MW-46	Total/NA	Ground Water	3010A	
310-41134-4	MW-47D	Total/NA	Ground Water	3010A	
310-41134-5	MW-57	Total/NA	Ground Water	3010A	
310-41134-6	MW-64	Total/NA	Ground Water	3010A	
310-41134-7	MW-65	Total/NA	Ground Water	3010A	
310-41134-8	Dup-02	Total/NA	Ground Water	3010A	
LCS 310-64298/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-64298/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 64605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-1	MW-15	Total/NA	Ground Water	6010C	64298
310-41134-1 MS	MW-15	Total/NA	Ground Water	6010C	64298
310-41134-1 MSD	MW-15	Total/NA	Ground Water	6010C	64298
310-41134-2	MW-43D	Total/NA	Ground Water	6010C	64298
310-41134-3	MW-46	Total/NA	Ground Water	6010C	64298
310-41134-4	MW-47D	Total/NA	Ground Water	6010C	64298
310-41134-5	MW-57	Total/NA	Ground Water	6010C	64298
310-41134-6	MW-64	Total/NA	Ground Water	6010C	64298
310-41134-7	MW-65	Total/NA	Ground Water	6010C	64298
310-41134-8	Dup-02	Total/NA	Ground Water	6010C	64298
LCS 310-64298/2-A	Lab Control Sample	Total/NA	Water	6010C	64298
MB 310-64298/1-A	Method Blank	Total/NA	Water	6010C	64298

Analysis Batch: 64819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-64298/2-A	Lab Control Sample	Total/NA	Water	6010C	64298

General Chemistry

Analysis Batch: 64209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-1	MW-15	Total/NA	Ground Water	SM 4500 NO3 E	
310-41134-1 MS	MW-15	Total/NA	Ground Water	SM 4500 NO3 E	
310-41134-1 MSD	MW-15	Total/NA	Ground Water	SM 4500 NO3 E	
310-41134-2	MW-43D	Total/NA	Ground Water	SM 4500 NO3 E	
310-41134-3	MW-46	Total/NA	Ground Water	SM 4500 NO3 E	
310-41134-4	MW-47D	Total/NA	Ground Water	SM 4500 NO3 E	
310-41134-5	MW-57	Total/NA	Ground Water	SM 4500 NO3 E	
310-41134-6	MW-64	Total/NA	Ground Water	SM 4500 NO3 E	
310-41134-7	MW-65	Total/NA	Ground Water	SM 4500 NO3 E	
310-41134-8	Dup-02	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-64209/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-64209/7	Method Blank	Total/NA	Water	SM 4500 NO3 E	

General Chemistry (Continued)

Analysis Batch: 64216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-1	MW-15	Total/NA	Ground Water	SM 4500 NO2 B	
310-41134-1 MS	MW-15	Total/NA	Ground Water	SM 4500 NO2 B	
310-41134-1 MSD	MW-15	Total/NA	Ground Water	SM 4500 NO2 B	
310-41134-2	MW-43D	Total/NA	Ground Water	SM 4500 NO2 B	
310-41134-3	MW-46	Total/NA	Ground Water	SM 4500 NO2 B	
310-41134-4	MW-47D	Total/NA	Ground Water	SM 4500 NO2 B	
310-41134-5	MW-57	Total/NA	Ground Water	SM 4500 NO2 B	
310-41134-6	MW-64	Total/NA	Ground Water	SM 4500 NO2 B	
310-41134-7	MW-65	Total/NA	Ground Water	SM 4500 NO2 B	
310-41134-8	Dup-02	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-64216/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-64216/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 64632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41134-1	MW-15	Total/NA	Ground Water	9060A	
310-41134-2	MW-43D	Total/NA	Ground Water	9060A	
310-41134-3	MW-46	Total/NA	Ground Water	9060A	
310-41134-4	MW-47D	Total/NA	Ground Water	9060A	
310-41134-5	MW-57	Total/NA	Ground Water	9060A	
310-41134-6	MW-64	Total/NA	Ground Water	9060A	
310-41134-7	MW-65	Total/NA	Ground Water	9060A	
310-41134-8	Dup-02	Total/NA	Ground Water	9060A	

Analysis Batch: 64641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-64641/4	Lab Control Sample	Total/NA	Water	9060A	
MB 310-64641/3	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-15

Lab Sample ID: 310-41134-1
Date Collected: 10/09/14 16:30
Matrix: Ground Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65150	10/20/14 06:32	TCH	TAL CF
Total/NA	Analysis	9056A		5	65314	10/20/14 20:54	CDD	TAL CF
Total/NA	Prep	3010A			64298	10/13/14 08:44	CJT	TAL CF
Total/NA	Analysis	6010C		1	64605	10/14/14 14:04	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 19:32	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64216	10/10/14 14:05	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64209	10/10/14 14:08	KMS	TAL CF

Client Sample ID: MW-43D

Lab Sample ID: 310-41134-2
Date Collected: 10/09/14 08:45
Matrix: Ground Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65150	10/20/14 07:48	TCH	TAL CF
Total/NA	Analysis	9056A		5	65314	10/20/14 20:54	CDD	TAL CF
Total/NA	Prep	3010A			64298	10/13/14 08:44	CJT	TAL CF
Total/NA	Analysis	6010C		1	64605	10/14/14 14:10	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 22:41	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64216	10/10/14 14:05	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64209	10/10/14 14:13	KMS	TAL CF

Client Sample ID: MW-46

Lab Sample ID: 310-41134-3
Date Collected: 10/09/14 12:35
Matrix: Ground Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	65166	10/20/14 16:43	SJN	TAL CF
Total/NA	Analysis	9056A		5	65314	10/20/14 20:54	CDD	TAL CF
Total/NA	Prep	3010A			64298	10/13/14 08:44	CJT	TAL CF
Total/NA	Analysis	6010C		1	64605	10/14/14 14:12	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 20:06	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64216	10/10/14 14:05	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64209	10/10/14 14:14	KMS	TAL CF

Client Sample ID: MW-47D

Lab Sample ID: 310-41134-4
Date Collected: 10/09/14 10:00
Matrix: Ground Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65166	10/20/14 14:09	SJN	TAL CF
Total/NA	Analysis	8260C		100	65328	10/21/14 10:02	SJN	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-47D

Lab Sample ID: 310-41134-4
Date Collected: 10/09/14 10:00
Matrix: Ground Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	65314	10/20/14 20:54	CDD	TAL CF
Total/NA	Prep	3010A			64298	10/13/14 08:44	CJT	TAL CF
Total/NA	Analysis	6010C		1	64605	10/14/14 14:18	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 20:23	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64216	10/10/14 14:05	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64209	10/10/14 14:20	KMS	TAL CF

Client Sample ID: MW-57

Lab Sample ID: 310-41134-5
Date Collected: 10/09/14 14:15
Matrix: Ground Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65166	10/20/14 14:35	SJN	TAL CF
Total/NA	Analysis	8260C		1	65328	10/21/14 09:39	SJN	TAL CF
Total/NA	Analysis	9056A		5	65314	10/20/14 20:54	CDD	TAL CF
Total/NA	Prep	3010A			64298	10/13/14 08:44	CJT	TAL CF
Total/NA	Analysis	6010C		1	64605	10/14/14 14:20	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 20:40	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64216	10/10/14 14:05	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64209	10/10/14 14:21	KMS	TAL CF

Client Sample ID: MW-64

Lab Sample ID: 310-41134-6
Date Collected: 10/09/14 15:40
Matrix: Ground Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65166	10/20/14 15:00	SJN	TAL CF
Total/NA	Analysis	8260C		1	65328	10/21/14 09:17	SJN	TAL CF
Total/NA	Analysis	9056A		5	65314	10/20/14 20:54	CDD	TAL CF
Total/NA	Prep	3010A			64298	10/13/14 08:44	CJT	TAL CF
Total/NA	Analysis	6010C		1	64605	10/14/14 14:22	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 21:36	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64216	10/10/14 14:05	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64209	10/10/14 14:23	KMS	TAL CF

Client Sample ID: MW-65

Lab Sample ID: 310-41134-7
Date Collected: 10/09/14 11:15
Matrix: Ground Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65166	10/20/14 15:26	SJN	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Client Sample ID: MW-65

Lab Sample ID: 310-41134-7

Date Collected: 10/09/14 11:15
Matrix: Ground Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	65317	10/20/14 21:56	CDD	TAL CF
Total/NA	Prep	3010A			64298	10/13/14 08:44	CJT	TAL CF
Total/NA	Analysis	6010C		1	64605	10/14/14 14:24	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 21:52	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64216	10/10/14 14:05	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64209	10/10/14 14:25	KMS	TAL CF

Client Sample ID: Dup-02

Lab Sample ID: 310-41134-8

Date Collected: 10/09/14 00:00
Matrix: Ground Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65166	10/20/14 15:51	SJN	TAL CF
Total/NA	Analysis	9056A		1	65317	10/20/14 21:56	CDD	TAL CF
Total/NA	Prep	3010A			64298	10/13/14 08:44	CJT	TAL CF
Total/NA	Analysis	6010C		1	64605	10/14/14 14:26	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 22:09	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64216	10/10/14 14:05	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64209	10/10/14 14:26	KMS	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-41134-9

Date Collected: 10/09/14 00:00
Matrix: Water
Date Received: 10/10/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65166	10/20/14 11:12	SJN	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-15
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14 *
Oregon	NELAP	10	IA100001	09-29-15
Wisconsin	State Program	5	999917270	08-31-15

* Certification renewal pending - certification considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41134-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt ar Cedar Falls Facility

310-41134 Chain of Custody

Client: Golder Project: Electrolux

City: State:

Date: 10 10 14 Receiver's Initials: TS Time (Delivered): 9:15

Temperature Record:

Cooler ID# (If Applicable): 18

Uncorrected Temp: -0.6 °C

Corrected Temp: -0.5 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [x] IR "G" - 130195822
- [ ] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other:

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other:
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [x] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)*
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Temperature Log Form
Cedar Falls Facility

Client: Cobb Project: electrolux

City: State:

Date: 10/10/14 Receiver's Initials: To Time (Delivered): 8:15

Temperature Record:

Cooler ID# (If Applicable): Cooly

Uncorrected Temp: 0.2 °C

Corrected Temp: 0.3 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [x] IR "G" - 130195822
- [ ] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other:

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other:
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)*

  Vials in the cooler

- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Andrew J Koff
(Signature)

Your PO #:
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: Jpeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:Stormwater	Analyze For: 8260 Volatiles	Nitrate, Nitrite	Sulfate, Chloride	TOC	Iron, Manganese									E-mail results	Send QC with report
MW-15	10/9/14	1830	6	X			X	X	X		X		X		X						X	X	X	X	X									X	X
MW-43D		845																																	
MW-46		1235																																	
MW-47D		1000																																	
MW-57		1415																																	
MW-64		1540																																	
MW-65		1115																																	
Dup-02																																			
Trip Blank			3																																

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	10/9/14	1730						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	10/10/14	9:15						

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-15	310-41134-A-1	Plastic 250ml - with Nitric Acid	<2		
MW-15	310-41134-B-1	Plastic 250ml - with Sulfuric Acid	<2		
MW-43D	310-41134-A-2	Plastic 250ml - with Nitric Acid	<2		
MW-43D	310-41134-B-2	Plastic 250ml - with Sulfuric Acid	<2		
MW-46	310-41134-A-3	Plastic 250ml - with Nitric Acid	<2		
MW-46	310-41134-B-3	Plastic 250ml - with Sulfuric Acid	<2		
MW-47D	310-41134-A-4	Plastic 250ml - with Nitric Acid	<2		
MW-47D	310-41134-B-4	Plastic 250ml - with Sulfuric Acid	<2		
MW-57	310-41134-A-5	Plastic 250ml - with Nitric Acid	<2		
MW-57	310-41134-B-5	Plastic 250ml - with Sulfuric Acid	<2		
MW-64	310-41134-A-6	Plastic 250ml - with Nitric Acid	<2		
MW-64	310-41134-B-6	Plastic 250ml - with Sulfuric Acid	<2		
MW-65	310-41134-A-7	Plastic 250ml - with Nitric Acid	<2		
MW-65	310-41134-B-7	Plastic 250ml - with Sulfuric Acid	<2		
Dup-02	310-41134-A-8	Plastic 250ml - with Nitric Acid	<2		
Dup-02	310-41134-B-8	Plastic 250ml - with Sulfuric Acid	<2		

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-41134-1
SDG Number: 103-87305

Login Number: 41134
List Number: 1
Creator: Wilson, Cheryl L

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-41248-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
10/24/2014 10:01:02 AM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-41248-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-41248-1

Comments
No additional comments.

Receipt
The samples were received on 10/11/2014 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.2º C and 0.3º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 65169 recovered above the upper control limit for Trichlorofluorometane (20.3 %D). The LCS associated with this CCV passes using CCV criteria for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-65169/3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method(s) 9056A: The following sample was diluted due to the nature of the sample matrix: MW-25S (310-41248-3). Elevated reporting limits (RLs) are provided for sulfate.

Method(s) SM 4500 NO3 E: The reference method requires samples to be between a pH of 7-9. The following sample was received at a pH of 6.9: MW-28 (310-41248-5). The sample was adjusted to the appropriate pH in the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-41248-1	MW-19	Ground Water	10/10/14 11:35	10/11/14 09:50
310-41248-2	MW-24	Ground Water	10/10/14 07:40	10/11/14 09:50
310-41248-3	MW-25S	Ground Water	10/10/14 09:40	10/11/14 09:50
310-41248-4	MW-26S	Ground Water	10/10/14 09:00	10/11/14 09:50
310-41248-5	MW-28	Ground Water	10/10/14 10:40	10/11/14 09:50
310-41248-6	MW-29	Ground Water	10/10/14 11:05	10/11/14 09:50
310-41248-7	MW-31	Ground Water	10/10/14 08:30	10/11/14 09:50
310-41248-8	MW-53	Ground Water	10/10/14 08:10	10/11/14 09:50
310-41248-9	Trip Blank	Water	10/10/14 00:00	10/11/14 09:50

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-19 — Lab Sample ID: 310-41248-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	444		200		ug/L	100		8260C	Total/NA
cis-1,2-Dichloroethene	637		100		ug/L	100		8260C	Total/NA
1,1,1-Trichloroethane	660		100		ug/L	100		8260C	Total/NA
Trichloroethene	26300		100		ug/L	100		8260C	Total/NA
Sulfate	53.9		5.00		mg/L	5		9056A	Total/NA
Chloride	16.8		5.00		mg/L	5		9056A	Total/NA
Iron	0.277		0.100		mg/L	1		6010C	Total/NA
Manganese	0.0312		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	3.43		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-24 — Lab Sample ID: 310-41248-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.79		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	64.1		1.00		ug/L	1		8260C	Total/NA
Sulfate	8.67		5.00		mg/L	5		9056A	Total/NA
Chloride	5.30		5.00		mg/L	5		9056A	Total/NA
Iron	0.279		0.100		mg/L	1		6010C	Total/NA
Manganese	0.280		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	4.05		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.875		0.250		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-25S — Lab Sample ID: 310-41248-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4710		1000		ug/L	100		8260C	Total/NA
cis-1,2-Dichloroethene	30400		100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	110		100		ug/L	100		8260C	Total/NA
Vinyl chloride	2890		100		ug/L	100		8260C	Total/NA
Chloride	69.5		5.00		mg/L	5		9056A	Total/NA
Iron	2.71		0.300		mg/L	3		6010C	Total/NA
Manganese	0.206		0.0300		mg/L	3		6010C	Total/NA
Total Organic Carbon	50.7		10.0		mg/L	10		9060A	Total/NA
Nitrate as N	0.123		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-26S — Lab Sample ID: 310-41248-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	959		100		ug/L	100		8260C	Total/NA
Trichloroethene	56000		100		ug/L	100		8260C	Total/NA
Sulfate	46.5		5.00		mg/L	5		9056A	Total/NA
Chloride	61.1		5.00		mg/L	5		9056A	Total/NA
Manganese	0.0285		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.34		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	1.66		0.500		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: MW-28 — Lab Sample ID: 310-41248-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	66600		1000		ug/L	1000		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-28 (Continued) — Lab Sample ID: 310-41248-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	621		100		ug/L	100		8260C	Total/NA
Trichloroethene	32700		100		ug/L	100		8260C	Total/NA
Vinyl chloride	8540		100		ug/L	100		8260C	Total/NA
Sulfate	32.5		5.00		mg/L	5		9056A	Total/NA
Chloride	165		5.00		mg/L	5		9056A	Total/NA
Iron	0.918		0.400		mg/L	4		6010C	Total/NA
Manganese	0.796		0.0400		mg/L	4		6010C	Total/NA
Total Organic Carbon	36.6		4.00		mg/L	4		9060A	Total/NA

Client Sample ID: MW-29 — Lab Sample ID: 310-41248-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	647		200		ug/L	100		8260C	Total/NA
cis-1,2-Dichloroethene	989		100		ug/L	100		8260C	Total/NA
Trichloroethene	63000		1000		ug/L	1000		8260C	Total/NA
Sulfate	140		5.00		mg/L	5		9056A	Total/NA
Chloride	54.0		5.00		mg/L	5		9056A	Total/NA
Iron	0.130		0.100		mg/L	1		6010C	Total/NA
Manganese	0.227		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	3.34		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-31 — Lab Sample ID: 310-41248-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	9720		100		ug/L	100		8260C	Total/NA
Trichloroethene	4130		100		ug/L	100		8260C	Total/NA
Sulfate	136		5.00		mg/L	5		9056A	Total/NA
Chloride	34.5		5.00		mg/L	5		9056A	Total/NA
Iron	0.213		0.100		mg/L	1		6010C	Total/NA
Manganese	0.248		0.0100		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.59		1.00		mg/L	1		9060A	Total/NA

Client Sample ID: MW-53 — Lab Sample ID: 310-41248-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	8.71		1.00		ug/L	1		8260C	Total/NA
1,1-Dichloroethene	2.49		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	69.9		1.00		ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	3.06		1.00		ug/L	1		8260C	Total/NA
Tetrachloroethene	10.8		1.00		ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	10.4		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	12.7		1.00		ug/L	1		8260C	Total/NA
Sulfate	28.0		5.00		mg/L	5		9056A	Total/NA
Chloride	22.2		5.00		mg/L	5		9056A	Total/NA
Total Organic Carbon	4.91		1.00		mg/L	1		9060A	Total/NA
Nitrate as N	0.308		0.100		mg/L	1		SM 4500 NO3 E	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-41248-9

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-19

Date Collected: 10/10/14 11:35
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			10/20/14 17:09	100
Benzene	<50.0		50.0		ug/L			10/20/14 17:09	100
Bromobenzene	<100		100		ug/L			10/20/14 17:09	100
Bromochloromethane	<500		500		ug/L			10/20/14 17:09	100
Bromodichloromethane	<100		100		ug/L			10/20/14 17:09	100
Bromoform	<500		500		ug/L			10/20/14 17:09	100
Bromomethane	<400		400		ug/L			10/20/14 17:09	100
2-Butanone (MEK)	<1000		1000		ug/L			10/20/14 17:09	100
n-Butylbenzene	<100		100		ug/L			10/20/14 17:09	100
sec-Butylbenzene	<100		100		ug/L			10/20/14 17:09	100
tert-Butylbenzene	<100		100		ug/L			10/20/14 17:09	100
Carbon disulfide	<100		100		ug/L			10/20/14 17:09	100
Carbon tetrachloride	<200		200		ug/L			10/20/14 17:09	100
Chlorobenzene	<100		100		ug/L			10/20/14 17:09	100
Chlorodibromomethane	<500		500		ug/L			10/20/14 17:09	100
Chloroethane	<400		400		ug/L			10/20/14 17:09	100
Chloroform	<100		100		ug/L			10/20/14 17:09	100
Chloromethane	<300		300		ug/L			10/20/14 17:09	100
2-Chlorotoluene	<100		100		ug/L			10/20/14 17:09	100
4-Chlorotoluene	<100		100		ug/L			10/20/14 17:09	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			10/20/14 17:09	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			10/20/14 17:09	100
Dibromomethane	<100		100		ug/L			10/20/14 17:09	100
1,2-Dichlorobenzene	<100		100		ug/L			10/20/14 17:09	100
1,3-Dichlorobenzene	<100		100		ug/L			10/20/14 17:09	100
1,4-Dichlorobenzene	<100		100		ug/L			10/20/14 17:09	100
Dichlorodifluoromethane	<300		300		ug/L			10/20/14 17:09	100
1,1-Dichloroethane	<100		100		ug/L			10/20/14 17:09	100
1,2-Dichloroethane	<100		100		ug/L			10/20/14 17:09	100
1,1-Dichloroethene	**444**		200		ug/L			10/20/14 17:09	100
cis-1,2-Dichloroethene	**637**		100		ug/L			10/20/14 17:09	100
trans-1,2-Dichloroethene	<100		100		ug/L			10/20/14 17:09	100
1,2-Dichloropropane	<100		100		ug/L			10/20/14 17:09	100
1,3-Dichloropropane	<100		100		ug/L			10/20/14 17:09	100
2,2-Dichloropropane	<400		400		ug/L			10/20/14 17:09	100
1,1-Dichloropropene	<100		100		ug/L			10/20/14 17:09	100
cis-1,3-Dichloropropene	<500		500		ug/L			10/20/14 17:09	100
trans-1,3-Dichloropropene	<500		500		ug/L			10/20/14 17:09	100
Ethylbenzene	<100		100		ug/L			10/20/14 17:09	100
Hexachlorobutadiene	<500		500		ug/L			10/20/14 17:09	100
Hexane	<100		100		ug/L			10/20/14 17:09	100
Isopropylbenzene	<100		100		ug/L			10/20/14 17:09	100
p-Isopropyltoluene	<100		100		ug/L			10/20/14 17:09	100
Methylene Chloride	<500		500		ug/L			10/20/14 17:09	100
Methyl tert-butyl ether	<100		100		ug/L			10/20/14 17:09	100
Naphthalene	<500		500		ug/L			10/20/14 17:09	100
N-Propylbenzene	<100		100		ug/L			10/20/14 17:09	100
Styrene	<100		100		ug/L			10/20/14 17:09	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			10/20/14 17:09	100

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-19

Date Collected: 10/10/14 11:35
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			10/20/14 17:09	100
Tetrachloroethene	<100		100		ug/L			10/20/14 17:09	100
Toluene	<100		100		ug/L			10/20/14 17:09	100
1,2,3-Trichlorobenzene	<500		500		ug/L			10/20/14 17:09	100
1,2,4-Trichlorobenzene	<500		500		ug/L			10/20/14 17:09	100
1,1,1-Trichloroethane	**660**		100		ug/L			10/20/14 17:09	100
1,1,2-Trichloroethane	<100		100		ug/L			10/20/14 17:09	100
Trichloroethene	**26300**		100		ug/L			10/20/14 17:09	100
Trichlorofluoromethane	<400		400		ug/L			10/20/14 17:09	100
1,2,3-Trichloropropane	<100		100		ug/L			10/20/14 17:09	100
1,2,4-Trimethylbenzene	<100		100		ug/L			10/20/14 17:09	100
1,3,5-Trimethylbenzene	<100		100		ug/L			10/20/14 17:09	100
Vinyl chloride	<100		100		ug/L			10/20/14 17:09	100
Xylenes, Total	<300		300		ug/L			10/20/14 17:09	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*10/20/14 17:09*	*100*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*10/20/14 17:09*	*100*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/20/14 17:09*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**53.9**		5.00		mg/L			10/21/14 13:27	5
Chloride	**16.8**		5.00		mg/L			10/21/14 13:27	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.277**		0.100		mg/L		10/13/14 09:35	10/14/14 15:19	1
Manganese	**0.0312**		0.0100		mg/L		10/13/14 09:35	10/14/14 15:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.43**		1.00		mg/L			10/14/14 22:25	1
Nitrite as N	<0.100		0.100		mg/L			10/11/14 11:34	1
Nitrate as N	<0.100		0.100		mg/L			10/11/14 11:07	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-24

Date Collected: 10/10/14 07:40
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 16:17	1
Benzene	<0.500		0.500		ug/L			10/20/14 16:17	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 16:17	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 16:17	1
Bromoform	<5.00		5.00		ug/L			10/20/14 16:17	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 16:17	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 16:17	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 16:17	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 16:17	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 16:17	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 16:17	1
Chloroform	<1.00		1.00		ug/L			10/20/14 16:17	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 16:17	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 16:17	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 16:17	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 16:17	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 16:17	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 16:17	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 16:17	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 16:17	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 16:17	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 16:17	1
cis-1,2-Dichloroethene	**4.79**		1.00		ug/L			10/20/14 16:17	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 16:17	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 16:17	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 16:17	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 16:17	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 16:17	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 16:17	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 16:17	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 16:17	1
Hexane	<1.00		1.00		ug/L			10/20/14 16:17	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 16:17	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 16:17	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 16:17	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 16:17	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
Styrene	<1.00		1.00		ug/L			10/20/14 16:17	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 16:17	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-24

Date Collected: 10/10/14 07:40
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 16:17	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 16:17	1
Toluene	<1.00		1.00		ug/L			10/20/14 16:17	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 16:17	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 16:17	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 16:17	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 16:17	1
Trichloroethene	**64.1**		1.00		ug/L			10/20/14 16:17	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 16:17	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 16:17	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 16:17	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 16:17	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*10/20/14 16:17*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 120*		*10/20/14 16:17*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*10/20/14 16:17*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**8.67**		5.00		mg/L			10/21/14 13:27	5
Chloride	**5.30**		5.00		mg/L			10/21/14 13:27	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.279**		0.100		mg/L		10/13/14 09:35	10/14/14 15:21	1
Manganese	**0.280**		0.0100		mg/L		10/13/14 09:35	10/14/14 15:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.05**		1.00		mg/L			10/14/14 19:50	1
Nitrite as N	<0.100		0.100		mg/L			10/11/14 11:34	1
Nitrate as N	**0.875**		0.250		mg/L			10/11/14 11:11	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-25S

Date Collected: 10/10/14 09:40
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**4710**		1000		ug/L			10/20/14 17:34	100
Benzene	<50.0		50.0		ug/L			10/20/14 17:34	100
Bromobenzene	<100		100		ug/L			10/20/14 17:34	100
Bromochloromethane	<500		500		ug/L			10/20/14 17:34	100
Bromodichloromethane	<100		100		ug/L			10/20/14 17:34	100
Bromoform	<500		500		ug/L			10/20/14 17:34	100
Bromomethane	<400		400		ug/L			10/20/14 17:34	100
2-Butanone (MEK)	<1000		1000		ug/L			10/20/14 17:34	100
n-Butylbenzene	<100		100		ug/L			10/20/14 17:34	100
sec-Butylbenzene	<100		100		ug/L			10/20/14 17:34	100
tert-Butylbenzene	<100		100		ug/L			10/20/14 17:34	100
Carbon disulfide	<100		100		ug/L			10/20/14 17:34	100
Carbon tetrachloride	<200		200		ug/L			10/20/14 17:34	100
Chlorobenzene	<100		100		ug/L			10/20/14 17:34	100
Chlorodibromomethane	<500		500		ug/L			10/20/14 17:34	100
Chloroethane	<400		400		ug/L			10/20/14 17:34	100
Chloroform	<100		100		ug/L			10/20/14 17:34	100
Chloromethane	<300		300		ug/L			10/20/14 17:34	100
2-Chlorotoluene	<100		100		ug/L			10/20/14 17:34	100
4-Chlorotoluene	<100		100		ug/L			10/20/14 17:34	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			10/20/14 17:34	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			10/20/14 17:34	100
Dibromomethane	<100		100		ug/L			10/20/14 17:34	100
1,2-Dichlorobenzene	<100		100		ug/L			10/20/14 17:34	100
1,3-Dichlorobenzene	<100		100		ug/L			10/20/14 17:34	100
1,4-Dichlorobenzene	<100		100		ug/L			10/20/14 17:34	100
Dichlorodifluoromethane	<300		300		ug/L			10/20/14 17:34	100
1,1-Dichloroethane	<100		100		ug/L			10/20/14 17:34	100
1,2-Dichloroethane	<100		100		ug/L			10/20/14 17:34	100
1,1-Dichloroethene	<200		200		ug/L			10/20/14 17:34	100
cis-1,2-Dichloroethene	**30400**		100		ug/L			10/20/14 17:34	100
trans-1,2-Dichloroethene	**110**		100		ug/L			10/20/14 17:34	100
1,2-Dichloropropane	<100		100		ug/L			10/20/14 17:34	100
1,3-Dichloropropane	<100		100		ug/L			10/20/14 17:34	100
2,2-Dichloropropane	<400		400		ug/L			10/20/14 17:34	100
1,1-Dichloropropene	<100		100		ug/L			10/20/14 17:34	100
cis-1,3-Dichloropropene	<500		500		ug/L			10/20/14 17:34	100
trans-1,3-Dichloropropene	<500		500		ug/L			10/20/14 17:34	100
Ethylbenzene	<100		100		ug/L			10/20/14 17:34	100
Hexachlorobutadiene	<500		500		ug/L			10/20/14 17:34	100
Hexane	<100		100		ug/L			10/20/14 17:34	100
Isopropylbenzene	<100		100		ug/L			10/20/14 17:34	100
p-Isopropyltoluene	<100		100		ug/L			10/20/14 17:34	100
Methylene Chloride	<500		500		ug/L			10/20/14 17:34	100
Methyl tert-butyl ether	<100		100		ug/L			10/20/14 17:34	100
Naphthalene	<500		500		ug/L			10/20/14 17:34	100
N-Propylbenzene	<100		100		ug/L			10/20/14 17:34	100
Styrene	<100		100		ug/L			10/20/14 17:34	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			10/20/14 17:34	100

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-25S

Date Collected: 10/10/14 09:40
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			10/20/14 17:34	100
Tetrachloroethene	<100		100		ug/L			10/20/14 17:34	100
Toluene	<100		100		ug/L			10/20/14 17:34	100
1,2,3-Trichlorobenzene	<500		500		ug/L			10/20/14 17:34	100
1,2,4-Trichlorobenzene	<500		500		ug/L			10/20/14 17:34	100
1,1,1-Trichloroethane	<100		100		ug/L			10/20/14 17:34	100
1,1,2-Trichloroethane	<100		100		ug/L			10/20/14 17:34	100
Trichloroethene	<100		100		ug/L			10/20/14 17:34	100
Trichlorofluoromethane	<400		400		ug/L			10/20/14 17:34	100
1,2,3-Trichloropropane	<100		100		ug/L			10/20/14 17:34	100
1,2,4-Trimethylbenzene	<100		100		ug/L			10/20/14 17:34	100
1,3,5-Trimethylbenzene	<100		100		ug/L			10/20/14 17:34	100
Vinyl chloride	**2890**		100		ug/L			10/20/14 17:34	100
Xylenes, Total	<300		300		ug/L			10/20/14 17:34	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*		*10/20/14 17:34*	*100*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*10/20/14 17:34*	*100*
Toluene-d8 (Surr)	*95*		*80 - 120*		*10/20/14 17:34*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.00		5.00		mg/L			10/21/14 13:27	5
Chloride	**69.5**		5.00		mg/L			10/21/14 13:27	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**2.71**		0.300		mg/L		10/13/14 09:35	10/14/14 15:23	3
Manganese	**0.206**		0.0300		mg/L		10/13/14 09:35	10/14/14 15:23	3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**50.7**		10.0		mg/L			10/17/14 10:07	10
Nitrite as N	<0.100		0.100		mg/L			10/11/14 11:34	1
Nitrate as N	**0.123**		0.100		mg/L			10/11/14 11:12	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-26S

Date Collected: 10/10/14 09:00
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			10/20/14 18:00	100
Benzene	<50.0		50.0		ug/L			10/20/14 18:00	100
Bromobenzene	<100		100		ug/L			10/20/14 18:00	100
Bromochloromethane	<500		500		ug/L			10/20/14 18:00	100
Bromodichloromethane	<100		100		ug/L			10/20/14 18:00	100
Bromoform	<500		500		ug/L			10/20/14 18:00	100
Bromomethane	<400		400		ug/L			10/20/14 18:00	100
2-Butanone (MEK)	<1000		1000		ug/L			10/20/14 18:00	100
n-Butylbenzene	<100		100		ug/L			10/20/14 18:00	100
sec-Butylbenzene	<100		100		ug/L			10/20/14 18:00	100
tert-Butylbenzene	<100		100		ug/L			10/20/14 18:00	100
Carbon disulfide	<100		100		ug/L			10/20/14 18:00	100
Carbon tetrachloride	<200		200		ug/L			10/20/14 18:00	100
Chlorobenzene	<100		100		ug/L			10/20/14 18:00	100
Chlorodibromomethane	<500		500		ug/L			10/20/14 18:00	100
Chloroethane	<400		400		ug/L			10/20/14 18:00	100
Chloroform	<100		100		ug/L			10/20/14 18:00	100
Chloromethane	<300		300		ug/L			10/20/14 18:00	100
2-Chlorotoluene	<100		100		ug/L			10/20/14 18:00	100
4-Chlorotoluene	<100		100		ug/L			10/20/14 18:00	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			10/20/14 18:00	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			10/20/14 18:00	100
Dibromomethane	<100		100		ug/L			10/20/14 18:00	100
1,2-Dichlorobenzene	<100		100		ug/L			10/20/14 18:00	100
1,3-Dichlorobenzene	<100		100		ug/L			10/20/14 18:00	100
1,4-Dichlorobenzene	<100		100		ug/L			10/20/14 18:00	100
Dichlorodifluoromethane	<300		300		ug/L			10/20/14 18:00	100
1,1-Dichloroethane	<100		100		ug/L			10/20/14 18:00	100
1,2-Dichloroethane	<100		100		ug/L			10/20/14 18:00	100
1,1-Dichloroethene	<200		200		ug/L			10/20/14 18:00	100
cis-1,2-Dichloroethene	**959**		100		ug/L			10/20/14 18:00	100
trans-1,2-Dichloroethene	<100		100		ug/L			10/20/14 18:00	100
1,2-Dichloropropane	<100		100		ug/L			10/20/14 18:00	100
1,3-Dichloropropane	<100		100		ug/L			10/20/14 18:00	100
2,2-Dichloropropane	<400		400		ug/L			10/20/14 18:00	100
1,1-Dichloropropene	<100		100		ug/L			10/20/14 18:00	100
cis-1,3-Dichloropropene	<500		500		ug/L			10/20/14 18:00	100
trans-1,3-Dichloropropene	<500		500		ug/L			10/20/14 18:00	100
Ethylbenzene	<100		100		ug/L			10/20/14 18:00	100
Hexachlorobutadiene	<500		500		ug/L			10/20/14 18:00	100
Hexane	<100		100		ug/L			10/20/14 18:00	100
Isopropylbenzene	<100		100		ug/L			10/20/14 18:00	100
p-Isopropyltoluene	<100		100		ug/L			10/20/14 18:00	100
Methylene Chloride	<500		500		ug/L			10/20/14 18:00	100
Methyl tert-butyl ether	<100		100		ug/L			10/20/14 18:00	100
Naphthalene	<500		500		ug/L			10/20/14 18:00	100
N-Propylbenzene	<100		100		ug/L			10/20/14 18:00	100
Styrene	<100		100		ug/L			10/20/14 18:00	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			10/20/14 18:00	100

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-26S

Date Collected: 10/10/14 09:00
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			10/20/14 18:00	100
Tetrachloroethene	<100		100		ug/L			10/20/14 18:00	100
Toluene	<100		100		ug/L			10/20/14 18:00	100
1,2,3-Trichlorobenzene	<500		500		ug/L			10/20/14 18:00	100
1,2,4-Trichlorobenzene	<500		500		ug/L			10/20/14 18:00	100
1,1,1-Trichloroethane	<100		100		ug/L			10/20/14 18:00	100
1,1,2-Trichloroethane	<100		100		ug/L			10/20/14 18:00	100
Trichloroethene	**56000**		100		ug/L			10/20/14 18:00	100
Trichlorofluoromethane	<400		400		ug/L			10/20/14 18:00	100
1,2,3-Trichloropropane	<100		100		ug/L			10/20/14 18:00	100
1,2,4-Trimethylbenzene	<100		100		ug/L			10/20/14 18:00	100
1,3,5-Trimethylbenzene	<100		100		ug/L			10/20/14 18:00	100
Vinyl chloride	<100		100		ug/L			10/20/14 18:00	100
Xylenes, Total	<300		300		ug/L			10/20/14 18:00	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/20/14 18:00*	*100*
Dibromofluoromethane (Surr)	*98*		*75 - 120*		*10/20/14 18:00*	*100*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/20/14 18:00*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**46.5**		5.00		mg/L			10/21/14 13:27	5
Chloride	**61.1**		5.00		mg/L			10/21/14 13:27	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/13/14 09:35	10/14/14 15:25	1
Manganese	**0.0285**		0.0100		mg/L		10/13/14 09:35	10/14/14 15:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.34**		1.00		mg/L			10/14/14 23:16	1
Nitrite as N	<0.100		0.100		mg/L			10/11/14 11:34	1
Nitrate as N	**1.66**		0.500		mg/L			10/11/14 11:14	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-28
Date Collected: 10/10/14 10:40
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-5
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			10/20/14 18:25	100
Benzene	<50.0		50.0		ug/L			10/20/14 18:25	100
Bromobenzene	<100		100		ug/L			10/20/14 18:25	100
Bromochloromethane	<500		500		ug/L			10/20/14 18:25	100
Bromodichloromethane	<100		100		ug/L			10/20/14 18:25	100
Bromoform	<500		500		ug/L			10/20/14 18:25	100
Bromomethane	<400		400		ug/L			10/20/14 18:25	100
2-Butanone (MEK)	<1000		1000		ug/L			10/20/14 18:25	100
n-Butylbenzene	<100		100		ug/L			10/20/14 18:25	100
sec-Butylbenzene	<100		100		ug/L			10/20/14 18:25	100
tert-Butylbenzene	<100		100		ug/L			10/20/14 18:25	100
Carbon disulfide	<100		100		ug/L			10/20/14 18:25	100
Carbon tetrachloride	<200		200		ug/L			10/20/14 18:25	100
Chlorobenzene	<100		100		ug/L			10/20/14 18:25	100
Chlorodibromomethane	<500		500		ug/L			10/20/14 18:25	100
Chloroethane	<400		400		ug/L			10/20/14 18:25	100
Chloroform	<100		100		ug/L			10/20/14 18:25	100
Chloromethane	<300		300		ug/L			10/20/14 18:25	100
2-Chlorotoluene	<100		100		ug/L			10/20/14 18:25	100
4-Chlorotoluene	<100		100		ug/L			10/20/14 18:25	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			10/20/14 18:25	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			10/20/14 18:25	100
Dibromomethane	<100		100		ug/L			10/20/14 18:25	100
1,2-Dichlorobenzene	<100		100		ug/L			10/20/14 18:25	100
1,3-Dichlorobenzene	<100		100		ug/L			10/20/14 18:25	100
1,4-Dichlorobenzene	<100		100		ug/L			10/20/14 18:25	100
Dichlorodifluoromethane	<300		300		ug/L			10/20/14 18:25	100
1,1-Dichloroethane	<100		100		ug/L			10/20/14 18:25	100
1,2-Dichloroethane	<100		100		ug/L			10/20/14 18:25	100
1,1-Dichloroethene	<200		200		ug/L			10/20/14 18:25	100
cis-1,2-Dichloroethene	**66600**		1000		ug/L			10/21/14 10:24	1000
trans-1,2-Dichloroethene	**621**		100		ug/L			10/20/14 18:25	100
1,2-Dichloropropane	<100		100		ug/L			10/20/14 18:25	100
1,3-Dichloropropane	<100		100		ug/L			10/20/14 18:25	100
2,2-Dichloropropane	<400		400		ug/L			10/20/14 18:25	100
1,1-Dichloropropene	<100		100		ug/L			10/20/14 18:25	100
cis-1,3-Dichloropropene	<500		500		ug/L			10/20/14 18:25	100
trans-1,3-Dichloropropene	<500		500		ug/L			10/20/14 18:25	100
Ethylbenzene	<100		100		ug/L			10/20/14 18:25	100
Hexachlorobutadiene	<500		500		ug/L			10/20/14 18:25	100
Hexane	<100		100		ug/L			10/20/14 18:25	100
Isopropylbenzene	<100		100		ug/L			10/20/14 18:25	100
p-Isopropyltoluene	<100		100		ug/L			10/20/14 18:25	100
Methylene Chloride	<500		500		ug/L			10/20/14 18:25	100
Methyl tert-butyl ether	<100		100		ug/L			10/20/14 18:25	100
Naphthalene	<500		500		ug/L			10/20/14 18:25	100
N-Propylbenzene	<100		100		ug/L			10/20/14 18:25	100
Styrene	<100		100		ug/L			10/20/14 18:25	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			10/20/14 18:25	100

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-28

Date Collected: 10/10/14 10:40
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-5

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			10/20/14 18:25	100
Tetrachloroethene	<100		100		ug/L			10/20/14 18:25	100
Toluene	<100		100		ug/L			10/20/14 18:25	100
1,2,3-Trichlorobenzene	<500		500		ug/L			10/20/14 18:25	100
1,2,4-Trichlorobenzene	<500		500		ug/L			10/20/14 18:25	100
1,1,1-Trichloroethane	<100		100		ug/L			10/20/14 18:25	100
1,1,2-Trichloroethane	<100		100		ug/L			10/20/14 18:25	100
Trichloroethene	**32700**		100		ug/L			10/20/14 18:25	100
Trichlorofluoromethane	<400		400		ug/L			10/20/14 18:25	100
1,2,3-Trichloropropane	<100		100		ug/L			10/20/14 18:25	100
1,2,4-Trimethylbenzene	<100		100		ug/L			10/20/14 18:25	100
1,3,5-Trimethylbenzene	<100		100		ug/L			10/20/14 18:25	100
Vinyl chloride	**8540**		100		ug/L			10/20/14 18:25	100
Xylenes, Total	<300		300		ug/L			10/20/14 18:25	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*		*10/20/14 18:25*	*100*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*		*10/21/14 10:24*	*1000*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*10/20/14 18:25*	*100*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*10/21/14 10:24*	*1000*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/20/14 18:25*	*100*
Toluene-d8 (Surr)	*99*		*80 - 120*		*10/21/14 10:24*	*1000*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**32.5**		5.00		mg/L			10/21/14 13:27	5
Chloride	**165**		5.00		mg/L			10/21/14 13:27	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.918**		0.400		mg/L		10/13/14 09:35	10/14/14 15:27	4
Manganese	**0.796**		0.0400		mg/L		10/13/14 09:35	10/14/14 15:27	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**36.6**		4.00		mg/L			10/17/14 10:23	4
Nitrite as N	<0.100		0.100		mg/L			10/11/14 11:34	1
Nitrate as N	<0.100		0.100		mg/L			10/11/14 11:15	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-29
Date Collected: 10/10/14 11:05
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-6
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			10/20/14 18:51	100
Benzene	<50.0		50.0		ug/L			10/20/14 18:51	100
Bromobenzene	<100		100		ug/L			10/20/14 18:51	100
Bromochloromethane	<500		500		ug/L			10/20/14 18:51	100
Bromodichloromethane	<100		100		ug/L			10/20/14 18:51	100
Bromoform	<500		500		ug/L			10/20/14 18:51	100
Bromomethane	<400		400		ug/L			10/20/14 18:51	100
2-Butanone (MEK)	<1000		1000		ug/L			10/20/14 18:51	100
n-Butylbenzene	<100		100		ug/L			10/20/14 18:51	100
sec-Butylbenzene	<100		100		ug/L			10/20/14 18:51	100
tert-Butylbenzene	<100		100		ug/L			10/20/14 18:51	100
Carbon disulfide	<100		100		ug/L			10/20/14 18:51	100
Carbon tetrachloride	<200		200		ug/L			10/20/14 18:51	100
Chlorobenzene	<100		100		ug/L			10/20/14 18:51	100
Chlorodibromomethane	<500		500		ug/L			10/20/14 18:51	100
Chloroethane	<400		400		ug/L			10/20/14 18:51	100
Chloroform	<100		100		ug/L			10/20/14 18:51	100
Chloromethane	<300		300		ug/L			10/20/14 18:51	100
2-Chlorotoluene	<100		100		ug/L			10/20/14 18:51	100
4-Chlorotoluene	<100		100		ug/L			10/20/14 18:51	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			10/20/14 18:51	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			10/20/14 18:51	100
Dibromomethane	<100		100		ug/L			10/20/14 18:51	100
1,2-Dichlorobenzene	<100		100		ug/L			10/20/14 18:51	100
1,3-Dichlorobenzene	<100		100		ug/L			10/20/14 18:51	100
1,4-Dichlorobenzene	<100		100		ug/L			10/20/14 18:51	100
Dichlorodifluoromethane	<300		300		ug/L			10/20/14 18:51	100
1,1-Dichloroethane	<100		100		ug/L			10/20/14 18:51	100
1,2-Dichloroethane	<100		100		ug/L			10/20/14 18:51	100
1,1-Dichloroethene	**647**		200		ug/L			10/20/14 18:51	100
cis-1,2-Dichloroethene	**989**		100		ug/L			10/20/14 18:51	100
trans-1,2-Dichloroethene	<100		100		ug/L			10/20/14 18:51	100
1,2-Dichloropropane	<100		100		ug/L			10/20/14 18:51	100
1,3-Dichloropropane	<100		100		ug/L			10/20/14 18:51	100
2,2-Dichloropropane	<400		400		ug/L			10/20/14 18:51	100
1,1-Dichloropropene	<100		100		ug/L			10/20/14 18:51	100
cis-1,3-Dichloropropene	<500		500		ug/L			10/20/14 18:51	100
trans-1,3-Dichloropropene	<500		500		ug/L			10/20/14 18:51	100
Ethylbenzene	<100		100		ug/L			10/20/14 18:51	100
Hexachlorobutadiene	<500		500		ug/L			10/20/14 18:51	100
Hexane	<100		100		ug/L			10/20/14 18:51	100
Isopropylbenzene	<100		100		ug/L			10/20/14 18:51	100
p-Isopropyltoluene	<100		100		ug/L			10/20/14 18:51	100
Methylene Chloride	<500		500		ug/L			10/20/14 18:51	100
Methyl tert-butyl ether	<100		100		ug/L			10/20/14 18:51	100
Naphthalene	<500		500		ug/L			10/20/14 18:51	100
N-Propylbenzene	<100		100		ug/L			10/20/14 18:51	100
Styrene	<100		100		ug/L			10/20/14 18:51	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			10/20/14 18:51	100

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-29

Date Collected: 10/10/14 11:05
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-6

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			10/20/14 18:51	100
Tetrachloroethene	<100		100		ug/L			10/20/14 18:51	100
Toluene	<100		100		ug/L			10/20/14 18:51	100
1,2,3-Trichlorobenzene	<500		500		ug/L			10/20/14 18:51	100
1,2,4-Trichlorobenzene	<500		500		ug/L			10/20/14 18:51	100
1,1,1-Trichloroethane	<100		100		ug/L			10/20/14 18:51	100
1,1,2-Trichloroethane	<100		100		ug/L			10/20/14 18:51	100
Trichloroethene	**63000**		1000		ug/L			10/21/14 10:47	1000
Trichlorofluoromethane	<400		400		ug/L			10/20/14 18:51	100
1,2,3-Trichloropropane	<100		100		ug/L			10/20/14 18:51	100
1,2,4-Trimethylbenzene	<100		100		ug/L			10/20/14 18:51	100
1,3,5-Trimethylbenzene	<100		100		ug/L			10/20/14 18:51	100
Vinyl chloride	<100		100		ug/L			10/20/14 18:51	100
Xylenes, Total	<300		300		ug/L			10/20/14 18:51	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*		*10/20/14 18:51*	*100*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*		*10/21/14 10:47*	*1000*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*10/20/14 18:51*	*100*
Dibromofluoromethane (Surr)	*98*		*75 - 120*		*10/21/14 10:47*	*1000*
Toluene-d8 (Surr)	*98*		*80 - 120*		*10/20/14 18:51*	*100*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/21/14 10:47*	*1000*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**140**		5.00		mg/L			10/21/14 13:27	5
Chloride	**54.0**		5.00		mg/L			10/21/14 13:27	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.130**		0.100		mg/L		10/13/14 09:35	10/14/14 15:29	1
Manganese	**0.227**		0.0100		mg/L		10/13/14 09:35	10/14/14 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.34**		1.00		mg/L			10/14/14 23:53	1
Nitrite as N	<0.100		0.100		mg/L			10/11/14 11:34	1
Nitrate as N	<0.100		0.100		mg/L			10/11/14 11:19	1

Client Sample ID: MW-31

Date Collected: 10/10/14 08:30
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-7

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			10/20/14 19:16	100
Benzene	<50.0		50.0		ug/L			10/20/14 19:16	100
Bromobenzene	<100		100		ug/L			10/20/14 19:16	100
Bromochloromethane	<500		500		ug/L			10/20/14 19:16	100
Bromodichloromethane	<100		100		ug/L			10/20/14 19:16	100
Bromoform	<500		500		ug/L			10/20/14 19:16	100
Bromomethane	<400		400		ug/L			10/20/14 19:16	100
2-Butanone (MEK)	<1000		1000		ug/L			10/20/14 19:16	100
n-Butylbenzene	<100		100		ug/L			10/20/14 19:16	100
sec-Butylbenzene	<100		100		ug/L			10/20/14 19:16	100
tert-Butylbenzene	<100		100		ug/L			10/20/14 19:16	100
Carbon disulfide	<100		100		ug/L			10/20/14 19:16	100
Carbon tetrachloride	<200		200		ug/L			10/20/14 19:16	100
Chlorobenzene	<100		100		ug/L			10/20/14 19:16	100
Chlorodibromomethane	<500		500		ug/L			10/20/14 19:16	100
Chloroethane	<400		400		ug/L			10/20/14 19:16	100
Chloroform	<100		100		ug/L			10/20/14 19:16	100
Chloromethane	<300		300		ug/L			10/20/14 19:16	100
2-Chlorotoluene	<100		100		ug/L			10/20/14 19:16	100
4-Chlorotoluene	<100		100		ug/L			10/20/14 19:16	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			10/20/14 19:16	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			10/20/14 19:16	100
Dibromomethane	<100		100		ug/L			10/20/14 19:16	100
1,2-Dichlorobenzene	<100		100		ug/L			10/20/14 19:16	100
1,3-Dichlorobenzene	<100		100		ug/L			10/20/14 19:16	100
1,4-Dichlorobenzene	<100		100		ug/L			10/20/14 19:16	100
Dichlorodifluoromethane	<300		300		ug/L			10/20/14 19:16	100
1,1-Dichloroethane	<100		100		ug/L			10/20/14 19:16	100
1,2-Dichloroethane	<100		100		ug/L			10/20/14 19:16	100
1,1-Dichloroethene	<200		200		ug/L			10/20/14 19:16	100
cis-1,2-Dichloroethene	**9720**		100		ug/L			10/20/14 19:16	100
trans-1,2-Dichloroethene	<100		100		ug/L			10/20/14 19:16	100
1,2-Dichloropropane	<100		100		ug/L			10/20/14 19:16	100
1,3-Dichloropropane	<100		100		ug/L			10/20/14 19:16	100
2,2-Dichloropropane	<400		400		ug/L			10/20/14 19:16	100
1,1-Dichloropropene	<100		100		ug/L			10/20/14 19:16	100
cis-1,3-Dichloropropene	<500		500		ug/L			10/20/14 19:16	100
trans-1,3-Dichloropropene	<500		500		ug/L			10/20/14 19:16	100
Ethylbenzene	<100		100		ug/L			10/20/14 19:16	100
Hexachlorobutadiene	<500		500		ug/L			10/20/14 19:16	100
Hexane	<100		100		ug/L			10/20/14 19:16	100
Isopropylbenzene	<100		100		ug/L			10/20/14 19:16	100
p-Isopropyltoluene	<100		100		ug/L			10/20/14 19:16	100
Methylene Chloride	<500		500		ug/L			10/20/14 19:16	100
Methyl tert-butyl ether	<100		100		ug/L			10/20/14 19:16	100
Naphthalene	<500		500		ug/L			10/20/14 19:16	100
N-Propylbenzene	<100		100		ug/L			10/20/14 19:16	100
Styrene	<100		100		ug/L			10/20/14 19:16	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			10/20/14 19:16	100

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-31

Date Collected: 10/10/14 08:30
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-7

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			10/20/14 19:16	100
Tetrachloroethene	<100		100		ug/L			10/20/14 19:16	100
Toluene	<100		100		ug/L			10/20/14 19:16	100
1,2,3-Trichlorobenzene	<500		500		ug/L			10/20/14 19:16	100
1,2,4-Trichlorobenzene	<500		500		ug/L			10/20/14 19:16	100
1,1,1-Trichloroethane	<100		100		ug/L			10/20/14 19:16	100
1,1,2-Trichloroethane	<100		100		ug/L			10/20/14 19:16	100
Trichloroethene	**4130**		100		ug/L			10/20/14 19:16	100
Trichlorofluoromethane	<400		400		ug/L			10/20/14 19:16	100
1,2,3-Trichloropropane	<100		100		ug/L			10/20/14 19:16	100
1,2,4-Trimethylbenzene	<100		100		ug/L			10/20/14 19:16	100
1,3,5-Trimethylbenzene	<100		100		ug/L			10/20/14 19:16	100
Vinyl chloride	<100		100		ug/L			10/20/14 19:16	100
Xylenes, Total	<300		300		ug/L			10/20/14 19:16	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*		*10/20/14 19:16*	*100*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*10/20/14 19:16*	*100*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/20/14 19:16*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**136**		5.00		mg/L			10/21/14 13:27	5
Chloride	**34.5**		5.00		mg/L			10/21/14 13:27	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.213**		0.100		mg/L		10/13/14 09:35	10/14/14 15:37	1
Manganese	**0.248**		0.0100		mg/L		10/13/14 09:35	10/14/14 15:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.59**		1.00		mg/L			10/16/14 19:09	1
Nitrite as N	<0.100		0.100		mg/L			10/11/14 11:34	1
Nitrate as N	<0.100		0.100		mg/L			10/11/14 11:21	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-53
Date Collected: 10/10/14 08:10
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-8
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/21/14 06:43	1
Benzene	<0.500		0.500		ug/L			10/21/14 06:43	1
Bromobenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
Bromochloromethane	<5.00		5.00		ug/L			10/21/14 06:43	1
Bromodichloromethane	<1.00		1.00		ug/L			10/21/14 06:43	1
Bromoform	<5.00		5.00		ug/L			10/21/14 06:43	1
Bromomethane	<4.00		4.00		ug/L			10/21/14 06:43	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/21/14 06:43	1
n-Butylbenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
Carbon disulfide	<1.00		1.00		ug/L			10/21/14 06:43	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/21/14 06:43	1
Chlorobenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/21/14 06:43	1
Chloroethane	<4.00		4.00		ug/L			10/21/14 06:43	1
Chloroform	<1.00		1.00		ug/L			10/21/14 06:43	1
Chloromethane	<3.00		3.00		ug/L			10/21/14 06:43	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/21/14 06:43	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/21/14 06:43	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/21/14 06:43	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/21/14 06:43	1
Dibromomethane	<1.00		1.00		ug/L			10/21/14 06:43	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/21/14 06:43	1
1,1-Dichloroethane	**8.71**		1.00		ug/L			10/21/14 06:43	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/21/14 06:43	1
1,1-Dichloroethene	**2.49**		2.00		ug/L			10/21/14 06:43	1
cis-1,2-Dichloroethene	**69.9**		1.00		ug/L			10/21/14 06:43	1
trans-1,2-Dichloroethene	**3.06**		1.00		ug/L			10/21/14 06:43	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/21/14 06:43	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/21/14 06:43	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/21/14 06:43	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/21/14 06:43	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/21/14 06:43	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/21/14 06:43	1
Ethylbenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/21/14 06:43	1
Hexane	<1.00		1.00		ug/L			10/21/14 06:43	1
Isopropylbenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/21/14 06:43	1
Methylene Chloride	<5.00		5.00		ug/L			10/21/14 06:43	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/21/14 06:43	1
Naphthalene	<5.00		5.00		ug/L			10/21/14 06:43	1
N-Propylbenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
Styrene	<1.00		1.00		ug/L			10/21/14 06:43	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/21/14 06:43	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-53

Date Collected: 10/10/14 08:10
Date Received: 10/11/14 09:50

Lab Sample ID: 310-41248-8

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/21/14 06:43	1
Tetrachloroethene	**10.8**		1.00		ug/L			10/21/14 06:43	1
Toluene	<1.00		1.00		ug/L			10/21/14 06:43	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/21/14 06:43	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/21/14 06:43	1
1,1,1-Trichloroethane	**10.4**		1.00		ug/L			10/21/14 06:43	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/21/14 06:43	1
Trichloroethene	**12.7**		1.00		ug/L			10/21/14 06:43	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/21/14 06:43	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/21/14 06:43	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/21/14 06:43	1
Vinyl chloride	<1.00		1.00		ug/L			10/21/14 06:43	1
Xylenes, Total	<3.00		3.00		ug/L			10/21/14 06:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*		*10/21/14 06:43*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*10/21/14 06:43*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/21/14 06:43*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**28.0**		5.00		mg/L			10/21/14 13:27	5
Chloride	**22.2**		5.00		mg/L			10/21/14 13:27	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/13/14 09:35	10/14/14 15:41	1
Manganese	<0.0100		0.0100		mg/L		10/13/14 09:35	10/14/14 15:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.91**		1.00		mg/L			10/16/14 19:27	1
Nitrite as N	<0.100		0.100		mg/L			10/11/14 11:34	1
Nitrate as N	**0.308**		0.100		mg/L			10/11/14 11:22	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-41248-9

Date Collected: 10/10/14 00:00
Matrix: Water
Date Received: 10/11/14 09:50

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 23:06	1
Benzene	<0.500		0.500		ug/L			10/20/14 23:06	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 23:06	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 23:06	1
Bromoform	<5.00		5.00		ug/L			10/20/14 23:06	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 23:06	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 23:06	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 23:06	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 23:06	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 23:06	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 23:06	1
Chloroform	<1.00		1.00		ug/L			10/20/14 23:06	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 23:06	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 23:06	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 23:06	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 23:06	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 23:06	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 23:06	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 23:06	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 23:06	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 23:06	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 23:06	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 23:06	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 23:06	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 23:06	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 23:06	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 23:06	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 23:06	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 23:06	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 23:06	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 23:06	1
Hexane	<1.00		1.00		ug/L			10/20/14 23:06	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 23:06	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 23:06	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 23:06	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 23:06	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
Styrene	<1.00		1.00		ug/L			10/20/14 23:06	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 23:06	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-41248-9

Date Collected: 10/10/14 00:00
Matrix: Water
Date Received: 10/11/14 09:50

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 23:06	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 23:06	1
Toluene	<1.00		1.00		ug/L			10/20/14 23:06	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 23:06	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 23:06	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 23:06	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 23:06	1
Trichloroethene	<1.00		1.00		ug/L			10/20/14 23:06	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 23:06	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 23:06	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 23:06	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 23:06	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 23:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*10/20/14 23:06*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*10/20/14 23:06*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*10/20/14 23:06*	*1*

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-41248-1	MW-19	100	102	97
310-41248-2	MW-24	99	97	98
310-41248-3	MW-25S	101	101	95
310-41248-4	MW-26S	98	98	96
310-41248-5	MW-28	101	102	97
310-41248-5	MW-28	101	102	99
310-41248-6	MW-29	102	99	98
310-41248-6	MW-29	102	98	96
310-41248-7	MW-31	97	102	97
310-41248-8	MW-53	97	103	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-41248-9	Trip Blank	99	101	97
LCS 310-65166/4	Lab Control Sample	102	95	95
LCS 310-65169/4	Lab Control Sample	97	101	94
LCS 310-65328/4	Lab Control Sample	106	105	99
MB 310-65166/7	Method Blank	100	100	96
MB 310-65169/7	Method Blank	98	98	99
MB 310-65328/7	Method Blank	100	101	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-65166/7
Matrix: Water
Analysis Batch: 65166

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 10:46	1
Benzene	<0.500		0.500		ug/L			10/20/14 10:46	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 10:46	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 10:46	1
Bromoform	<5.00		5.00		ug/L			10/20/14 10:46	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 10:46	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 10:46	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 10:46	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 10:46	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 10:46	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 10:46	1
Chloroform	<1.00		1.00		ug/L			10/20/14 10:46	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 10:46	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 10:46	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 10:46	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 10:46	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 10:46	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 10:46	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 10:46	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 10:46	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 10:46	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 10:46	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 10:46	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 10:46	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 10:46	1
Hexane	<1.00		1.00		ug/L			10/20/14 10:46	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 10:46	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 10:46	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 10:46	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 10:46	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Styrene	<1.00		1.00		ug/L			10/20/14 10:46	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65166/7
Matrix: Water
Analysis Batch: 65166

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 10:46	1
Toluene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 10:46	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 10:46	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 10:46	1
Trichloroethene	<1.00		1.00		ug/L			10/20/14 10:46	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 10:46	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 10:46	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 10:46	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 10:46	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*10/20/14 10:46*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*10/20/14 10:46*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*10/20/14 10:46*	*1*

Lab Sample ID: LCS 310-65166/4
Matrix: Water
Analysis Batch: 65166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	36.20		ug/L		91	60 - 150
Benzene	20.0	19.03		ug/L		95	70 - 130
Bromobenzene	20.0	20.09		ug/L		100	75 - 130
Bromochloromethane	20.0	21.21		ug/L		106	65 - 145
Bromodichloromethane	20.0	21.46		ug/L		107	60 - 130
Bromoform	20.0	15.06		ug/L		75	30 - 125
Bromomethane	20.0	19.99		ug/L		100	35 - 130
2-Butanone (MEK)	40.0	35.74		ug/L		89	55 - 140
n-Butylbenzene	20.0	22.11		ug/L		111	55 - 135
sec-Butylbenzene	20.0	21.21		ug/L		106	65 - 135
tert-Butylbenzene	20.0	20.93		ug/L		105	60 - 135
Carbon disulfide	20.0	19.44		ug/L		97	40 - 130
Carbon tetrachloride	20.0	21.24		ug/L		106	55 - 130
Chlorobenzene	20.0	19.81		ug/L		99	75 - 125
Chlorodibromomethane	20.0	21.14		ug/L		106	45 - 125
Chloroethane	20.0	23.74		ug/L		119	55 - 135
Chloroform	20.0	18.83		ug/L		94	70 - 125
Chloromethane	20.0	21.78		ug/L		109	30 - 125
2-Chlorotoluene	20.0	19.75		ug/L		99	75 - 135
4-Chlorotoluene	20.0	20.20		ug/L		101	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	14.99		ug/L		75	35 - 130
1,2-Dibromoethane (EDB)	20.0	22.37		ug/L		112	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-65166/4
Matrix: Water
Analysis Batch: 65166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	21.01		ug/L		105	75 - 130
1,2-Dichlorobenzene	20.0	19.26		ug/L		96	65 - 135
1,3-Dichlorobenzene	20.0	19.44		ug/L		97	70 - 130
1,4-Dichlorobenzene	20.0	18.98		ug/L		95	60 - 140
Dichlorodifluoromethane	20.0	24.58		ug/L		123	35 - 130
1,1-Dichloroethane	20.0	19.90		ug/L		100	60 - 130
1,2-Dichloroethane	20.0	21.02		ug/L		105	65 - 140
1,1-Dichloroethene	20.0	21.07		ug/L		105	60 - 135
cis-1,2-Dichloroethene	20.0	20.21		ug/L		101	70 - 135
trans-1,2-Dichloroethene	20.0	20.58		ug/L		103	60 - 145
1,2-Dichloropropane	20.0	21.69		ug/L		108	65 - 130
1,3-Dichloropropane	20.0	22.28		ug/L		111	75 - 125
2,2-Dichloropropane	20.0	21.41		ug/L		107	25 - 120
1,1-Dichloropropene	20.0	21.17		ug/L		106	60 - 140
cis-1,3-Dichloropropene	20.0	21.53		ug/L		108	30 - 120
trans-1,3-Dichloropropene	20.0	20.12		ug/L		101	35 - 120
Ethylbenzene	20.0	20.73		ug/L		104	70 - 130
Hexachlorobutadiene	20.0	21.64		ug/L		108	60 - 135
Hexane	20.0	21.34		ug/L		107	40 - 135
Isopropylbenzene	20.0	21.45		ug/L		107	70 - 125
p-Isopropyltoluene	20.0	21.53		ug/L		108	60 - 140
Methylene Chloride	20.0	19.35		ug/L		97	55 - 145
Methyl tert-butyl ether	20.0	20.96		ug/L		105	50 - 135
Naphthalene	20.0	19.98		ug/L		100	40 - 135
N-Propylbenzene	20.0	20.68		ug/L		103	70 - 135
Styrene	20.0	20.26		ug/L		101	70 - 130
1,1,1,2-Tetrachloroethane	20.0	19.61		ug/L		98	65 - 120
1,1,2,2-Tetrachloroethane	20.0	15.96		ug/L		80	65 - 130
Tetrachloroethene	20.0	23.89		ug/L		119	70 - 135
Toluene	20.0	22.72		ug/L		114	70 - 135
1,2,3-Trichlorobenzene	20.0	20.42		ug/L		102	55 - 130
1,2,4-Trichlorobenzene	20.0	20.21		ug/L		101	40 - 135
1,1,1-Trichloroethane	20.0	21.88		ug/L		109	60 - 125
1,1,2-Trichloroethane	20.0	21.30		ug/L		107	75 - 125
Trichloroethene	20.0	22.61		ug/L		113	70 - 130
Trichlorofluoromethane	20.0	24.92		ug/L		125	55 - 145
1,2,3-Trichloropropane	20.0	17.14		ug/L		86	60 - 150
1,2,4-Trimethylbenzene	20.0	20.22		ug/L		101	70 - 140
1,3,5-Trimethylbenzene	20.0	21.41		ug/L		107	70 - 140
Vinyl chloride	20.0	24.47		ug/L		122	45 - 135
Xylenes, Total	40.0	41.98		ug/L		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*
Dibromofluoromethane (Surr)	*95*		*75 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65169/7
Matrix: Water
Analysis Batch: 65169

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			10/20/14 22:40	1
Benzene	<0.500		0.500		ug/L			10/20/14 22:40	1
Bromobenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
Bromochloromethane	<5.00		5.00		ug/L			10/20/14 22:40	1
Bromodichloromethane	<1.00		1.00		ug/L			10/20/14 22:40	1
Bromoform	<5.00		5.00		ug/L			10/20/14 22:40	1
Bromomethane	<4.00		4.00		ug/L			10/20/14 22:40	1
2-Butanone (MEK)	<10.0		10.0		ug/L			10/20/14 22:40	1
n-Butylbenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
sec-Butylbenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
tert-Butylbenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
Carbon disulfide	<1.00		1.00		ug/L			10/20/14 22:40	1
Carbon tetrachloride	<2.00		2.00		ug/L			10/20/14 22:40	1
Chlorobenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
Chlorodibromomethane	<5.00		5.00		ug/L			10/20/14 22:40	1
Chloroethane	<4.00		4.00		ug/L			10/20/14 22:40	1
Chloroform	<1.00		1.00		ug/L			10/20/14 22:40	1
Chloromethane	<3.00		3.00		ug/L			10/20/14 22:40	1
2-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 22:40	1
4-Chlorotoluene	<1.00		1.00		ug/L			10/20/14 22:40	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			10/20/14 22:40	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			10/20/14 22:40	1
Dibromomethane	<1.00		1.00		ug/L			10/20/14 22:40	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			10/20/14 22:40	1
1,1-Dichloroethane	<1.00		1.00		ug/L			10/20/14 22:40	1
1,2-Dichloroethane	<1.00		1.00		ug/L			10/20/14 22:40	1
1,1-Dichloroethene	<2.00		2.00		ug/L			10/20/14 22:40	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 22:40	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			10/20/14 22:40	1
1,2-Dichloropropane	<1.00		1.00		ug/L			10/20/14 22:40	1
1,3-Dichloropropane	<1.00		1.00		ug/L			10/20/14 22:40	1
2,2-Dichloropropane	<4.00		4.00		ug/L			10/20/14 22:40	1
1,1-Dichloropropene	<1.00		1.00		ug/L			10/20/14 22:40	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 22:40	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			10/20/14 22:40	1
Ethylbenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
Hexachlorobutadiene	<5.00		5.00		ug/L			10/20/14 22:40	1
Hexane	<1.00		1.00		ug/L			10/20/14 22:40	1
Isopropylbenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
p-Isopropyltoluene	<1.00		1.00		ug/L			10/20/14 22:40	1
Methylene Chloride	<5.00		5.00		ug/L			10/20/14 22:40	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			10/20/14 22:40	1
Naphthalene	<5.00		5.00		ug/L			10/20/14 22:40	1
N-Propylbenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
Styrene	<1.00		1.00		ug/L			10/20/14 22:40	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65169/7
Matrix: Water
Analysis Batch: 65169

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 22:40	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			10/20/14 22:40	1
Tetrachloroethene	<1.00		1.00		ug/L			10/20/14 22:40	1
Toluene	<1.00		1.00		ug/L			10/20/14 22:40	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 22:40	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			10/20/14 22:40	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			10/20/14 22:40	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			10/20/14 22:40	1
Trichloroethene	<1.00		1.00		ug/L			10/20/14 22:40	1
Trichlorofluoromethane	<4.00		4.00		ug/L			10/20/14 22:40	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			10/20/14 22:40	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			10/20/14 22:40	1
Vinyl chloride	<1.00		1.00		ug/L			10/20/14 22:40	1
Xylenes, Total	<3.00		3.00		ug/L			10/20/14 22:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*10/20/14 22:40*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 120*		*10/20/14 22:40*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*10/20/14 22:40*	*1*

Lab Sample ID: LCS 310-65169/4
Matrix: Water
Analysis Batch: 65169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	32.45		ug/L		81	60 - 150
Benzene	20.0	19.20		ug/L		96	70 - 130
Bromobenzene	20.0	18.62		ug/L		93	75 - 130
Bromochloromethane	20.0	20.47		ug/L		102	65 - 145
Bromodichloromethane	20.0	18.79		ug/L		94	60 - 130
Bromoform	20.0	14.88		ug/L		74	30 - 125
Bromomethane	20.0	19.55		ug/L		98	35 - 130
2-Butanone (MEK)	40.0	33.65		ug/L		84	55 - 140
n-Butylbenzene	20.0	19.18		ug/L		96	55 - 135
sec-Butylbenzene	20.0	20.14		ug/L		101	65 - 135
tert-Butylbenzene	20.0	20.28		ug/L		101	60 - 135
Carbon disulfide	20.0	18.23		ug/L		91	40 - 130
Carbon tetrachloride	20.0	19.58		ug/L		98	55 - 130
Chlorobenzene	20.0	18.48		ug/L		92	75 - 125
Chlorodibromomethane	20.0	18.92		ug/L		95	45 - 125
Chloroethane	20.0	21.81		ug/L		109	55 - 135
Chloroform	20.0	18.36		ug/L		92	70 - 125
Chloromethane	20.0	20.38		ug/L		102	30 - 125
2-Chlorotoluene	20.0	18.90		ug/L		95	75 - 135
4-Chlorotoluene	20.0	19.09		ug/L		95	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	14.09		ug/L		70	35 - 130
1,2-Dibromoethane (EDB)	20.0	19.60		ug/L		98	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-65169/4
Matrix: Water
Analysis Batch: 65169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	19.47		ug/L		97	75 - 130
1,2-Dichlorobenzene	20.0	17.63		ug/L		88	65 - 135
1,3-Dichlorobenzene	20.0	18.03		ug/L		90	70 - 130
1,4-Dichlorobenzene	20.0	17.35		ug/L		87	60 - 140
Dichlorodifluoromethane	20.0	21.01		ug/L		105	35 - 130
1,1-Dichloroethane	20.0	19.40		ug/L		97	60 - 130
1,2-Dichloroethane	20.0	19.98		ug/L		100	65 - 140
1,1-Dichloroethene	20.0	19.14		ug/L		96	60 - 135
cis-1,2-Dichloroethene	20.0	19.91		ug/L		100	70 - 135
trans-1,2-Dichloroethene	20.0	19.16		ug/L		96	60 - 145
1,2-Dichloropropane	20.0	19.79		ug/L		99	65 - 130
1,3-Dichloropropane	20.0	19.66		ug/L		98	75 - 125
2,2-Dichloropropane	20.0	18.23		ug/L		91	25 - 120
1,1-Dichloropropene	20.0	20.15		ug/L		101	60 - 140
cis-1,3-Dichloropropene	20.0	19.21		ug/L		96	30 - 120
trans-1,3-Dichloropropene	20.0	17.76		ug/L		89	35 - 120
Ethylbenzene	20.0	19.18		ug/L		96	70 - 130
Hexachlorobutadiene	20.0	19.33		ug/L		97	60 - 135
Hexane	20.0	17.90		ug/L		90	40 - 135
Isopropylbenzene	20.0	19.81		ug/L		99	70 - 125
p-Isopropyltoluene	20.0	19.34		ug/L		97	60 - 140
Methylene Chloride	20.0	19.03		ug/L		95	55 - 145
Methyl tert-butyl ether	20.0	19.89		ug/L		99	50 - 135
Naphthalene	20.0	17.73		ug/L		89	40 - 135
N-Propylbenzene	20.0	19.51		ug/L		98	70 - 135
Styrene	20.0	19.30		ug/L		96	70 - 130
1,1,1,2-Tetrachloroethane	20.0	18.68		ug/L		93	65 - 120
1,1,2,2-Tetrachloroethane	20.0	14.90		ug/L		75	65 - 130
Tetrachloroethene	20.0	21.63		ug/L		108	70 - 135
Toluene	20.0	19.66		ug/L		98	70 - 135
1,2,3-Trichlorobenzene	20.0	18.58		ug/L		93	55 - 130
1,2,4-Trichlorobenzene	20.0	18.17		ug/L		91	40 - 135
1,1,1-Trichloroethane	20.0	20.33		ug/L		102	60 - 125
1,1,2-Trichloroethane	20.0	19.18		ug/L		96	75 - 125
Trichloroethene	20.0	20.60		ug/L		103	70 - 130
Trichlorofluoromethane	20.0	22.36		ug/L		112	55 - 145
1,2,3-Trichloropropane	20.0	16.83		ug/L		84	60 - 150
1,2,4-Trimethylbenzene	20.0	19.15		ug/L		96	70 - 140
1,3,5-Trimethylbenzene	20.0	19.97		ug/L		100	70 - 140
Vinyl chloride	20.0	20.90		ug/L		104	45 - 135
Xylenes, Total	40.0	38.31		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 120*
Toluene-d8 (Surr)	*94*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-65328/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65328

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			10/21/14 08:54	1
Trichloroethene	<1.00		1.00		ug/L			10/21/14 08:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*10/21/14 08:54*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*10/21/14 08:54*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*10/21/14 08:54*	*1*

Lab Sample ID: LCS 310-65328/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65328

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	20.0	20.40		ug/L		102	70 - 135
Trichloroethene	20.0	20.16		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*
Dibromofluoromethane (Surr)	*105*		*75 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-65422/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65422

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			10/21/14 13:27	1
Chloride	<1.00		1.00		mg/L			10/21/14 13:27	1

Lab Sample ID: LCS 310-65422/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65422

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.726		mg/L		103	90 - 110
Chloride	7.50	7.811		mg/L		104	90 - 110

Lab Sample ID: 310-41248-1 MS — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 65422

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	53.9		25.0	84.01		mg/L		120	80 - 120
Chloride	16.8		25.0	42.71		mg/L		104	80 - 120

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 310-41248-1 MSD — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 65422

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	53.9		25.0	84.14	F1	mg/L		121	80 - 120	0	15
Chloride	16.8		25.0	43.08		mg/L		105	80 - 120	1	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-64314/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64606 — **Prep Batch: 64314**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100		mg/L		10/13/14 09:35	10/14/14 14:57	1
Manganese	<0.0100		0.0100		mg/L		10/13/14 09:35	10/14/14 14:57	1

Lab Sample ID: LCS 310-64314/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64606 — **Prep Batch: 64314**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	1.00	1.064		mg/L		106	85 - 115

Lab Sample ID: LCS 310-64314/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64819 — **Prep Batch: 64314**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.096		mg/L		105	85 - 110

Lab Sample ID: 310-41248-7 MS — **Client Sample ID: MW-31**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64606 — **Prep Batch: 64314**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.213		2.00	2.451		mg/L		112	75 - 125
Manganese	0.248		1.00	1.302		mg/L		105	80 - 115

Lab Sample ID: 310-41248-6 DU — **Client Sample ID: MW-29**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64606 — **Prep Batch: 64314**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	0.130		0.1432		mg/L		10	20
Manganese	0.227		0.2334		mg/L		3	15

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-64641/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			10/14/14 15:45	1

Lab Sample ID: LCS 310-64641/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	5.169		mg/L		103	90 - 110

Lab Sample ID: MB 310-64957/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			10/16/14 15:12	1

Lab Sample ID: LCS 310-64957/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.903		mg/L		98	90 - 110

Lab Sample ID: MB 310-65092/11 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			10/17/14 12:01	1

Lab Sample ID: LCS 310-65092/12 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 65092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.868		mg/L		97	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-64256/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64256

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			10/11/14 11:34	1

Method: SM 4500 NO2 B - Nitrogen, Nitrite (Continued)

Lab Sample ID: LCS 310-64256/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64256

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N			0.500	0.5408		mg/L		108	90 - 110		

Lab Sample ID: 310-41248-1 MS — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64256

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N	<0.100		0.400	0.4247		mg/L		106	75 - 125		

Lab Sample ID: 310-41248-1 MSD — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64256

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.100		0.400	0.4379		mg/L		109	75 - 125	3	10

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-64255/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64255

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			10/11/14 11:05	1

Lab Sample ID: LCS 310-64255/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 64255

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			1.90	1.994		mg/L		105	90 - 110		

Lab Sample ID: 310-41248-1 MS — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64255

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	<0.100		0.200	0.2064		mg/L		103	75 - 125		

Lab Sample ID: 310-41248-1 MSD — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 64255

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	<0.100		0.200	0.2139		mg/L		107	75 - 125	4	20

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 65166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-1	MW-19	Total/NA	Ground Water	8260C	
310-41248-2	MW-24	Total/NA	Ground Water	8260C	
310-41248-3	MW-25S	Total/NA	Ground Water	8260C	
310-41248-4	MW-26S	Total/NA	Ground Water	8260C	
310-41248-5	MW-28	Total/NA	Ground Water	8260C	
310-41248-6	MW-29	Total/NA	Ground Water	8260C	
310-41248-7	MW-31	Total/NA	Ground Water	8260C	
LCS 310-65166/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-65166/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 65169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-8	MW-53	Total/NA	Ground Water	8260C	
310-41248-9	Trip Blank	Total/NA	Water	8260C	
LCS 310-65169/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-65169/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 65328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-5	MW-28	Total/NA	Ground Water	8260C	
310-41248-6	MW-29	Total/NA	Ground Water	8260C	
LCS 310-65328/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-65328/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 65422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-1	MW-19	Total/NA	Ground Water	9056A	
310-41248-1 MS	MW-19	Total/NA	Ground Water	9056A	
310-41248-1 MSD	MW-19	Total/NA	Ground Water	9056A	
310-41248-2	MW-24	Total/NA	Ground Water	9056A	
310-41248-3	MW-25S	Total/NA	Ground Water	9056A	
310-41248-4	MW-26S	Total/NA	Ground Water	9056A	
310-41248-5	MW-28	Total/NA	Ground Water	9056A	
310-41248-6	MW-29	Total/NA	Ground Water	9056A	
310-41248-7	MW-31	Total/NA	Ground Water	9056A	
310-41248-8	MW-53	Total/NA	Ground Water	9056A	
LCS 310-65422/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-65422/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 64314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-1	MW-19	Total/NA	Ground Water	3010A	
310-41248-2	MW-24	Total/NA	Ground Water	3010A	
310-41248-3	MW-25S	Total/NA	Ground Water	3010A	
310-41248-4	MW-26S	Total/NA	Ground Water	3010A	
310-41248-5	MW-28	Total/NA	Ground Water	3010A	

Metals (Continued)

Prep Batch: 64314 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-6	MW-29	Total/NA	Ground Water	3010A	
310-41248-6 DU	MW-29	Total/NA	Ground Water	3010A	
310-41248-7	MW-31	Total/NA	Ground Water	3010A	
310-41248-7 MS	MW-31	Total/NA	Ground Water	3010A	
310-41248-8	MW-53	Total/NA	Ground Water	3010A	
LCS 310-64314/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-64314/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 64606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-1	MW-19	Total/NA	Ground Water	6010C	64314
310-41248-2	MW-24	Total/NA	Ground Water	6010C	64314
310-41248-3	MW-25S	Total/NA	Ground Water	6010C	64314
310-41248-4	MW-26S	Total/NA	Ground Water	6010C	64314
310-41248-5	MW-28	Total/NA	Ground Water	6010C	64314
310-41248-6	MW-29	Total/NA	Ground Water	6010C	64314
310-41248-6 DU	MW-29	Total/NA	Ground Water	6010C	64314
310-41248-7	MW-31	Total/NA	Ground Water	6010C	64314
310-41248-7 MS	MW-31	Total/NA	Ground Water	6010C	64314
310-41248-8	MW-53	Total/NA	Ground Water	6010C	64314
LCS 310-64314/2-A	Lab Control Sample	Total/NA	Water	6010C	64314
MB 310-64314/1-A	Method Blank	Total/NA	Water	6010C	64314

Analysis Batch: 64819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-64314/2-A	Lab Control Sample	Total/NA	Water	6010C	64314

General Chemistry

Analysis Batch: 64255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-1	MW-19	Total/NA	Ground Water	SM 4500 NO3 E	
310-41248-1 MS	MW-19	Total/NA	Ground Water	SM 4500 NO3 E	
310-41248-1 MSD	MW-19	Total/NA	Ground Water	SM 4500 NO3 E	
310-41248-2	MW-24	Total/NA	Ground Water	SM 4500 NO3 E	
310-41248-3	MW-25S	Total/NA	Ground Water	SM 4500 NO3 E	
310-41248-4	MW-26S	Total/NA	Ground Water	SM 4500 NO3 E	
310-41248-5	MW-28	Total/NA	Ground Water	SM 4500 NO3 E	
310-41248-6	MW-29	Total/NA	Ground Water	SM 4500 NO3 E	
310-41248-7	MW-31	Total/NA	Ground Water	SM 4500 NO3 E	
310-41248-8	MW-53	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-64255/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-64255/5	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 64256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-1	MW-19	Total/NA	Ground Water	SM 4500 NO2 B	
310-41248-1 MS	MW-19	Total/NA	Ground Water	SM 4500 NO2 B	
310-41248-1 MSD	MW-19	Total/NA	Ground Water	SM 4500 NO2 B	
310-41248-2	MW-24	Total/NA	Ground Water	SM 4500 NO2 B	

General Chemistry (Continued)

Analysis Batch: 64256 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-3	MW-25S	Total/NA	Ground Water	SM 4500 NO2 B	
310-41248-4	MW-26S	Total/NA	Ground Water	SM 4500 NO2 B	
310-41248-5	MW-28	Total/NA	Ground Water	SM 4500 NO2 B	
310-41248-6	MW-29	Total/NA	Ground Water	SM 4500 NO2 B	
310-41248-7	MW-31	Total/NA	Ground Water	SM 4500 NO2 B	
310-41248-8	MW-53	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-64256/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-64256/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 64632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-1	MW-19	Total/NA	Ground Water	9060A	
310-41248-2	MW-24	Total/NA	Ground Water	9060A	
310-41248-4	MW-26S	Total/NA	Ground Water	9060A	
310-41248-6	MW-29	Total/NA	Ground Water	9060A	

Analysis Batch: 64641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-64641/4	Lab Control Sample	Total/NA	Water	9060A	
MB 310-64641/3	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 64957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-7	MW-31	Total/NA	Ground Water	9060A	
310-41248-8	MW-53	Total/NA	Ground Water	9060A	
LCS 310-64957/6	Lab Control Sample	Total/NA	Water	9060A	
MB 310-64957/5	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 65092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-41248-3	MW-25S	Total/NA	Ground Water	9060A	
310-41248-5	MW-28	Total/NA	Ground Water	9060A	
LCS 310-65092/12	Lab Control Sample	Total/NA	Water	9060A	
MB 310-65092/11	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-19

Lab Sample ID: 310-41248-1
Date Collected: 10/10/14 11:35
Matrix: Ground Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	65166	10/20/14 17:09	SJN	TAL CF
Total/NA	Analysis	9056A		5	65422	10/21/14 13:27	CDD	TAL CF
Total/NA	Prep	3010A			64314	10/13/14 09:35	CJT	TAL CF
Total/NA	Analysis	6010C		1	64606	10/14/14 15:19	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 22:25	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64256	10/11/14 11:34	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64255	10/11/14 11:07	KMS	TAL CF

Client Sample ID: MW-24

Lab Sample ID: 310-41248-2
Date Collected: 10/10/14 07:40
Matrix: Ground Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65166	10/20/14 16:17	SJN	TAL CF
Total/NA	Analysis	9056A		5	65422	10/21/14 13:27	CDD	TAL CF
Total/NA	Prep	3010A			64314	10/13/14 09:35	CJT	TAL CF
Total/NA	Analysis	6010C		1	64606	10/14/14 15:21	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 19:50	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64256	10/11/14 11:34	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64255	10/11/14 11:11	KMS	TAL CF

Client Sample ID: MW-25S

Lab Sample ID: 310-41248-3
Date Collected: 10/10/14 09:40
Matrix: Ground Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	65166	10/20/14 17:34	SJN	TAL CF
Total/NA	Analysis	9056A		5	65422	10/21/14 13:27	CDD	TAL CF
Total/NA	Prep	3010A			64314	10/13/14 09:35	CJT	TAL CF
Total/NA	Analysis	6010C		3	64606	10/14/14 15:23	OAD	TAL CF
Total/NA	Analysis	9060A		10	65092	10/17/14 10:07	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64256	10/11/14 11:34	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64255	10/11/14 11:12	KMS	TAL CF

Client Sample ID: MW-26S

Lab Sample ID: 310-41248-4
Date Collected: 10/10/14 09:00
Matrix: Ground Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	65166	10/20/14 18:00	SJN	TAL CF
Total/NA	Analysis	9056A		5	65422	10/21/14 13:27	CDD	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-26S

Lab Sample ID: 310-41248-4
Date Collected: 10/10/14 09:00
Matrix: Ground Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			64314	10/13/14 09:35	CJT	TAL CF
Total/NA	Analysis	6010C		1	64606	10/14/14 15:25	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 23:16	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64256	10/11/14 11:34	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64255	10/11/14 11:14	KMS	TAL CF

Client Sample ID: MW-28

Lab Sample ID: 310-41248-5
Date Collected: 10/10/14 10:40
Matrix: Ground Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	65166	10/20/14 18:25	SJN	TAL CF
Total/NA	Analysis	8260C		1000	65328	10/21/14 10:24	SJN	TAL CF
Total/NA	Analysis	9056A		5	65422	10/21/14 13:27	CDD	TAL CF
Total/NA	Prep	3010A			64314	10/13/14 09:35	CJT	TAL CF
Total/NA	Analysis	6010C		4	64606	10/14/14 15:27	OAD	TAL CF
Total/NA	Analysis	9060A		4	65092	10/17/14 10:23	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64256	10/11/14 11:34	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64255	10/11/14 11:15	KMS	TAL CF

Client Sample ID: MW-29

Lab Sample ID: 310-41248-6
Date Collected: 10/10/14 11:05
Matrix: Ground Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	65166	10/20/14 18:51	SJN	TAL CF
Total/NA	Analysis	8260C		1000	65328	10/21/14 10:47	SJN	TAL CF
Total/NA	Analysis	9056A		5	65422	10/21/14 13:27	CDD	TAL CF
Total/NA	Prep	3010A			64314	10/13/14 09:35	CJT	TAL CF
Total/NA	Analysis	6010C		1	64606	10/14/14 15:29	OAD	TAL CF
Total/NA	Analysis	9060A		1	64632	10/14/14 23:53	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64256	10/11/14 11:34	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64255	10/11/14 11:19	KMS	TAL CF

Client Sample ID: MW-31

Lab Sample ID: 310-41248-7
Date Collected: 10/10/14 08:30
Matrix: Ground Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	65166	10/20/14 19:16	SJN	TAL CF
Total/NA	Analysis	9056A		5	65422	10/21/14 13:27	CDD	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Client Sample ID: MW-31

Lab Sample ID: 310-41248-7

Date Collected: 10/10/14 08:30
Matrix: Ground Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			64314	10/13/14 09:35	CJT	TAL CF
Total/NA	Analysis	6010C		1	64606	10/14/14 15:37	OAD	TAL CF
Total/NA	Analysis	9060A		1	64957	10/16/14 19:09	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64256	10/11/14 11:34	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64255	10/11/14 11:21	KMS	TAL CF

Client Sample ID: MW-53

Lab Sample ID: 310-41248-8

Date Collected: 10/10/14 08:10
Matrix: Ground Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65169	10/21/14 06:43	SJN	TAL CF
Total/NA	Analysis	9056A		5	65422	10/21/14 13:27	CDD	TAL CF
Total/NA	Prep	3010A			64314	10/13/14 09:35	CJT	TAL CF
Total/NA	Analysis	6010C		1	64606	10/14/14 15:41	OAD	TAL CF
Total/NA	Analysis	9060A		1	64957	10/16/14 19:27	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	64256	10/11/14 11:34	KMS	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	64255	10/11/14 11:22	KMS	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-41248-9

Date Collected: 10/10/14 00:00
Matrix: Water
Date Received: 10/11/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	65169	10/20/14 23:06	SJN	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-15
Illinois	NELAP	5	200024	11-29-14
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14 *
Oregon	NELAP	10	IA100001	09-29-15
Wisconsin	State Program	5	999917270	08-31-15

* Certification renewal pending - certification considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-41248-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Te
Cedar Falls Facility

310-41248 Chain of Custody

Client: Golder Assoc Project: Electrolux

City: _____ State: _____

Date: 10-11-14 Receiver's Initials: CH Time (Delivered): 9:50

Temperature Record:

Cooler ID# (If Applicable) _____

Uncorrected Temp: 0.3 °C

Corrected Temp: 0.2 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Temperature Log Form
Cedar Falls Facility

Client: Golder Assoc Project: Electrolux

City: _____ State: _____

Date: 10-11-14 Receiver's Initials: CH Time (Delivered): 9:50

Temperature Record:

Cooler ID# (If Applicable): 025

Uncorrected Temp: 0.4 °C

Corrected Temp: 0.3 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [x] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [x] Yes [ ] No

Cooler Custody Seals Intact? [x] Yes [ ] No [ ] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Andrew J Koff
(Signature)

Your PO #:
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: Jpeace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red & White Label)	Preservative: HCl (Blue & White Label)	Preservative: NaOH (Orange & White Label)	Preservative: H_2SO_4 Plastic (Yellow & White Label)	Preservative: H_2SO_4 Glass(Yellow & White Label)	Preservative: None (Black & White Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other Specify:Stormwater	Analyze For: 8260 Volatiles	Analyze For: Nitrate, Nitrite	Analyze For: Sulfate, Chloride	Analyze For: TOC	Analyze For: Iron, Manganese	E-mail results	Send QC with report
MW-19	10/10/14	1135	6	X			X	X	X		X		X		X						X	X	X	X	X	X	X
MW-24		740																									
MW-25S		940																									
MW-26S		900																									
MW-28		1040																									
MW-29		1105																									
MW-31		830																									
MW-53		810																									
Trip Blank			3																								

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	10/10/14	1300						
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	10/11/14	950						

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-19	310-41248-B-1	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-19	310-41248-C-1	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-24	310-41248-B-2	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-24	310-41248-C-2	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-25S	310-41248-B-3	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-25S	310-41248-C-3	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-26S	310-41248-B-4	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-26S	310-41248-C-4	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-28	310-41248-B-5	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-28	310-41248-C-5	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-29	310-41248-B-6	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-29	310-41248-C-6	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-31	310-41248-B-7	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-31	310-41248-C-7	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-53	310-41248-B-8	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-53	310-41248-C-8	Plastic 250ml - with Nitric Acid	<2	_____	_____

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-41248-1
SDG Number: 103-87305

Login Number: 41248
List Number: 1
Creator: Facciani, Melene K

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Phone: (412) 826-5245
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October 24, 2014

Jim Peace
Golder Associates
670 N Commercial St
Suite 103
Manchester, NH 03101

RE: **ELECTROLUX / 103087305**
Microseeps Workorder: 13619

Dear Jim Peace:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday, October 13, 2014. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robbin Robl 10/24/2014
rrobl@microseeps.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 36

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 13619 ELECTROLUX / 103087305

Lab ID	Sample ID	Matrix	Date Collected	Date Received
136190001	MW-62	Water	10/7/2014 15:15	10/13/2014 11:57
136190002	MW-25D	Water	10/7/2014 16:20	10/13/2014 11:57
136190003	DUP-01	Water	10/7/2014 00:00	10/13/2014 11:57
136190004	MW-8	Water	10/8/2014 09:20	10/13/2014 11:57
136190005	MW-26D	Water	10/8/2014 11:50	10/13/2014 11:57
136190006	MW-61	Water	10/8/2014 10:30	10/13/2014 11:57
136190007	MW-63	Water	10/8/2014 15:00	10/13/2014 11:57
136190008	MW-15	Water	10/9/2014 16:30	10/13/2014 11:57
136190009	MW-43D	Water	10/9/2014 08:45	10/13/2014 11:57
136190010	MW-46	Water	10/9/2014 12:35	10/13/2014 11:57
136190011	MW-47D	Water	10/9/2014 10:00	10/13/2014 11:57
136190012	MW-57	Water	10/9/2014 14:15	10/13/2014 11:57
136190013	MW-64	Water	10/9/2014 15:40	10/13/2014 11:57
136190014	MW-65	Water	10/9/2014 11:15	10/13/2014 11:57
136190015	DUP-02	Water	10/9/2014 00:00	10/13/2014 11:57
136190016	MW-19	Water	10/10/2014 11:35	10/13/2014 11:57
136190017	MW-24	Water	10/10/2014 07:40	10/13/2014 11:57
136190018	MW-25S	Water	10/10/2014 09:40	10/13/2014 11:57
136190019	MW-26S	Water	10/10/2014 09:00	10/13/2014 11:57
136190020	MW-28	Water	10/10/2014 10:40	10/13/2014 11:57
136190021	MW-29	Water	10/10/2014 11:05	10/13/2014 11:57
136190022	MW-31	Water	10/10/2014 08:30	10/13/2014 11:57
136190023	MW-53	Water	10/10/2014 08:10	10/13/2014 11:57

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PROJECT SUMMARY

Workorder: 13619 ELECTROLUX / 103087305

Batch Comments

Batch: DISG/4107 - AM20GAX Water QC

The percent recovery for the laboratory control sample was below laboratory control limits. Analytes Propene and n-Butane. Results associated to the analytes in samples may be bias low.

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190001** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-62** Date Collected: 10/7/2014 15:15

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**510**	ug/l	0.10	0.042	1			10/19/2014 16:02	GT	
Ethane	**0.10**	ug/l	0.025	0.0020	1			10/19/2014 16:02	GT	
Ethene	**0.89**	ug/l	0.025	0.0030	1			10/19/2014 16:02	GT	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190002** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-25D** Date Collected: 10/7/2014 16:20

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**12**	ug/l	0.10	0.042	1			10/19/2014 16:20	GT	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			10/19/2014 16:20	GT	
Ethene	**0.16**	ug/l	0.025	0.0030	1			10/19/2014 16:20	GT	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190003** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **DUP-01** Date Collected: 10/7/2014 00:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**10**	ug/l	0.10	0.042	1			10/19/2014 16:43	GT	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			10/19/2014 16:43	GT	
Ethene	**0.16**	ug/l	0.025	0.0030	1			10/19/2014 16:43	GT	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190004** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-8** Date Collected: 10/8/2014 09:20

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**3.3**	ug/l	0.10	0.042	1			10/21/2014 09:07	BW	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			10/21/2014 09:07	BW	
Ethene	**<0.025**	ug/l	0.025	0.0030	1			10/21/2014 09:07	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190005** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-26D** Date Collected: 10/8/2014 11:50

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**10**	ug/l	0.10	0.042	1			10/21/2014 09:17	BW	
Ethane	**0.12**	ug/l	0.025	0.0020	1			10/21/2014 09:17	BW	
Ethene	**0.22**	ug/l	0.025	0.0030	1			10/21/2014 09:17	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190006** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-61** Date Collected: 10/8/2014 10:30

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**6.5**	ug/l	0.10	0.042	1			10/21/2014 09:27	BW	
Ethane	**0.76**	ug/l	0.025	0.0020	1			10/21/2014 09:27	BW	
Ethene	**0.64**	ug/l	0.025	0.0030	1			10/21/2014 09:27	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190007** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-63** Date Collected: 10/8/2014 15:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.2**	ug/l	0.10	0.042	1			10/21/2014 09:37	BW	
Ethane	**0.12**	ug/l	0.025	0.0020	1			10/21/2014 09:37	BW	
Ethene	**0.12**	ug/l	0.025	0.0030	1			10/21/2014 09:37	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190008** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-15** Date Collected: 10/9/2014 16:30

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.1**	ug/l	0.10	0.042	1			10/21/2014 09:47	BW	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			10/21/2014 09:47	BW	
Ethene	**0.064**	ug/l	0.025	0.0030	1			10/21/2014 09:47	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190009** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-43D** Date Collected: 10/9/2014 08:45

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**3.8**	ug/l	0.10	0.042	1			10/21/2014 09:57	BW	
Ethane	**0.47**	ug/l	0.025	0.0020	1			10/21/2014 09:57	BW	
Ethene	**0.14**	ug/l	0.025	0.0030	1			10/21/2014 09:57	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190010** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-46** Date Collected: 10/9/2014 12:35

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**7.1**	ug/l	0.10	0.042	1			10/21/2014 10:07	BW	
Ethane	**1.4**	ug/l	0.025	0.0020	1			10/21/2014 10:07	BW	
Ethene	**0.88**	ug/l	0.025	0.0030	1			10/21/2014 10:07	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190011** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-47D** Date Collected: 10/9/2014 10:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**180**	ug/l	0.10	0.042	1			10/22/2014 07:38	BW	
Ethane	**2.8**	ug/l	0.025	0.0020	1			10/22/2014 07:38	BW	
Ethene	**280**	ug/l	0.025	0.0030	1			10/22/2014 07:38	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190012** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-57** Date Collected: 10/9/2014 14:15

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.0**	ug/l	0.10	0.042	1			10/22/2014 07:50	BW	
Ethane	**0.044**	ug/l	0.025	0.0020	1			10/22/2014 07:50	BW	
Ethene	**0.17**	ug/l	0.025	0.0030	1			10/22/2014 07:50	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190013** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-64** Date Collected: 10/9/2014 15:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**1.4**	ug/l	0.10	0.042	1			10/22/2014 08:01	BW	
Ethane	**0.044**	ug/l	0.025	0.0020	1			10/22/2014 08:01	BW	
Ethene	**0.12**	ug/l	0.025	0.0030	1			10/22/2014 08:01	BW	

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Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190014** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-65** Date Collected: 10/9/2014 11:15

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**36**	ug/l	0.10	0.042	1			10/22/2014 08:10	BW	
Ethane	**0.10**	ug/l	0.025	0.0020	1			10/22/2014 08:10	BW	
Ethene	**0.29**	ug/l	0.025	0.0030	1			10/22/2014 08:10	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190015** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **DUP-02** Date Collected: 10/9/2014 00:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**44**	ug/l	0.10	0.042	1			10/22/2014 08:23	BW	
Ethane	**0.12**	ug/l	0.025	0.0020	1			10/22/2014 08:23	BW	
Ethene	**0.34**	ug/l	0.025	0.0030	1			10/22/2014 08:23	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190016** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-19** Date Collected: 10/10/2014 11:35

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.50**	ug/l	0.10	0.042	1			10/23/2014 08:03	BW	
Ethane	**2.6**	ug/l	0.025	0.0020	1			10/23/2014 08:03	BW	
Ethene	**2.4**	ug/l	0.025	0.0030	1			10/23/2014 08:03	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190017** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-24** Date Collected: 10/10/2014 07:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.30**	ug/l	0.10	0.042	1			10/23/2014 08:16	BW	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			10/23/2014 08:16	BW	
Ethene	**0.12**	ug/l	0.025	0.0030	1			10/23/2014 08:16	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190018** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-25S** Date Collected: 10/10/2014 09:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2400**	ug/l	0.10	0.042	1			10/23/2014 08:27	BW	
Ethane	**0.42**	ug/l	0.025	0.0020	1			10/23/2014 08:27	BW	
Ethene	**980**	ug/l	0.025	0.0030	1			10/23/2014 08:27	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190019** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-26S** Date Collected: 10/10/2014 09:00

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2.1**	ug/l	0.10	0.042	1			10/23/2014 08:40	BW	
Ethane	**0.58**	ug/l	0.025	0.0020	1			10/23/2014 08:40	BW	
Ethene	**0.30**	ug/l	0.025	0.0030	1			10/23/2014 08:40	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190020** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-28** Date Collected: 10/10/2014 10:40

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**1200**	ug/l	0.10	0.042	1			10/23/2014 08:54	BW	
Ethane	**0.78**	ug/l	0.025	0.0020	1			10/23/2014 08:54	BW	
Ethene	**1500**	ug/l	0.025	0.0030	1			10/23/2014 08:54	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190021** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-29** Date Collected: 10/10/2014 11:05

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.38**	ug/l	0.10	0.042	1			10/23/2014 09:04	BW	
Ethane	**0.20**	ug/l	0.025	0.0020	1			10/23/2014 09:04	BW	
Ethene	**1.6**	ug/l	0.025	0.0030	1			10/23/2014 09:04	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190022** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-31** Date Collected: 10/10/2014 08:30

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**5.7**	ug/l	0.10	0.042	1			10/23/2014 09:14	BW	
Ethane	**0.55**	ug/l	0.025	0.0020	1			10/23/2014 09:14	BW	
Ethene	**0.095**	ug/l	0.025	0.0030	1			10/23/2014 09:14	BW	

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ANALYTICAL RESULTS

Workorder: 13619 ELECTROLUX / 103087305

Lab ID: **136190023** Date Received: 10/13/2014 11:57 Matrix: Water
Sample ID: **MW-53** Date Collected: 10/10/2014 08:10

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**0.27**	ug/l	0.10	0.042	1			10/23/2014 09:26	BW	
Ethane	**<0.025**	ug/l	0.025	0.0020	1			10/23/2014 09:26	BW	
Ethene	**0.026**	ug/l	0.025	0.0030	1			10/23/2014 09:26	BW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 13619 ELECTROLUX / 103087305

DEFINITIONS/QUALIFIERS

Disclaimer : The Pennsylvania Department of Environmental Protection (PADEP) has decided to no longer recognize analyses that do not produce data for primary compliance, for NELAP accreditation. The methods affected by this decision are AM20GAx, AM21G, SW846 7199 and AM4.02. The laboratory shall continue to administer the NELAP/TNI standard requirements in the performance of these methods.

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).

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QUALITY CONTROL DATA

Workorder: 13619 ELECTROLUX / 103087305

QC Batch: DISG/4107 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 136190001, 136190002, 136190003

METHOD BLANK: 31035

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 31037 31039

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	700	700	94	94	80-120	0	20	
Ethane	ug/l	38	33	32	87	86	80-120	1.2	20	
Ethene	ug/l	35	30	30	86	85	80-120	1.2	20	

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QUALITY CONTROL DATA

Workorder: 13619 ELECTROLUX / 103087305

QC Batch: DISG/4110 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 136190004, 136190005, 136190006, 136190007, 136190008, 136190009, 136190010

METHOD BLANK: 31051

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 31052 31053

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	720	710	96	95	80-120	1	20	
Ethane	ug/l	38	39	39	104	103	80-120	0.97	20	
Ethene	ug/l	35	37	36	104	103	80-120	0.97	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 31067 31068 Original: 136210002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	0.67	40	41	41	101	100	70-130	1	20	
Ethane	ug/l	0.012	76	74	73	97	96	70-130	1	20	
Ethene	ug/l	0.024	71	68	67	96	95	70-130	1	20	

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QUALITY CONTROL DATA

Workorder: 13619 ELECTROLUX / 103087305

QC Batch: DISG/4112 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 136190011, 136190012, 136190013, 136190014, 136190015

METHOD BLANK: 31060

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 31061 31062

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	730	740	98	99	80-120	1	20	
Ethane	ug/l	38	39	40	103	107	80-120	3.8	20	
Ethene	ug/l	35	36	37	103	106	80-120	2.9	20	

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QUALITY CONTROL DATA

Workorder: 13619 ELECTROLUX / 103087305

QC Batch: DISG/4116 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 136190016, 136190017, 136190018, 136190019, 136190020, 136190021, 136190022, 136190023

METHOD BLANK: 31089

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.10	0.10	
Ethane	ug/l	<0.025	0.025	
Ethene	ug/l	<0.025	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 31090 31091

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	720	730	96	98	80-120	2.1	20	
Ethane	ug/l	38	38	39	102	104	80-120	1.9	20	
Ethene	ug/l	35	36	37	102	104	80-120	1.9	20	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 13619 ELECTROLUX / 103087305

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
136190001	MW-62			AM20GAX	DISG/4107
136190002	MW-25D			AM20GAX	DISG/4107
136190003	DUP-01			AM20GAX	DISG/4107
136190004	MW-8			AM20GAX	DISG/4110
136190005	MW-26D			AM20GAX	DISG/4110
136190006	MW-61			AM20GAX	DISG/4110
136190007	MW-63			AM20GAX	DISG/4110
136190008	MW-15			AM20GAX	DISG/4110
136190009	MW-43D			AM20GAX	DISG/4110
136190010	MW-46			AM20GAX	DISG/4110
136190011	MW-47D			AM20GAX	DISG/4112
136190012	MW-57			AM20GAX	DISG/4112
136190013	MW-64			AM20GAX	DISG/4112
136190014	MW-65			AM20GAX	DISG/4112
136190015	DUP-02			AM20GAX	DISG/4112
136190016	MW-19			AM20GAX	DISG/4116
136190017	MW-24			AM20GAX	DISG/4116
136190018	MW-25S			AM20GAX	DISG/4116
136190019	MW-26S			AM20GAX	DISG/4116
136190020	MW-28			AM20GAX	DISG/4116
136190021	MW-29			AM20GAX	DISG/4116
136190022	MW-31			AM20GAX	DISG/4116
136190023	MW-53			AM20GAX	DISG/4116

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CHAIN-OF-CUSTODY / Analytical Request Document

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13619

Page: 1 of 2

004189

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Golder Associates	Report To: Jim Peace	Attention:
Address: 670 N Commercial st	Copy To: Andrew Koff	Company Name:
Manchester, NH 03101		Address:
Email To: JPeace@golder.com	Purchase Order No.:	Pace Quote Reference:
Phone: 603 668 0660 Fax:	Project Name: Electrolux Jefferson	Pace Project Manager:
Requested Due Date/TAT:	Project Number: 123 87305	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: IA

Requested Analysis Filtered (Y/N): N

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other Na2S2O3	Analysis Test: MEE	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-62	WT	G	10/7/14	1515				2								X	X	N	
2	MW-25D				1620															
3	DUP-01				–															
4	MW-8			10/8/14	920															
5	MW-26D				1150															
6	MW-61				1030															
7	MW-63				1500															
8	MW-15			10/9/14	1630															
9	MW-43D				845															
10	MW-46				1235															
11	MW-47D				1000															
12	MW-57				1415															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Golder	10/10/14	1300	PACS	10/13/14	0830	Y	Y	Y	

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Andrew T Koff

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/10/14

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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13619

Page: 2 of 2

004190

Section A Required Client Information:

Company: Golder Associates
Address: 670 N Commercial St
Manchester, NH 03101
Email To: jpacce@golder.com
Phone: 603 668 0880 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Jim Pacce
Copy To: Andrew Koff
Purchase Order No.:
Project Name: Electrolux Jefferson
Project Number: 123-87305

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: IA

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Y/N — N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other $Na_2S_2O_3$	Analysis Test: MCL	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-64	WT	G	10/9/14	1540				2								X	X	N	
2	MW-65				1115															
3	DUP-02				—															
4	MW-19			10/10/14	1135															
5	MW-24				740															
6	MW-25S				940															
7	MW-26S				900															
8	MW-28				1040															
9	MW-29				1105															
10	MW-31				830															
11	MW-53				810															
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Golder	10/10/14	1300				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Andrew T Koff

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/10/14

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form

Client Name: Golder Project: Electrolux Lab Work Order: 13619

A. Shipping/Container Information (circle appropriate response)

Courier: FedEx UPS USPS Client Other:_____ Air bill Present: Yes No

Tracking Number: 771459123476

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other:_____

Type of Ice: Wet Blue None Ice Intact: Yes Melted

Cooler Temperature: 4°C Radiation Screened: Yes No Chain of Custody Present: Yes No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformanc
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC	✓			
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
Microseeps containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by: LJ Date: 10.13.14

Project Manager Review: RR Date: 10/13/14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-46049-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
12/31/2014 11:16:12 AM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-46049-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-46049-1

Comments
No additional comments.

Receipt
The samples were received on 12/18/2014 6:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 72459 recovered above the upper control limit for Chloroethane (30.7 %D), Bromoform (39.2 %D),and Trichlorofluoromethane (30.4 %D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-72459/3).

Method(s) 8260C: The laboratory control sample (LCS) for batch 72459 recovered outside control limits for the following analytes: 1,2,3-Trichlorobenzene, Bromoform, and Bromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 42670 recovered above the upper control limit for Tichloroethene (29 %D). The LCS associated with this CCV passes using CCV criteria for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-72670/6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-46049-1	Trip Blank	Water	12/18/14 00:00	12/18/14 18:30
310-46049-2	MW-65	Ground Water	12/18/14 11:55	12/18/14 18:30
310-46049-3	MW-47D	Ground Water	12/18/14 13:50	12/18/14 18:30
310-46049-4	Dup	Ground Water	12/18/14 12:15	12/18/14 18:30

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Client Sample ID: Trip Blank — Lab Sample ID: 310-46049-1

No Detections.

Client Sample ID: MW-65 — Lab Sample ID: 310-46049-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	22.9		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	1730		20.0		ug/L	20		8260C	Total/NA
Vinyl chloride	1.41		1.00		ug/L	1		8260C	Total/NA
Chloride	2.26		1.00		mg/L	1		9056A	Total/NA
Sulfate	1.98		1.00		mg/L	1		9056A	Total/NA
Calcium	131		1.00		mg/L	1		6010C	Total/NA
Iron	4.91		0.100		mg/L	1		6010C	Total/NA
Magnesium	31.6		1.00		mg/L	1		6010C	Total/NA
Manganese	0.345		0.0100		mg/L	1		6010C	Total/NA
Potassium	3.21		1.00		mg/L	1		6010C	Total/NA
Sodium	47.2		1.00		mg/L	1		6010C	Total/NA
Total Organic Carbon	4.46		1.00		mg/L	1		9060A	Total/NA
Alkalinity as CaCO3	530		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	530		5.00		mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-47D — Lab Sample ID: 310-46049-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	35700		100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	124		100		ug/L	100		8260C	Total/NA
Trichloroethene	25500		100		ug/L	100		8260C	Total/NA
Vinyl chloride	503		100		ug/L	100		8260C	Total/NA
Chloride	203		5.00		mg/L	5		9056A	Total/NA
Sulfate	12.5		1.00		mg/L	1		9056A	Total/NA
Calcium	163		1.00		mg/L	1		6010C	Total/NA
Iron	1.43		0.100		mg/L	1		6010C	Total/NA
Magnesium	51.2		1.00		mg/L	1		6010C	Total/NA
Manganese	0.723		0.0100		mg/L	1		6010C	Total/NA
Potassium	5.01		1.00		mg/L	1		6010C	Total/NA
Sodium	27.8		1.00		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.03		1.00		mg/L	1		9060A	Total/NA
Alkalinity as CaCO3	416		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	416		5.00		mg/L	1		SM 2320B	Total/NA

Client Sample ID: Dup — Lab Sample ID: 310-46049-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	20.8		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	1530		20.0		ug/L	20		8260C	Total/NA
Vinyl chloride	1.32		1.00		ug/L	1		8260C	Total/NA
Chloride	2.38		1.00		mg/L	1		9056A	Total/NA
Sulfate	2.01		1.00		mg/L	1		9056A	Total/NA
Calcium	131		1.00		mg/L	1		6010C	Total/NA
Iron	4.91		0.100		mg/L	1		6010C	Total/NA
Magnesium	30.7		1.00		mg/L	1		6010C	Total/NA
Manganese	0.335		0.0100		mg/L	1		6010C	Total/NA
Potassium	3.06		1.00		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Client Sample ID: Dup (Continued)

Lab Sample ID: 310-46049-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	45.6		1.00		mg/L	1		6010C	Total/NA
Total Organic Carbon	4.41		1.00		mg/L	1		9060A	Total/NA
Alkalinity as CaCO3	539		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	539		5.00		mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-46049-1

Date Collected: 12/18/14 00:00
Matrix: Water
Date Received: 12/18/14 18:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/27/14 13:41	1
Benzene	<0.500		0.500		ug/L			12/27/14 13:41	1
Bromobenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
Bromochloromethane	<5.00		5.00		ug/L			12/27/14 13:41	1
Bromodichloromethane	<1.00		1.00		ug/L			12/27/14 13:41	1
Bromoform	<5.00	*	5.00		ug/L			12/27/14 13:41	1
Bromomethane	<4.00	*	4.00		ug/L			12/27/14 13:41	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/27/14 13:41	1
n-Butylbenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
sec-Butylbenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
tert-Butylbenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
Carbon disulfide	<1.00		1.00		ug/L			12/27/14 13:41	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/27/14 13:41	1
Chlorobenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/27/14 13:41	1
Chloroethane	<4.00		4.00		ug/L			12/27/14 13:41	1
Chloroform	<1.00		1.00		ug/L			12/27/14 13:41	1
Chloromethane	<3.00		3.00		ug/L			12/27/14 13:41	1
2-Chlorotoluene	<1.00		1.00		ug/L			12/27/14 13:41	1
4-Chlorotoluene	<1.00		1.00		ug/L			12/27/14 13:41	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			12/27/14 13:41	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			12/27/14 13:41	1
Dibromomethane	<1.00		1.00		ug/L			12/27/14 13:41	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			12/27/14 13:41	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/27/14 13:41	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/27/14 13:41	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/27/14 13:41	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/27/14 13:41	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/27/14 13:41	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/27/14 13:41	1
1,3-Dichloropropane	<1.00		1.00		ug/L			12/27/14 13:41	1
2,2-Dichloropropane	<4.00		4.00		ug/L			12/27/14 13:41	1
1,1-Dichloropropene	<1.00		1.00		ug/L			12/27/14 13:41	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/27/14 13:41	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/27/14 13:41	1
Ethylbenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
Hexachlorobutadiene	<5.00		5.00		ug/L			12/27/14 13:41	1
Hexane	<1.00		1.00		ug/L			12/27/14 13:41	1
Isopropylbenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
p-Isopropyltoluene	<1.00		1.00		ug/L			12/27/14 13:41	1
Methylene Chloride	<5.00		5.00		ug/L			12/27/14 13:41	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			12/27/14 13:41	1
Naphthalene	<5.00		5.00		ug/L			12/27/14 13:41	1
N-Propylbenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
Styrene	<1.00		1.00		ug/L			12/27/14 13:41	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/27/14 13:41	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-46049-1

Date Collected: 12/18/14 00:00
Date Received: 12/18/14 18:30

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/27/14 13:41	1
Tetrachloroethene	<1.00		1.00		ug/L			12/27/14 13:41	1
Toluene	<1.00		1.00		ug/L			12/27/14 13:41	1
1,2,3-Trichlorobenzene	<5.00	*	5.00		ug/L			12/27/14 13:41	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			12/27/14 13:41	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/27/14 13:41	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/27/14 13:41	1
Trichloroethene	<1.00		1.00		ug/L			12/27/14 13:41	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/27/14 13:41	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/27/14 13:41	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			12/27/14 13:41	1
Vinyl chloride	<1.00		1.00		ug/L			12/27/14 13:41	1
Xylenes, Total	<3.00		3.00		ug/L			12/27/14 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*75 - 120*		*12/27/14 13:41*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*12/27/14 13:41*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*12/27/14 13:41*	*1*

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Client Sample ID: MW-65

Date Collected: 12/18/14 11:55
Date Received: 12/18/14 18:30

Lab Sample ID: 310-46049-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/27/14 14:03	1
Benzene	<0.500		0.500		ug/L			12/27/14 14:03	1
Bromobenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
Bromochloromethane	<5.00		5.00		ug/L			12/27/14 14:03	1
Bromodichloromethane	<1.00		1.00		ug/L			12/27/14 14:03	1
Bromoform	<5.00	*	5.00		ug/L			12/27/14 14:03	1
Bromomethane	<4.00	*	4.00		ug/L			12/27/14 14:03	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/27/14 14:03	1
n-Butylbenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
sec-Butylbenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
tert-Butylbenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
Carbon disulfide	<1.00		1.00		ug/L			12/27/14 14:03	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/27/14 14:03	1
Chlorobenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/27/14 14:03	1
Chloroethane	<4.00		4.00		ug/L			12/27/14 14:03	1
Chloroform	<1.00		1.00		ug/L			12/27/14 14:03	1
Chloromethane	<3.00		3.00		ug/L			12/27/14 14:03	1
2-Chlorotoluene	<1.00		1.00		ug/L			12/27/14 14:03	1
4-Chlorotoluene	<1.00		1.00		ug/L			12/27/14 14:03	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			12/27/14 14:03	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			12/27/14 14:03	1
Dibromomethane	<1.00		1.00		ug/L			12/27/14 14:03	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			12/27/14 14:03	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/27/14 14:03	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/27/14 14:03	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/27/14 14:03	1
cis-1,2-Dichloroethene	**22.9**		1.00		ug/L			12/27/14 14:03	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/27/14 14:03	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/27/14 14:03	1
1,3-Dichloropropane	<1.00		1.00		ug/L			12/27/14 14:03	1
2,2-Dichloropropane	<4.00		4.00		ug/L			12/27/14 14:03	1
1,1-Dichloropropene	<1.00		1.00		ug/L			12/27/14 14:03	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/27/14 14:03	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/27/14 14:03	1
Ethylbenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
Hexachlorobutadiene	<5.00		5.00		ug/L			12/27/14 14:03	1
Hexane	<1.00		1.00		ug/L			12/27/14 14:03	1
Isopropylbenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
p-Isopropyltoluene	<1.00		1.00		ug/L			12/27/14 14:03	1
Methylene Chloride	<5.00		5.00		ug/L			12/27/14 14:03	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			12/27/14 14:03	1
Naphthalene	<5.00		5.00		ug/L			12/27/14 14:03	1
N-Propylbenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
Styrene	<1.00		1.00		ug/L			12/27/14 14:03	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/27/14 14:03	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Client Sample ID: MW-65

Date Collected: 12/18/14 11:55
Date Received: 12/18/14 18:30

Lab Sample ID: 310-46049-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/27/14 14:03	1
Tetrachloroethene	<1.00		1.00		ug/L			12/27/14 14:03	1
Toluene	<1.00		1.00		ug/L			12/27/14 14:03	1
1,2,3-Trichlorobenzene	<5.00	*	5.00		ug/L			12/27/14 14:03	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			12/27/14 14:03	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/27/14 14:03	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/27/14 14:03	1
Trichloroethene	**1730**		20.0		ug/L			12/30/14 14:55	20
Trichlorofluoromethane	<4.00		4.00		ug/L			12/27/14 14:03	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/27/14 14:03	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			12/27/14 14:03	1
Vinyl chloride	**1.41**		1.00		ug/L			12/27/14 14:03	1
Xylenes, Total	<3.00		3.00		ug/L			12/27/14 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*75 - 120*		*12/27/14 14:03*	*1*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*		*12/30/14 14:55*	*20*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*12/27/14 14:03*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*12/30/14 14:55*	*20*
Toluene-d8 (Surr)	*101*		*80 - 120*		*12/27/14 14:03*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/30/14 14:55*	*20*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.26**		1.00		mg/L			12/23/14 09:50	1
Sulfate	**1.98**		1.00		mg/L			12/23/14 09:50	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**131**		1.00		mg/L		12/22/14 08:24	12/22/14 15:59	1
Iron	**4.91**		0.100		mg/L		12/22/14 08:24	12/22/14 15:59	1
Magnesium	**31.6**		1.00		mg/L		12/22/14 08:24	12/22/14 15:59	1
Manganese	**0.345**		0.0100		mg/L		12/22/14 08:24	12/22/14 15:59	1
Potassium	**3.21**		1.00		mg/L		12/22/14 08:24	12/22/14 15:59	1
Sodium	**47.2**		1.00		mg/L		12/22/14 08:24	12/22/14 15:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.46**		1.00		mg/L			12/22/14 17:50	1
Alkalinity as CaCO3	**530**		5.00		mg/L			12/23/14 16:40	1
Bicarbonate Alkalinity as CaCO3	**530**		5.00		mg/L			12/23/14 16:40	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			12/23/14 16:40	1
Hydroxide Alkalinity as CaCO3	<5.00		5.00		mg/L			12/23/14 16:40	1
Phenolphthalein Alkalinity as CaCO3	<5.00		5.00		mg/L			12/23/14 16:40	1
Nitrite as N	<0.100		0.100		mg/L			12/19/14 13:20	1
Nitrate as N	<0.100		0.100		mg/L			12/19/14 13:58	1

Client Sample ID: MW-47D

Date Collected: 12/18/14 13:50
Date Received: 12/18/14 18:30

Lab Sample ID: 310-46049-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1000		1000		ug/L			12/27/14 14:46	100
Benzene	<50.0		50.0		ug/L			12/27/14 14:46	100
Bromobenzene	<100		100		ug/L			12/27/14 14:46	100
Bromochloromethane	<500		500		ug/L			12/27/14 14:46	100
Bromodichloromethane	<100		100		ug/L			12/27/14 14:46	100
Bromoform	<500	*	500		ug/L			12/27/14 14:46	100
Bromomethane	<400	*	400		ug/L			12/27/14 14:46	100
2-Butanone (MEK)	<1000		1000		ug/L			12/27/14 14:46	100
n-Butylbenzene	<100		100		ug/L			12/27/14 14:46	100
sec-Butylbenzene	<100		100		ug/L			12/27/14 14:46	100
tert-Butylbenzene	<100		100		ug/L			12/27/14 14:46	100
Carbon disulfide	<100		100		ug/L			12/27/14 14:46	100
Carbon tetrachloride	<200		200		ug/L			12/27/14 14:46	100
Chlorobenzene	<100		100		ug/L			12/27/14 14:46	100
Chlorodibromomethane	<500		500		ug/L			12/27/14 14:46	100
Chloroethane	<400		400		ug/L			12/27/14 14:46	100
Chloroform	<100		100		ug/L			12/27/14 14:46	100
Chloromethane	<300		300		ug/L			12/27/14 14:46	100
2-Chlorotoluene	<100		100		ug/L			12/27/14 14:46	100
4-Chlorotoluene	<100		100		ug/L			12/27/14 14:46	100
1,2-Dibromo-3-Chloropropane	<1000		1000		ug/L			12/27/14 14:46	100
1,2-Dibromoethane (EDB)	<1000		1000		ug/L			12/27/14 14:46	100
Dibromomethane	<100		100		ug/L			12/27/14 14:46	100
1,2-Dichlorobenzene	<100		100		ug/L			12/27/14 14:46	100
1,3-Dichlorobenzene	<100		100		ug/L			12/27/14 14:46	100
1,4-Dichlorobenzene	<100		100		ug/L			12/27/14 14:46	100
Dichlorodifluoromethane	<300		300		ug/L			12/27/14 14:46	100
1,1-Dichloroethane	<100		100		ug/L			12/27/14 14:46	100
1,2-Dichloroethane	<100		100		ug/L			12/27/14 14:46	100
1,1-Dichloroethene	<200		200		ug/L			12/27/14 14:46	100
cis-1,2-Dichloroethene	**35700**		100		ug/L			12/27/14 14:46	100
trans-1,2-Dichloroethene	**124**		100		ug/L			12/27/14 14:46	100
1,2-Dichloropropane	<100		100		ug/L			12/27/14 14:46	100
1,3-Dichloropropane	<100		100		ug/L			12/27/14 14:46	100
2,2-Dichloropropane	<400		400		ug/L			12/27/14 14:46	100
1,1-Dichloropropene	<100		100		ug/L			12/27/14 14:46	100
cis-1,3-Dichloropropene	<500		500		ug/L			12/27/14 14:46	100
trans-1,3-Dichloropropene	<500		500		ug/L			12/27/14 14:46	100
Ethylbenzene	<100		100		ug/L			12/27/14 14:46	100
Hexachlorobutadiene	<500		500		ug/L			12/27/14 14:46	100
Hexane	<100		100		ug/L			12/27/14 14:46	100
Isopropylbenzene	<100		100		ug/L			12/27/14 14:46	100
p-Isopropyltoluene	<100		100		ug/L			12/27/14 14:46	100
Methylene Chloride	<500		500		ug/L			12/27/14 14:46	100
Methyl tert-butyl ether	<100		100		ug/L			12/27/14 14:46	100
Naphthalene	<500		500		ug/L			12/27/14 14:46	100
N-Propylbenzene	<100		100		ug/L			12/27/14 14:46	100
Styrene	<100		100		ug/L			12/27/14 14:46	100
1,1,1,2-Tetrachloroethane	<100		100		ug/L			12/27/14 14:46	100

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Client Sample ID: MW-47D

Date Collected: 12/18/14 13:50
Date Received: 12/18/14 18:30

Lab Sample ID: 310-46049-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<100		100		ug/L			12/27/14 14:46	100
Tetrachloroethene	<100		100		ug/L			12/27/14 14:46	100
Toluene	<100		100		ug/L			12/27/14 14:46	100
1,2,3-Trichlorobenzene	<500	*	500		ug/L			12/27/14 14:46	100
1,2,4-Trichlorobenzene	<500		500		ug/L			12/27/14 14:46	100
1,1,1-Trichloroethane	<100		100		ug/L			12/27/14 14:46	100
1,1,2-Trichloroethane	<100		100		ug/L			12/27/14 14:46	100
Trichloroethene	**25500**		100		ug/L			12/27/14 14:46	100
Trichlorofluoromethane	<400		400		ug/L			12/27/14 14:46	100
1,2,3-Trichloropropane	<100		100		ug/L			12/27/14 14:46	100
1,2,4-Trimethylbenzene	<100		100		ug/L			12/27/14 14:46	100
1,3,5-Trimethylbenzene	<100		100		ug/L			12/27/14 14:46	100
Vinyl chloride	**503**		100		ug/L			12/27/14 14:46	100
Xylenes, Total	<300		300		ug/L			12/27/14 14:46	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*75 - 120*		*12/27/14 14:46*	*100*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*12/27/14 14:46*	*100*
Toluene-d8 (Surr)	*101*		*80 - 120*		*12/27/14 14:46*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**203**		5.00		mg/L			12/30/14 14:58	5
Sulfate	**12.5**		1.00		mg/L			12/23/14 09:50	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**163**		1.00		mg/L		12/22/14 08:24	12/22/14 16:07	1
Iron	**1.43**		0.100		mg/L		12/22/14 08:24	12/22/14 16:07	1
Magnesium	**51.2**		1.00		mg/L		12/22/14 08:24	12/22/14 16:07	1
Manganese	**0.723**		0.0100		mg/L		12/22/14 08:24	12/22/14 16:07	1
Potassium	**5.01**		1.00		mg/L		12/22/14 08:24	12/22/14 16:07	1
Sodium	**27.8**		1.00		mg/L		12/22/14 08:24	12/22/14 16:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.03**		1.00		mg/L			12/22/14 18:07	1
Alkalinity as CaCO3	**416**		5.00		mg/L			12/23/14 16:40	1
Bicarbonate Alkalinity as CaCO3	**416**		5.00		mg/L			12/23/14 16:40	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			12/23/14 16:40	1
Hydroxide Alkalinity as CaCO3	<5.00		5.00		mg/L			12/23/14 16:40	1
Phenolphthalein Alkalinity as CaCO3	<5.00		5.00		mg/L			12/23/14 16:40	1
Nitrite as N	<0.100		0.100		mg/L			12/19/14 13:20	1
Nitrate as N	<0.100		0.100		mg/L			12/19/14 14:00	1

Client Sample ID: Dup

Lab Sample ID: 310-46049-4

Date Collected: 12/18/14 12:15

Matrix: Ground Water

Date Received: 12/18/14 18:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/27/14 15:07	1
Benzene	<0.500		0.500		ug/L			12/27/14 15:07	1
Bromobenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
Bromochloromethane	<5.00		5.00		ug/L			12/27/14 15:07	1
Bromodichloromethane	<1.00		1.00		ug/L			12/27/14 15:07	1
Bromoform	<5.00	*	5.00		ug/L			12/27/14 15:07	1
Bromomethane	<4.00	*	4.00		ug/L			12/27/14 15:07	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/27/14 15:07	1
n-Butylbenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
sec-Butylbenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
tert-Butylbenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
Carbon disulfide	<1.00		1.00		ug/L			12/27/14 15:07	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/27/14 15:07	1
Chlorobenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/27/14 15:07	1
Chloroethane	<4.00		4.00		ug/L			12/27/14 15:07	1
Chloroform	<1.00		1.00		ug/L			12/27/14 15:07	1
Chloromethane	<3.00		3.00		ug/L			12/27/14 15:07	1
2-Chlorotoluene	<1.00		1.00		ug/L			12/27/14 15:07	1
4-Chlorotoluene	<1.00		1.00		ug/L			12/27/14 15:07	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			12/27/14 15:07	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			12/27/14 15:07	1
Dibromomethane	<1.00		1.00		ug/L			12/27/14 15:07	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			12/27/14 15:07	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/27/14 15:07	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/27/14 15:07	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/27/14 15:07	1
cis-1,2-Dichloroethene	**20.8**		1.00		ug/L			12/27/14 15:07	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/27/14 15:07	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/27/14 15:07	1
1,3-Dichloropropane	<1.00		1.00		ug/L			12/27/14 15:07	1
2,2-Dichloropropane	<4.00		4.00		ug/L			12/27/14 15:07	1
1,1-Dichloropropene	<1.00		1.00		ug/L			12/27/14 15:07	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/27/14 15:07	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/27/14 15:07	1
Ethylbenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
Hexachlorobutadiene	<5.00		5.00		ug/L			12/27/14 15:07	1
Hexane	<1.00		1.00		ug/L			12/27/14 15:07	1
Isopropylbenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
p-Isopropyltoluene	<1.00		1.00		ug/L			12/27/14 15:07	1
Methylene Chloride	<5.00		5.00		ug/L			12/27/14 15:07	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			12/27/14 15:07	1
Naphthalene	<5.00		5.00		ug/L			12/27/14 15:07	1
N-Propylbenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
Styrene	<1.00		1.00		ug/L			12/27/14 15:07	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/27/14 15:07	1

Client Sample ID: Dup

Lab Sample ID: 310-46049-4

Date Collected: 12/18/14 12:15

Matrix: Ground Water

Date Received: 12/18/14 18:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/27/14 15:07	1
Tetrachloroethene	<1.00		1.00		ug/L			12/27/14 15:07	1
Toluene	<1.00		1.00		ug/L			12/27/14 15:07	1
1,2,3-Trichlorobenzene	<5.00	*	5.00		ug/L			12/27/14 15:07	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			12/27/14 15:07	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/27/14 15:07	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/27/14 15:07	1
Trichloroethene	**1530**		20.0		ug/L			12/30/14 14:32	20
Trichlorofluoromethane	<4.00		4.00		ug/L			12/27/14 15:07	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/27/14 15:07	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			12/27/14 15:07	1
Vinyl chloride	**1.32**		1.00		ug/L			12/27/14 15:07	1
Xylenes, Total	<3.00		3.00		ug/L			12/27/14 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*75 - 120*		*12/27/14 15:07*	*1*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*		*12/30/14 14:32*	*20*
Dibromofluoromethane (Surr)	*102*		*75 - 120*		*12/27/14 15:07*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*12/30/14 14:32*	*20*
Toluene-d8 (Surr)	*101*		*80 - 120*		*12/27/14 15:07*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*12/30/14 14:32*	*20*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.38**		1.00		mg/L			12/23/14 09:50	1
Sulfate	**2.01**		1.00		mg/L			12/23/14 09:50	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**131**		1.00		mg/L		12/22/14 08:24	12/22/14 16:09	1
Iron	**4.91**		0.100		mg/L		12/22/14 08:24	12/22/14 16:09	1
Magnesium	**30.7**		1.00		mg/L		12/22/14 08:24	12/22/14 16:09	1
Manganese	**0.335**		0.0100		mg/L		12/22/14 08:24	12/22/14 16:09	1
Potassium	**3.06**		1.00		mg/L		12/22/14 08:24	12/22/14 16:09	1
Sodium	**45.6**		1.00		mg/L		12/22/14 08:24	12/22/14 16:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**4.41**		1.00		mg/L			12/22/14 19:01	1
Alkalinity as CaCO3	**539**		5.00		mg/L			12/23/14 16:40	1
Bicarbonate Alkalinity as CaCO3	**539**		5.00		mg/L			12/23/14 16:40	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			12/23/14 16:40	1
Hydroxide Alkalinity as CaCO3	<5.00		5.00		mg/L			12/23/14 16:40	1
Phenolphthalein Alkalinity as CaCO3	<5.00		5.00		mg/L			12/23/14 16:40	1
Nitrite as N	<0.100		0.100		mg/L			12/19/14 13:20	1
Nitrate as N	<0.100		0.100		mg/L			12/19/14 14:02	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-46049-2	MW-65	111	100	101
310-46049-2	MW-65	106	101	99
310-46049-3	MW-47D	113	100	101
310-46049-4	Dup	110	102	101
310-46049-4	Dup	106	100	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-46049-1	Trip Blank	111	101	101
LCS 310-72459/4	Lab Control Sample	103	102	101
LCS 310-72670/7	Lab Control Sample	106	101	98
LCSD 310-72670/8	Lab Control Sample Dup	105	101	100
MB 310-72459/7	Method Blank	103	100	101
MB 310-72670/11	Method Blank	105	101	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-72459/7
Matrix: Water
Analysis Batch: 72459

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/27/14 08:40	1
Benzene	<0.500		0.500		ug/L			12/27/14 08:40	1
Bromobenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
Bromochloromethane	<5.00		5.00		ug/L			12/27/14 08:40	1
Bromodichloromethane	<1.00		1.00		ug/L			12/27/14 08:40	1
Bromoform	<5.00		5.00		ug/L			12/27/14 08:40	1
Bromomethane	<4.00		4.00		ug/L			12/27/14 08:40	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/27/14 08:40	1
n-Butylbenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
sec-Butylbenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
tert-Butylbenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
Carbon disulfide	<1.00		1.00		ug/L			12/27/14 08:40	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/27/14 08:40	1
Chlorobenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/27/14 08:40	1
Chloroethane	<4.00		4.00		ug/L			12/27/14 08:40	1
Chloroform	<1.00		1.00		ug/L			12/27/14 08:40	1
Chloromethane	<3.00		3.00		ug/L			12/27/14 08:40	1
2-Chlorotoluene	<1.00		1.00		ug/L			12/27/14 08:40	1
4-Chlorotoluene	<1.00		1.00		ug/L			12/27/14 08:40	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			12/27/14 08:40	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			12/27/14 08:40	1
Dibromomethane	<1.00		1.00		ug/L			12/27/14 08:40	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			12/27/14 08:40	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/27/14 08:40	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/27/14 08:40	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/27/14 08:40	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/27/14 08:40	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/27/14 08:40	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/27/14 08:40	1
1,3-Dichloropropane	<1.00		1.00		ug/L			12/27/14 08:40	1
2,2-Dichloropropane	<4.00		4.00		ug/L			12/27/14 08:40	1
1,1-Dichloropropene	<1.00		1.00		ug/L			12/27/14 08:40	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/27/14 08:40	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/27/14 08:40	1
Ethylbenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
Hexachlorobutadiene	<5.00		5.00		ug/L			12/27/14 08:40	1
Hexane	<1.00		1.00		ug/L			12/27/14 08:40	1
Isopropylbenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
p-Isopropyltoluene	<1.00		1.00		ug/L			12/27/14 08:40	1
Methylene Chloride	<5.00		5.00		ug/L			12/27/14 08:40	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			12/27/14 08:40	1
Naphthalene	<5.00		5.00		ug/L			12/27/14 08:40	1
N-Propylbenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
Styrene	<1.00		1.00		ug/L			12/27/14 08:40	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-72459/7
Matrix: Water
Analysis Batch: 72459

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/27/14 08:40	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/27/14 08:40	1
Tetrachloroethene	<1.00		1.00		ug/L			12/27/14 08:40	1
Toluene	<1.00		1.00		ug/L			12/27/14 08:40	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			12/27/14 08:40	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			12/27/14 08:40	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/27/14 08:40	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/27/14 08:40	1
Trichloroethene	<1.00		1.00		ug/L			12/27/14 08:40	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/27/14 08:40	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/27/14 08:40	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			12/27/14 08:40	1
Vinyl chloride	<1.00		1.00		ug/L			12/27/14 08:40	1
Xylenes, Total	<3.00		3.00		ug/L			12/27/14 08:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*12/27/14 08:40*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*12/27/14 08:40*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*12/27/14 08:40*	*1*

Lab Sample ID: LCS 310-72459/4
Matrix: Water
Analysis Batch: 72459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	44.75		ug/L		112	60 - 150
Benzene	20.0	19.27		ug/L		96	70 - 130
Bromobenzene	20.0	22.56		ug/L		113	75 - 130
Bromochloromethane	20.0	21.92		ug/L		110	65 - 145
Bromodichloromethane	20.0	19.69		ug/L		98	60 - 130
Bromoform	20.0	26.59	*	ug/L		133	30 - 125
Bromomethane	20.0	26.41	*	ug/L		132	35 - 130
2-Butanone (MEK)	40.0	40.76		ug/L		102	55 - 140
n-Butylbenzene	20.0	21.03		ug/L		105	55 - 135
sec-Butylbenzene	20.0	21.26		ug/L		106	65 - 135
tert-Butylbenzene	20.0	21.77		ug/L		109	60 - 135
Carbon disulfide	20.0	19.85		ug/L		99	40 - 130
Carbon tetrachloride	20.0	21.31		ug/L		107	55 - 130
Chlorobenzene	20.0	21.08		ug/L		105	75 - 125
Chlorodibromomethane	20.0	21.46		ug/L		107	45 - 125
Chloroethane	20.0	22.73		ug/L		114	55 - 135
Chloroform	20.0	19.30		ug/L		96	70 - 125
Chloromethane	20.0	18.24		ug/L		91	30 - 125
2-Chlorotoluene	20.0	20.66		ug/L		103	75 - 135
4-Chlorotoluene	20.0	21.48		ug/L		107	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	23.02		ug/L		115	35 - 130
1,2-Dibromoethane (EDB)	20.0	22.52		ug/L		113	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-72459/4
Matrix: Water
Analysis Batch: 72459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	20.85		ug/L		104	75 - 130
1,2-Dichlorobenzene	20.0	21.75		ug/L		109	65 - 135
1,3-Dichlorobenzene	20.0	21.61		ug/L		108	70 - 130
1,4-Dichlorobenzene	20.0	21.82		ug/L		109	60 - 140
Dichlorodifluoromethane	20.0	24.14		ug/L		121	35 - 130
1,1-Dichloroethane	20.0	19.09		ug/L		95	60 - 130
1,2-Dichloroethane	20.0	19.89		ug/L		99	65 - 140
1,1-Dichloroethene	20.0	21.32		ug/L		107	60 - 135
cis-1,2-Dichloroethene	20.0	20.56		ug/L		103	70 - 135
trans-1,2-Dichloroethene	20.0	20.52		ug/L		103	60 - 145
1,2-Dichloropropane	20.0	18.91		ug/L		95	65 - 130
1,3-Dichloropropane	20.0	20.28		ug/L		101	75 - 125
2,2-Dichloropropane	20.0	22.09		ug/L		110	25 - 120
1,1-Dichloropropene	20.0	19.62		ug/L		98	60 - 140
cis-1,3-Dichloropropene	20.0	21.16		ug/L		106	30 - 120
trans-1,3-Dichloropropene	20.0	19.71		ug/L		99	35 - 120
Ethylbenzene	20.0	20.59		ug/L		103	70 - 130
Hexachlorobutadiene	20.0	25.78		ug/L		129	60 - 135
Hexane	20.0	19.99		ug/L		100	40 - 135
Isopropylbenzene	20.0	21.40		ug/L		107	70 - 125
p-Isopropyltoluene	20.0	21.43		ug/L		107	60 - 140
Methylene Chloride	20.0	17.44		ug/L		87	55 - 145
Methyl tert-butyl ether	20.0	21.28		ug/L		106	50 - 135
Naphthalene	20.0	23.27		ug/L		116	40 - 135
N-Propylbenzene	20.0	21.38		ug/L		107	70 - 135
Styrene	20.0	21.22		ug/L		106	70 - 130
1,1,1,2-Tetrachloroethane	20.0	21.75		ug/L		109	65 - 120
1,1,2,2-Tetrachloroethane	20.0	21.24		ug/L		106	65 - 130
Tetrachloroethene	20.0	21.79		ug/L		109	70 - 135
Toluene	20.0	20.97		ug/L		105	70 - 135
1,2,3-Trichlorobenzene	20.0	27.48	*	ug/L		137	55 - 130
1,2,4-Trichlorobenzene	20.0	24.61		ug/L		123	40 - 135
1,1,1-Trichloroethane	20.0	20.63		ug/L		103	60 - 125
1,1,2-Trichloroethane	20.0	21.20		ug/L		106	75 - 125
Trichloroethene	20.0	20.25		ug/L		101	70 - 130
Trichlorofluoromethane	20.0	24.05		ug/L		120	55 - 145
1,2,3-Trichloropropane	20.0	21.66		ug/L		108	60 - 150
1,2,4-Trimethylbenzene	20.0	21.15		ug/L		106	70 - 140
1,3,5-Trimethylbenzene	20.0	21.27		ug/L		106	70 - 140
Vinyl chloride	20.0	18.15		ug/L		91	45 - 135
Xylenes, Total	40.0	42.32		ug/L		106	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-72670/11 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72670

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00		ug/L			12/30/14 12:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*75 - 120*		*12/30/14 12:27*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*12/30/14 12:27*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/30/14 12:27*	*1*

Lab Sample ID: LCS 310-72670/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	20.0	23.87		ug/L		119	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: LCSD 310-72670/8 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72670

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	20.0	23.28		ug/L		116	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*75 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-72268/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72268

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			12/23/14 09:50	1
Sulfate	<1.00		1.00		mg/L			12/23/14 09:50	1

Lab Sample ID: LCS 310-72268/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72268

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.50	7.807		mg/L		104	90 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 310-72268/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72268

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.879		mg/L		105	90 - 110

Lab Sample ID: MB 310-72750/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72750

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			12/30/14 14:58	1
Sulfate	<1.00		1.00		mg/L			12/30/14 14:58	1

Lab Sample ID: LCS 310-72750/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72750

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.50	8.010		mg/L		107	90 - 110
Sulfate	7.50	8.004		mg/L		107	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-72105/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72229 — **Prep Batch: 72105**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<1.00		1.00		mg/L		12/22/14 08:24	12/22/14 15:55	1
Iron	<0.100		0.100		mg/L		12/22/14 08:24	12/22/14 15:55	1
Magnesium	<1.00		1.00		mg/L		12/22/14 08:24	12/22/14 15:55	1
Manganese	<0.0100		0.0100		mg/L		12/22/14 08:24	12/22/14 15:55	1
Potassium	<1.00		1.00		mg/L		12/22/14 08:24	12/22/14 15:55	1
Sodium	<1.00		1.00		mg/L		12/22/14 08:24	12/22/14 15:55	1

Lab Sample ID: LCS 310-72105/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72229 — **Prep Batch: 72105**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	20.0	20.68		mg/L		103	80 - 120
Iron	2.00	1.997		mg/L		100	80 - 120
Magnesium	20.0	20.75		mg/L		104	80 - 120
Manganese	1.00	1.010		mg/L		101	80 - 120
Potassium	20.0	20.54		mg/L		103	80 - 120
Sodium	20.0	20.37		mg/L		102	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 310-46049-2 MS — **Client Sample ID: MW-65**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 72229 — **Prep Batch: 72105**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	131		20.0	155.9	4	mg/L		124	75 - 125
Iron	4.91		2.00	7.041		mg/L		106	75 - 125
Magnesium	31.6		20.0	53.13		mg/L		107	75 - 125
Manganese	0.345		1.00	1.407		mg/L		106	75 - 125
Potassium	3.21		20.0	25.47		mg/L		111	75 - 125
Sodium	47.2		20.0	68.96		mg/L		109	75 - 125

Lab Sample ID: 310-46049-2 MSD — **Client Sample ID: MW-65**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 72229 — **Prep Batch: 72105**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	131		20.0	140.4	4	mg/L		46	75 - 125	11	20
Iron	4.91		2.00	6.462		mg/L		77	75 - 125	9	20
Magnesium	31.6		20.0	48.29		mg/L		83	75 - 125	10	20
Manganese	0.345		1.00	1.278		mg/L		93	75 - 125	10	20
Potassium	3.21		20.0	23.27		mg/L		100	75 - 125	9	20
Sodium	47.2		20.0	63.03		mg/L		79	75 - 125	9	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-72235/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72235

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			12/22/14 12:26	1

Lab Sample ID: LCS 310-72235/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72235

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.936		mg/L		99	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-72342/1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	1060	1017		mg/L		96	90 - 110

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 310-46049-2 MS — **Client Sample ID: MW-65**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 72342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3	530		106	629.1	4	mg/L		94	85 - 125		

Lab Sample ID: 310-46049-2 MSD — **Client Sample ID: MW-65**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 72342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3	530		106	629.1	4	mg/L		94	85 - 125	0	10

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-72041/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72041

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			12/19/14 13:20	1

Lab Sample ID: LCS 310-72041/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72041

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N	0.500	0.4987		mg/L		100	90 - 110		

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-72042/38 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72042

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			12/19/14 15:15	1

Lab Sample ID: MB 310-72042/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72042

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			12/19/14 13:20	1

Lab Sample ID: LCS 310-72042/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	14.5	15.34		mg/L		106	90 - 110		

Method: SM 4500 NO3 E - Nitrogen, Nitrate (Continued)

Lab Sample ID: LCS 310-72042/41
Matrix: Water
Analysis Batch: 72042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			14.5	14.23		mg/L		98	90 - 110		

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 72459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-46049-1	Trip Blank	Total/NA	Water	8260C	
310-46049-2	MW-65	Total/NA	Ground Water	8260C	
310-46049-3	MW-47D	Total/NA	Ground Water	8260C	
310-46049-4	Dup	Total/NA	Ground Water	8260C	
LCS 310-72459/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-72459/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 72670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-46049-2	MW-65	Total/NA	Ground Water	8260C	
310-46049-4	Dup	Total/NA	Ground Water	8260C	
LCS 310-72670/7	Lab Control Sample	Total/NA	Water	8260C	
LCSD 310-72670/8	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 310-72670/11	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 72268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-46049-2	MW-65	Total/NA	Ground Water	9056A	
310-46049-3	MW-47D	Total/NA	Ground Water	9056A	
310-46049-4	Dup	Total/NA	Ground Water	9056A	
LCS 310-72268/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-72268/3	Method Blank	Total/NA	Water	9056A	

Analysis Batch: 72750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-46049-3	MW-47D	Total/NA	Ground Water	9056A	
LCS 310-72750/6	Lab Control Sample	Total/NA	Water	9056A	
MB 310-72750/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 72105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-46049-2	MW-65	Total/NA	Ground Water	3010A	
310-46049-2 MS	MW-65	Total/NA	Ground Water	3010A	
310-46049-2 MSD	MW-65	Total/NA	Ground Water	3010A	
310-46049-3	MW-47D	Total/NA	Ground Water	3010A	
310-46049-4	Dup	Total/NA	Ground Water	3010A	
LCS 310-72105/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-72105/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 72229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-46049-2	MW-65	Total/NA	Ground Water	6010C	72105
310-46049-2 MS	MW-65	Total/NA	Ground Water	6010C	72105
310-46049-2 MSD	MW-65	Total/NA	Ground Water	6010C	72105
310-46049-3	MW-47D	Total/NA	Ground Water	6010C	72105
310-46049-4	Dup	Total/NA	Ground Water	6010C	72105

Metals (Continued)

Analysis Batch: 72229 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-72105/2-A	Lab Control Sample	Total/NA	Water	6010C	72105
MB 310-72105/1-A	Method Blank	Total/NA	Water	6010C	72105

General Chemistry

Analysis Batch: 72041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-46049-2	MW-65	Total/NA	Ground Water	SM 4500 NO2 B	
310-46049-3	MW-47D	Total/NA	Ground Water	SM 4500 NO2 B	
310-46049-4	Dup	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-72041/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-72041/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 72042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-46049-2	MW-65	Total/NA	Ground Water	SM 4500 NO3 E	
310-46049-3	MW-47D	Total/NA	Ground Water	SM 4500 NO3 E	
310-46049-4	Dup	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-72042/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
LCS 310-72042/41	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-72042/38	Method Blank	Total/NA	Water	SM 4500 NO3 E	
MB 310-72042/5	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 72235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-46049-2	MW-65	Total/NA	Ground Water	9060A	
310-46049-3	MW-47D	Total/NA	Ground Water	9060A	
310-46049-4	Dup	Total/NA	Ground Water	9060A	
LCS 310-72235/7	Lab Control Sample	Total/NA	Water	9060A	
MB 310-72235/5	Method Blank	Total/NA	Water	9060A	

Analysis Batch: 72342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-46049-2	MW-65	Total/NA	Ground Water	SM 2320B	
310-46049-2 MS	MW-65	Total/NA	Ground Water	SM 2320B	
310-46049-2 MSD	MW-65	Total/NA	Ground Water	SM 2320B	
310-46049-3	MW-47D	Total/NA	Ground Water	SM 2320B	
310-46049-4	Dup	Total/NA	Ground Water	SM 2320B	
LCS 310-72342/1	Lab Control Sample	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Client Sample ID: Trip Blank — Lab Sample ID: 310-46049-1

Date Collected: 12/18/14 00:00 — **Matrix: Water**
Date Received: 12/18/14 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	72459	12/27/14 13:41	SJN	TAL CF

Client Sample ID: MW-65 — Lab Sample ID: 310-46049-2

Date Collected: 12/18/14 11:55 — **Matrix: Ground Water**
Date Received: 12/18/14 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	72459	12/27/14 14:03	SJN	TAL CF
Total/NA	Analysis	8260C		20	72670	12/30/14 14:55	SJN	TAL CF
Total/NA	Analysis	9056A		1	72268	12/23/14 09:50	CDD	TAL CF
Total/NA	Prep	3010A			72105	12/22/14 08:24	CJT	TAL CF
Total/NA	Analysis	6010C		1	72229	12/22/14 15:59	MRH	TAL CF
Total/NA	Analysis	9060A		1	72235	12/22/14 17:50	MDK	TAL CF
Total/NA	Analysis	SM 2320B		1	72342	12/23/14 16:40	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	72041	12/19/14 13:20	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	72042	12/19/14 13:58	MDK	TAL CF

Client Sample ID: MW-47D — Lab Sample ID: 310-46049-3

Date Collected: 12/18/14 13:50 — **Matrix: Ground Water**
Date Received: 12/18/14 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	72459	12/27/14 14:46	SJN	TAL CF
Total/NA	Analysis	9056A		1	72268	12/23/14 09:50	CDD	TAL CF
Total/NA	Analysis	9056A		5	72750	12/30/14 14:58	LBB	TAL CF
Total/NA	Prep	3010A			72105	12/22/14 08:24	CJT	TAL CF
Total/NA	Analysis	6010C		1	72229	12/22/14 16:07	MRH	TAL CF
Total/NA	Analysis	9060A		1	72235	12/22/14 18:07	MDK	TAL CF
Total/NA	Analysis	SM 2320B		1	72342	12/23/14 16:40	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	72041	12/19/14 13:20	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	72042	12/19/14 14:00	MDK	TAL CF

Client Sample ID: Dup — Lab Sample ID: 310-46049-4

Date Collected: 12/18/14 12:15 — **Matrix: Ground Water**
Date Received: 12/18/14 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	72459	12/27/14 15:07	SJN	TAL CF
Total/NA	Analysis	8260C		20	72670	12/30/14 14:32	SJN	TAL CF
Total/NA	Analysis	9056A		1	72268	12/23/14 09:50	CDD	TAL CF
Total/NA	Prep	3010A			72105	12/22/14 08:24	CJT	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Client Sample ID: Dup

Date Collected: 12/18/14 12:15
Date Received: 12/18/14 18:30

Lab Sample ID: 310-46049-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	72229	12/22/14 16:09	MRH	TAL CF
Total/NA	Analysis	9060A		1	72235	12/22/14 19:01	MDK	TAL CF
Total/NA	Analysis	SM 2320B		1	72342	12/23/14 16:40	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	72041	12/19/14 13:20	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	72042	12/19/14 14:02	MDK	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-15
Illinois	NELAP	5	200024	11-29-15
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-15
North Dakota	State Program	8	R-186	09-29-15
Oregon	NELAP	10	IA100001	09-29-15
Wisconsin	State Program	5	999917270	08-31-15

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-46049-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 2320B	Alkalinity	SM	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Temperature Log Form
Cedar Falls Facility

310-46049 Chain of Custody
310303

Client: Golder Associates Project: _____

City: Manchester State: NH

Date: 12/18/14 Receiver's Initials: PC Time (Delivered): 1830

Temperature Record:

Cooler ID# (If Applicable): 11

Uncorrected Temp: 2.6 °C

Corrected Temp: 2.5 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [ ] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [x] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [ ] Yes [x] No

Cooler Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Sample Custody Seals Present? [ ] Yes [ ] No

Sample Custody Seals Intact? [ ] Yes [ ] No [ ] N/A

Document No.: CF-LG-WI-002
Revision: 20
Date: 7/31/2013

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Alan Phillips (AP)
(Signature) Alan Phillips

Your PO #:
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: jim_peace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:Stormwater	Analyze For: 8260 Volatiles	Nitrate, Nitrite	Sulfate, Chloride	Alkalinities	Ca, Na, K, Mg, Mn, Fe	TOC							E-mail results	Send QC with report
Trip Blank			3	X					3												X													
MW-65	12/18/14	1155	6	X				1	3		1		1		X						X	X	X	X	X	X								
MW-47D	12/18/14	1350	6	X				1	3		1		1		X						X	X	X	X	X	X								
Dup	12/18/14	1215	6	X				1	3		1		1		X						X	X	X	X	X	X								

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Alan Phillips	12/18/14	16:25	[illegible]	12/18/14	16:25			
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by: [illegible]	Date 12/18/14	Time 1550	Temperature Upon Receipt:			Laboratory Comments:		

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-65	310-46049-B-2	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-65	310-46049-C-2	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-47D	310-46049-B-3	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-47D	310-46049-C-3	Plastic 250ml - with Nitric Acid	<2	_____	_____
Dup	310-46049-B-4	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
Dup	310-46049-C-4	Plastic 250ml - with Nitric Acid	<2	_____	_____

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-46049-1
SDG Number: 103-87305

Login Number: 46049
List Number: 1
Creator: Facciani, Melene K

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-51636-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
4/7/2015 10:41:47 AM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-51636-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-51636-1

Comments
No additional comments.

Receipt
The samples were received on 3/24/2015 7:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 81155 recovered above the upper control limit for Carbon tetrachloride (21.8 %D), Vinyl chloride (21 %D), and Trichlorofluoromethane (39 %D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 310-81155/3).

Method(s) 8260C: The laboratory control sample (LCS) for batch 81155 recovered outside control limits for the following analytes: Dichlorodifluoromethane and Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The method blank for batch 81164 contained cis 12-Dichloroethene above the reporting limit (RL). Associated sample was not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 81164 recovered above the upper control limit for Trichlorofluoromethane(22.3%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-51636-1	Trip Blank	Water	03/24/15 00:00	03/24/15 19:00
310-51636-2	MW-65	Ground Water	03/24/15 10:40	03/24/15 19:00
310-51636-3	Duplicate	Ground Water	03/24/15 11:10	03/24/15 19:00
310-51636-4	MW-47D	Ground Water	03/24/15 12:25	03/24/15 19:00

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: Trip Blank — Lab Sample ID: 310-51636-1

No Detections.

Client Sample ID: MW-65 — Lab Sample ID: 310-51636-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	29.7		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	2370		20.0		ug/L	20		8260C	Total/NA
Vinyl chloride	1.89		1.00		ug/L	1		8260C	Total/NA
Chloride	2.32		1.00		mg/L	1		9056A	Total/NA
Sulfate	1.65		1.00		mg/L	1		9056A	Total/NA
Calcium	133		1.00		mg/L	1		6010C	Total/NA
Iron	4.53		0.100		mg/L	1		6010C	Total/NA
Magnesium	33.2		1.00		mg/L	1		6010C	Total/NA
Manganese	0.345		0.0100		mg/L	1		6010C	Total/NA
Potassium	2.21		1.00		mg/L	1		6010C	Total/NA
Sodium	48.9		1.00		mg/L	1		6010C	Total/NA
Total Organic Carbon	3.81		1.00		mg/L	1		9060A	Total/NA
Alkalinity as CaCO3	585		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	585		5.00		mg/L	1		SM 2320B	Total/NA

Client Sample ID: Duplicate — Lab Sample ID: 310-51636-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	28.1		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	2360		20.0		ug/L	20		8260C	Total/NA
Vinyl chloride	1.90		1.00		ug/L	1		8260C	Total/NA
Chloride	2.26		1.00		mg/L	1		9056A	Total/NA
Sulfate	1.69		1.00		mg/L	1		9056A	Total/NA
Calcium	129		1.00		mg/L	1		6010C	Total/NA
Iron	4.15		0.100		mg/L	1		6010C	Total/NA
Magnesium	31.6		1.00		mg/L	1		6010C	Total/NA
Manganese	0.328		0.0100		mg/L	1		6010C	Total/NA
Potassium	2.09		1.00		mg/L	1		6010C	Total/NA
Sodium	46.5		1.00		mg/L	1		6010C	Total/NA
Total Organic Carbon	3.83		1.00		mg/L	1		9060A	Total/NA
Alkalinity as CaCO3	579		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	579		5.00		mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-47D — Lab Sample ID: 310-51636-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	110		2.00		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	37000	B	100		ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	321		1.00		ug/L	1		8260C	Total/NA
Tetrachloroethene	4.84		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	28800		100		ug/L	100		8260C	Total/NA
Vinyl chloride	491		1.00		ug/L	1		8260C	Total/NA
Chloride	155		5.00		mg/L	5		9056A	Total/NA
Sulfate	9.86		5.00		mg/L	5		9056A	Total/NA
Calcium	164		1.00		mg/L	1		6010C	Total/NA
Iron	2.04		0.100		mg/L	1		6010C	Total/NA
Magnesium	52.8		1.00		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: MW-47D (Continued)

Lab Sample ID: 310-51636-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.718		0.0100		mg/L	1		6010C	Total/NA
Potassium	4.90		1.00		mg/L	1		6010C	Total/NA
Sodium	25.1		1.00		mg/L	1		6010C	Total/NA
Total Organic Carbon	2.05		1.00		mg/L	1		9060A	Total/NA
Alkalinity as CaCO3	454		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	454		5.00		mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-51636-1

Date Collected: 03/24/15 00:00
Matrix: Water
Date Received: 03/24/15 19:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			03/26/15 02:21	1
Benzene	<0.500		0.500		ug/L			03/26/15 02:21	1
Bromobenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
Bromochloromethane	<5.00		5.00		ug/L			03/26/15 02:21	1
Bromodichloromethane	<1.00		1.00		ug/L			03/26/15 02:21	1
Bromoform	<5.00		5.00		ug/L			03/26/15 02:21	1
Bromomethane	<4.00		4.00		ug/L			03/26/15 02:21	1
2-Butanone (MEK)	<10.0		10.0		ug/L			03/26/15 02:21	1
n-Butylbenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
sec-Butylbenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
tert-Butylbenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
Carbon disulfide	<1.00		1.00		ug/L			03/26/15 02:21	1
Carbon tetrachloride	<2.00		2.00		ug/L			03/26/15 02:21	1
Chlorobenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
Chlorodibromomethane	<5.00		5.00		ug/L			03/26/15 02:21	1
Chloroethane	<4.00		4.00		ug/L			03/26/15 02:21	1
Chloroform	<1.00		1.00		ug/L			03/26/15 02:21	1
Chloromethane	<3.00		3.00		ug/L			03/26/15 02:21	1
2-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 02:21	1
4-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 02:21	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			03/26/15 02:21	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			03/26/15 02:21	1
Dibromomethane	<1.00		1.00		ug/L			03/26/15 02:21	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			03/26/15 02:21	1
1,1-Dichloroethane	<1.00		1.00		ug/L			03/26/15 02:21	1
1,2-Dichloroethane	<1.00		1.00		ug/L			03/26/15 02:21	1
1,1-Dichloroethene	<2.00		2.00		ug/L			03/26/15 02:21	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			03/26/15 02:21	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			03/26/15 02:21	1
1,2-Dichloropropane	<1.00		1.00		ug/L			03/26/15 02:21	1
1,3-Dichloropropane	<1.00		1.00		ug/L			03/26/15 02:21	1
2,2-Dichloropropane	<4.00		4.00		ug/L			03/26/15 02:21	1
1,1-Dichloropropene	<1.00		1.00		ug/L			03/26/15 02:21	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 02:21	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 02:21	1
Ethylbenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
Hexachlorobutadiene	<5.00		5.00		ug/L			03/26/15 02:21	1
Hexane	<1.00		1.00		ug/L			03/26/15 02:21	1
Isopropylbenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
p-Isopropyltoluene	<1.00		1.00		ug/L			03/26/15 02:21	1
Methylene Chloride	<5.00		5.00		ug/L			03/26/15 02:21	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			03/26/15 02:21	1
Naphthalene	<5.00		5.00		ug/L			03/26/15 02:21	1
N-Propylbenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
Styrene	<1.00		1.00		ug/L			03/26/15 02:21	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 02:21	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-51636-1

Date Collected: 03/24/15 00:00
Matrix: Water
Date Received: 03/24/15 19:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 02:21	1
Tetrachloroethene	<1.00		1.00		ug/L			03/26/15 02:21	1
Toluene	<1.00		1.00		ug/L			03/26/15 02:21	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 02:21	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 02:21	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			03/26/15 02:21	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			03/26/15 02:21	1
Trichloroethene	<1.00		1.00		ug/L			03/26/15 02:21	1
Trichlorofluoromethane	<4.00		4.00		ug/L			03/26/15 02:21	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			03/26/15 02:21	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 02:21	1
Vinyl chloride	<1.00		1.00		ug/L			03/26/15 02:21	1
Xylenes, Total	<3.00		3.00		ug/L			03/26/15 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*75 - 120*		*03/26/15 02:21*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*03/26/15 02:21*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/26/15 02:21*	*1*

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: MW-65

Date Collected: 03/24/15 10:40
Date Received: 03/24/15 19:00

Lab Sample ID: 310-51636-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			03/26/15 07:50	1
Benzene	<0.500		0.500		ug/L			03/26/15 07:50	1
Bromobenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
Bromochloromethane	<5.00		5.00		ug/L			03/26/15 07:50	1
Bromodichloromethane	<1.00		1.00		ug/L			03/26/15 07:50	1
Bromoform	<5.00		5.00		ug/L			03/26/15 07:50	1
Bromomethane	<4.00		4.00		ug/L			03/26/15 07:50	1
2-Butanone (MEK)	<10.0		10.0		ug/L			03/26/15 07:50	1
n-Butylbenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
sec-Butylbenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
tert-Butylbenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
Carbon disulfide	<1.00		1.00		ug/L			03/26/15 07:50	1
Carbon tetrachloride	<2.00		2.00		ug/L			03/26/15 07:50	1
Chlorobenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
Chlorodibromomethane	<5.00		5.00		ug/L			03/26/15 07:50	1
Chloroethane	<4.00		4.00		ug/L			03/26/15 07:50	1
Chloroform	<1.00		1.00		ug/L			03/26/15 07:50	1
Chloromethane	<3.00		3.00		ug/L			03/26/15 07:50	1
2-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 07:50	1
4-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 07:50	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			03/26/15 07:50	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			03/26/15 07:50	1
Dibromomethane	<1.00		1.00		ug/L			03/26/15 07:50	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			03/26/15 07:50	1
1,1-Dichloroethane	<1.00		1.00		ug/L			03/26/15 07:50	1
1,2-Dichloroethane	<1.00		1.00		ug/L			03/26/15 07:50	1
1,1-Dichloroethene	<2.00		2.00		ug/L			03/26/15 07:50	1
cis-1,2-Dichloroethene	**29.7**		1.00		ug/L			03/26/15 07:50	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			03/26/15 07:50	1
1,2-Dichloropropane	<1.00		1.00		ug/L			03/26/15 07:50	1
1,3-Dichloropropane	<1.00		1.00		ug/L			03/26/15 07:50	1
2,2-Dichloropropane	<4.00		4.00		ug/L			03/26/15 07:50	1
1,1-Dichloropropene	<1.00		1.00		ug/L			03/26/15 07:50	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 07:50	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 07:50	1
Ethylbenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
Hexachlorobutadiene	<5.00		5.00		ug/L			03/26/15 07:50	1
Hexane	<1.00		1.00		ug/L			03/26/15 07:50	1
Isopropylbenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
p-Isopropyltoluene	<1.00		1.00		ug/L			03/26/15 07:50	1
Methylene Chloride	<5.00		5.00		ug/L			03/26/15 07:50	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			03/26/15 07:50	1
Naphthalene	<5.00		5.00		ug/L			03/26/15 07:50	1
N-Propylbenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
Styrene	<1.00		1.00		ug/L			03/26/15 07:50	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 07:50	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: MW-65

Date Collected: 03/24/15 10:40
Date Received: 03/24/15 19:00

Lab Sample ID: 310-51636-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 07:50	1
Tetrachloroethene	<1.00		1.00		ug/L			03/26/15 07:50	1
Toluene	<1.00		1.00		ug/L			03/26/15 07:50	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 07:50	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 07:50	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			03/26/15 07:50	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			03/26/15 07:50	1
Trichloroethene	**2370**		20.0		ug/L			03/26/15 10:25	20
Trichlorofluoromethane	<4.00		4.00		ug/L			03/26/15 07:50	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			03/26/15 07:50	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 07:50	1
Vinyl chloride	**1.89**		1.00		ug/L			03/26/15 07:50	1
Xylenes, Total	<3.00		3.00		ug/L			03/26/15 07:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*		*03/26/15 07:50*	*1*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*03/26/15 10:25*	*20*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*03/26/15 07:50*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 120*		*03/26/15 10:25*	*20*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/26/15 07:50*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/26/15 10:25*	*20*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.32**		1.00		mg/L			03/30/15 10:01	1
Sulfate	**1.65**		1.00		mg/L			03/30/15 10:01	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**133**		1.00		mg/L		03/26/15 08:44	03/26/15 19:10	1
Iron	**4.53**		0.100		mg/L		03/26/15 08:44	03/26/15 19:10	1
Magnesium	**33.2**		1.00		mg/L		03/26/15 08:44	03/26/15 19:10	1
Manganese	**0.345**		0.0100		mg/L		03/26/15 08:44	03/26/15 19:10	1
Potassium	**2.21**		1.00		mg/L		03/26/15 08:44	03/26/15 19:10	1
Sodium	**48.9**		1.00		mg/L		03/26/15 08:44	03/26/15 19:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.81**		1.00		mg/L			04/01/15 15:51	1
Alkalinity as CaCO3	**585**		5.00		mg/L			03/31/15 12:19	1
Bicarbonate Alkalinity as CaCO3	**585**		5.00		mg/L			03/31/15 12:19	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			03/31/15 12:19	1
Hydroxide Alkalinity as CaCO3	<5.00		5.00		mg/L			03/31/15 12:19	1
Phenolphthalein Alkalinity as CaCO3	<5.00		5.00		mg/L			03/31/15 12:19	1
Nitrite as N	<0.100		0.100		mg/L			03/25/15 14:20	1
Nitrate as N	<0.100		0.100		mg/L			03/25/15 13:26	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: Duplicate

Date Collected: 03/24/15 11:10
Date Received: 03/24/15 19:00

Lab Sample ID: 310-51636-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			03/26/15 08:12	1
Benzene	<0.500		0.500		ug/L			03/26/15 08:12	1
Bromobenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
Bromochloromethane	<5.00		5.00		ug/L			03/26/15 08:12	1
Bromodichloromethane	<1.00		1.00		ug/L			03/26/15 08:12	1
Bromoform	<5.00		5.00		ug/L			03/26/15 08:12	1
Bromomethane	<4.00		4.00		ug/L			03/26/15 08:12	1
2-Butanone (MEK)	<10.0		10.0		ug/L			03/26/15 08:12	1
n-Butylbenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
sec-Butylbenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
tert-Butylbenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
Carbon disulfide	<1.00		1.00		ug/L			03/26/15 08:12	1
Carbon tetrachloride	<2.00		2.00		ug/L			03/26/15 08:12	1
Chlorobenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
Chlorodibromomethane	<5.00		5.00		ug/L			03/26/15 08:12	1
Chloroethane	<4.00		4.00		ug/L			03/26/15 08:12	1
Chloroform	<1.00		1.00		ug/L			03/26/15 08:12	1
Chloromethane	<3.00		3.00		ug/L			03/26/15 08:12	1
2-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 08:12	1
4-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 08:12	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			03/26/15 08:12	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			03/26/15 08:12	1
Dibromomethane	<1.00		1.00		ug/L			03/26/15 08:12	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			03/26/15 08:12	1
1,1-Dichloroethane	<1.00		1.00		ug/L			03/26/15 08:12	1
1,2-Dichloroethane	<1.00		1.00		ug/L			03/26/15 08:12	1
1,1-Dichloroethene	<2.00		2.00		ug/L			03/26/15 08:12	1
cis-1,2-Dichloroethene	**28.1**		1.00		ug/L			03/26/15 08:12	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			03/26/15 08:12	1
1,2-Dichloropropane	<1.00		1.00		ug/L			03/26/15 08:12	1
1,3-Dichloropropane	<1.00		1.00		ug/L			03/26/15 08:12	1
2,2-Dichloropropane	<4.00		4.00		ug/L			03/26/15 08:12	1
1,1-Dichloropropene	<1.00		1.00		ug/L			03/26/15 08:12	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 08:12	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 08:12	1
Ethylbenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
Hexachlorobutadiene	<5.00		5.00		ug/L			03/26/15 08:12	1
Hexane	<1.00		1.00		ug/L			03/26/15 08:12	1
Isopropylbenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
p-Isopropyltoluene	<1.00		1.00		ug/L			03/26/15 08:12	1
Methylene Chloride	<5.00		5.00		ug/L			03/26/15 08:12	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			03/26/15 08:12	1
Naphthalene	<5.00		5.00		ug/L			03/26/15 08:12	1
N-Propylbenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
Styrene	<1.00		1.00		ug/L			03/26/15 08:12	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 08:12	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: Duplicate

Date Collected: 03/24/15 11:10
Date Received: 03/24/15 19:00

Lab Sample ID: 310-51636-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 08:12	1
Tetrachloroethene	<1.00		1.00		ug/L			03/26/15 08:12	1
Toluene	<1.00		1.00		ug/L			03/26/15 08:12	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 08:12	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 08:12	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			03/26/15 08:12	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			03/26/15 08:12	1
Trichloroethene	**2360**		20.0		ug/L			03/26/15 12:16	20
Trichlorofluoromethane	<4.00		4.00		ug/L			03/26/15 08:12	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			03/26/15 08:12	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 08:12	1
Vinyl chloride	**1.90**		1.00		ug/L			03/26/15 08:12	1
Xylenes, Total	<3.00		3.00		ug/L			03/26/15 08:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*75 - 120*		*03/26/15 08:12*	*1*
4-Bromofluorobenzene (Surr)	*91*		*75 - 120*		*03/26/15 12:16*	*20*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*03/26/15 08:12*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*03/26/15 12:16*	*20*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/26/15 08:12*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*03/26/15 12:16*	*20*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.26**		1.00		mg/L			03/30/15 10:01	1
Sulfate	**1.69**		1.00		mg/L			03/30/15 10:01	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**129**		1.00		mg/L		03/26/15 08:44	03/26/15 19:15	1
Iron	**4.15**		0.100		mg/L		03/26/15 08:44	03/26/15 19:15	1
Magnesium	**31.6**		1.00		mg/L		03/26/15 08:44	03/26/15 19:15	1
Manganese	**0.328**		0.0100		mg/L		03/26/15 08:44	03/26/15 19:15	1
Potassium	**2.09**		1.00		mg/L		03/26/15 08:44	03/26/15 19:15	1
Sodium	**46.5**		1.00		mg/L		03/26/15 08:44	03/26/15 19:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.83**		1.00		mg/L			04/01/15 16:40	1
Alkalinity as CaCO3	**579**		5.00		mg/L			03/31/15 12:19	1
Bicarbonate Alkalinity as CaCO3	**579**		5.00		mg/L			03/31/15 12:19	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			03/31/15 12:19	1
Hydroxide Alkalinity as CaCO3	<5.00		5.00		mg/L			03/31/15 12:19	1
Phenolphthalein Alkalinity as CaCO3	<5.00		5.00		mg/L			03/31/15 12:19	1
Nitrite as N	<0.100		0.100		mg/L			03/25/15 14:20	1
Nitrate as N	<0.100		0.100		mg/L			03/25/15 13:28	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: MW-47D

Date Collected: 03/24/15 12:25
Date Received: 03/24/15 19:00

Lab Sample ID: 310-51636-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			03/26/15 08:34	1
Benzene	<0.500		0.500		ug/L			03/26/15 08:34	1
Bromobenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
Bromochloromethane	<5.00		5.00		ug/L			03/26/15 08:34	1
Bromodichloromethane	<1.00		1.00		ug/L			03/26/15 08:34	1
Bromoform	<5.00		5.00		ug/L			03/26/15 08:34	1
Bromomethane	<4.00		4.00		ug/L			03/26/15 08:34	1
2-Butanone (MEK)	<10.0		10.0		ug/L			03/26/15 08:34	1
n-Butylbenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
sec-Butylbenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
tert-Butylbenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
Carbon disulfide	<1.00		1.00		ug/L			03/26/15 08:34	1
Carbon tetrachloride	<2.00		2.00		ug/L			03/26/15 08:34	1
Chlorobenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
Chlorodibromomethane	<5.00		5.00		ug/L			03/26/15 08:34	1
Chloroethane	<4.00		4.00		ug/L			03/26/15 08:34	1
Chloroform	<1.00		1.00		ug/L			03/26/15 08:34	1
Chloromethane	<3.00		3.00		ug/L			03/26/15 08:34	1
2-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 08:34	1
4-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 08:34	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			03/26/15 08:34	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			03/26/15 08:34	1
Dibromomethane	<1.00		1.00		ug/L			03/26/15 08:34	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			03/26/15 08:34	1
1,1-Dichloroethane	<1.00		1.00		ug/L			03/26/15 08:34	1
1,2-Dichloroethane	<1.00		1.00		ug/L			03/26/15 08:34	1
1,1-Dichloroethene	**110**		2.00		ug/L			03/26/15 08:34	1
cis-1,2-Dichloroethene	**37000**	**B**	100		ug/L			03/26/15 12:38	100
trans-1,2-Dichloroethene	**321**		1.00		ug/L			03/26/15 08:34	1
1,2-Dichloropropane	<1.00		1.00		ug/L			03/26/15 08:34	1
1,3-Dichloropropane	<1.00		1.00		ug/L			03/26/15 08:34	1
2,2-Dichloropropane	<4.00		4.00		ug/L			03/26/15 08:34	1
1,1-Dichloropropene	<1.00		1.00		ug/L			03/26/15 08:34	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 08:34	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 08:34	1
Ethylbenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
Hexachlorobutadiene	<5.00		5.00		ug/L			03/26/15 08:34	1
Hexane	<1.00		1.00		ug/L			03/26/15 08:34	1
Isopropylbenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
p-Isopropyltoluene	<1.00		1.00		ug/L			03/26/15 08:34	1
Methylene Chloride	<5.00		5.00		ug/L			03/26/15 08:34	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			03/26/15 08:34	1
Naphthalene	<5.00		5.00		ug/L			03/26/15 08:34	1
N-Propylbenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
Styrene	<1.00		1.00		ug/L			03/26/15 08:34	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 08:34	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: MW-47D

Date Collected: 03/24/15 12:25
Date Received: 03/24/15 19:00

Lab Sample ID: 310-51636-4

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 08:34	1
Tetrachloroethene	**4.84**		1.00		ug/L			03/26/15 08:34	1
Toluene	<1.00		1.00		ug/L			03/26/15 08:34	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 08:34	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 08:34	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			03/26/15 08:34	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			03/26/15 08:34	1
Trichloroethene	**28800**		100		ug/L			03/26/15 12:38	100
Trichlorofluoromethane	<4.00		4.00		ug/L			03/26/15 08:34	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			03/26/15 08:34	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 08:34	1
Vinyl chloride	**491**		1.00		ug/L			03/26/15 08:34	1
Xylenes, Total	<3.00		3.00		ug/L			03/26/15 08:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*03/26/15 08:34*	*1*
4-Bromofluorobenzene (Surr)	*90*		*75 - 120*		*03/26/15 12:38*	*100*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*03/26/15 08:34*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 120*		*03/26/15 12:38*	*100*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/26/15 08:34*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/26/15 12:38*	*100*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**155**		5.00		mg/L			03/30/15 10:01	5
Sulfate	**9.86**		5.00		mg/L			03/30/15 10:01	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**164**		1.00		mg/L		03/26/15 08:44	03/26/15 19:17	1
Iron	**2.04**		0.100		mg/L		03/26/15 08:44	03/26/15 19:17	1
Magnesium	**52.8**		1.00		mg/L		03/26/15 08:44	03/26/15 19:17	1
Manganese	**0.718**		0.0100		mg/L		03/26/15 08:44	03/26/15 19:17	1
Potassium	**4.90**		1.00		mg/L		03/26/15 08:44	03/26/15 19:17	1
Sodium	**25.1**		1.00		mg/L		03/26/15 08:44	03/26/15 19:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.05**		1.00		mg/L			04/01/15 16:57	1
Alkalinity as CaCO3	**454**		5.00		mg/L			03/31/15 12:19	1
Bicarbonate Alkalinity as CaCO3	**454**		5.00		mg/L			03/31/15 12:19	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			03/31/15 12:19	1
Hydroxide Alkalinity as CaCO3	<5.00		5.00		mg/L			03/31/15 12:19	1
Phenolphthalein Alkalinity as CaCO3	<5.00		5.00		mg/L			03/31/15 12:19	1
Nitrite as N	<0.100		0.100		mg/L			03/25/15 14:20	1
Nitrate as N	<0.100		0.100		mg/L			03/25/15 13:30	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-51636-2	MW-65	98	105	97
310-51636-2	MW-65	96	103	101
310-51636-3	Duplicate	89	103	102
310-51636-3	Duplicate	91	101	104
310-51636-4	MW-47D	98	99	102
310-51636-4	MW-47D	90	104	97

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-51636-1	Trip Blank	93	99	97
LCS 310-81155/4	Lab Control Sample	97	108	98
LCS 310-81161/4	Lab Control Sample	91	102	100
LCS 310-81164/4	Lab Control Sample	94	104	101
MB 310-81155/6	Method Blank	99	105	96
MB 310-81161/6	Method Blank	94	107	103
MB 310-81164/7	Method Blank	93	103	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-81155/6
Matrix: Water
Analysis Batch: 81155

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			03/26/15 00:59	1
Benzene	<0.500		0.500		ug/L			03/26/15 00:59	1
Bromobenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
Bromochloromethane	<5.00		5.00		ug/L			03/26/15 00:59	1
Bromodichloromethane	<1.00		1.00		ug/L			03/26/15 00:59	1
Bromoform	<5.00		5.00		ug/L			03/26/15 00:59	1
Bromomethane	<4.00		4.00		ug/L			03/26/15 00:59	1
2-Butanone (MEK)	<10.0		10.0		ug/L			03/26/15 00:59	1
n-Butylbenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
sec-Butylbenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
tert-Butylbenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
Carbon disulfide	<1.00		1.00		ug/L			03/26/15 00:59	1
Carbon tetrachloride	<2.00		2.00		ug/L			03/26/15 00:59	1
Chlorobenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
Chlorodibromomethane	<5.00		5.00		ug/L			03/26/15 00:59	1
Chloroethane	<4.00		4.00		ug/L			03/26/15 00:59	1
Chloroform	<1.00		1.00		ug/L			03/26/15 00:59	1
Chloromethane	<3.00		3.00		ug/L			03/26/15 00:59	1
2-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 00:59	1
4-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 00:59	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			03/26/15 00:59	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			03/26/15 00:59	1
Dibromomethane	<1.00		1.00		ug/L			03/26/15 00:59	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			03/26/15 00:59	1
1,1-Dichloroethane	<1.00		1.00		ug/L			03/26/15 00:59	1
1,2-Dichloroethane	<1.00		1.00		ug/L			03/26/15 00:59	1
1,1-Dichloroethene	<2.00		2.00		ug/L			03/26/15 00:59	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			03/26/15 00:59	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			03/26/15 00:59	1
1,2-Dichloropropane	<1.00		1.00		ug/L			03/26/15 00:59	1
1,3-Dichloropropane	<1.00		1.00		ug/L			03/26/15 00:59	1
2,2-Dichloropropane	<4.00		4.00		ug/L			03/26/15 00:59	1
1,1-Dichloropropene	<1.00		1.00		ug/L			03/26/15 00:59	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 00:59	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 00:59	1
Ethylbenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
Hexachlorobutadiene	<5.00		5.00		ug/L			03/26/15 00:59	1
Hexane	<1.00		1.00		ug/L			03/26/15 00:59	1
Isopropylbenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
p-Isopropyltoluene	<1.00		1.00		ug/L			03/26/15 00:59	1
Methylene Chloride	<5.00		5.00		ug/L			03/26/15 00:59	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			03/26/15 00:59	1
Naphthalene	<5.00		5.00		ug/L			03/26/15 00:59	1
N-Propylbenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
Styrene	<1.00		1.00		ug/L			03/26/15 00:59	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-81155/6
Matrix: Water
Analysis Batch: 81155

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 00:59	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 00:59	1
Tetrachloroethene	<1.00		1.00		ug/L			03/26/15 00:59	1
Toluene	<1.00		1.00		ug/L			03/26/15 00:59	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 00:59	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 00:59	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			03/26/15 00:59	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			03/26/15 00:59	1
Trichloroethene	<1.00		1.00		ug/L			03/26/15 00:59	1
Trichlorofluoromethane	<4.00		4.00		ug/L			03/26/15 00:59	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			03/26/15 00:59	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 00:59	1
Vinyl chloride	<1.00		1.00		ug/L			03/26/15 00:59	1
Xylenes, Total	<3.00		3.00		ug/L			03/26/15 00:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*03/26/15 00:59*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 120*		*03/26/15 00:59*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/26/15 00:59*	*1*

Lab Sample ID: LCS 310-81155/4
Matrix: Water
Analysis Batch: 81155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	40.06		ug/L		100	60 - 150
Benzene	20.0	18.53		ug/L		93	70 - 130
Bromobenzene	20.0	18.12		ug/L		91	75 - 130
Bromochloromethane	20.0	20.66		ug/L		103	65 - 145
Bromodichloromethane	20.0	17.88		ug/L		89	60 - 130
Bromoform	20.0	14.12		ug/L		71	30 - 125
Bromomethane	20.0	17.85		ug/L		89	35 - 130
2-Butanone (MEK)	40.0	37.63		ug/L		94	55 - 140
n-Butylbenzene	20.0	18.76		ug/L		94	55 - 135
sec-Butylbenzene	20.0	19.22		ug/L		96	65 - 135
tert-Butylbenzene	20.0	18.42		ug/L		92	60 - 135
Carbon disulfide	20.0	18.42		ug/L		92	40 - 130
Carbon tetrachloride	20.0	22.59		ug/L		113	55 - 130
Chlorobenzene	20.0	18.40		ug/L		92	75 - 125
Chlorodibromomethane	20.0	17.38		ug/L		87	45 - 125
Chloroethane	20.0	24.69		ug/L		123	55 - 135
Chloroform	20.0	20.32		ug/L		102	70 - 125
Chloromethane	20.0	21.60		ug/L		108	30 - 125
2-Chlorotoluene	20.0	18.13		ug/L		91	75 - 135
4-Chlorotoluene	20.0	18.13		ug/L		91	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	16.16		ug/L		81	35 - 130
1,2-Dibromoethane (EDB)	20.0	19.47		ug/L		97	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-81155/4
Matrix: Water
Analysis Batch: 81155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	20.53		ug/L		103	75 - 130
1,2-Dichlorobenzene	20.0	18.15		ug/L		91	65 - 135
1,3-Dichlorobenzene	20.0	18.11		ug/L		91	70 - 130
1,4-Dichlorobenzene	20.0	17.92		ug/L		90	60 - 140
Dichlorodifluoromethane	20.0	29.91	*	ug/L		150	35 - 130
1,1-Dichloroethane	20.0	20.31		ug/L		102	60 - 130
1,2-Dichloroethane	20.0	20.37		ug/L		102	65 - 140
1,1-Dichloroethene	20.0	19.22		ug/L		96	60 - 135
cis-1,2-Dichloroethene	20.0	19.35		ug/L		97	70 - 135
trans-1,2-Dichloroethene	20.0	18.90		ug/L		95	60 - 145
1,2-Dichloropropane	20.0	18.30		ug/L		92	65 - 130
1,3-Dichloropropane	20.0	19.30		ug/L		96	75 - 125
2,2-Dichloropropane	20.0	17.15		ug/L		86	25 - 120
1,1-Dichloropropene	20.0	18.87		ug/L		94	60 - 140
cis-1,3-Dichloropropene	20.0	17.02		ug/L		85	30 - 120
trans-1,3-Dichloropropene	20.0	16.46		ug/L		82	35 - 120
Ethylbenzene	20.0	18.04		ug/L		90	70 - 130
Hexachlorobutadiene	20.0	18.25		ug/L		91	60 - 135
Hexane	20.0	18.68		ug/L		93	40 - 135
Isopropylbenzene	20.0	18.36		ug/L		92	70 - 125
p-Isopropyltoluene	20.0	18.82		ug/L		94	60 - 140
Methylene Chloride	20.0	24.52		ug/L		123	55 - 145
Methyl tert-butyl ether	20.0	19.00		ug/L		95	50 - 135
Naphthalene	20.0	17.15		ug/L		86	40 - 135
N-Propylbenzene	20.0	18.62		ug/L		93	70 - 135
Styrene	20.0	17.47		ug/L		87	70 - 130
1,1,1,2-Tetrachloroethane	20.0	17.91		ug/L		90	65 - 120
1,1,2,2-Tetrachloroethane	20.0	17.47		ug/L		87	65 - 130
Tetrachloroethene	20.0	21.90		ug/L		109	70 - 135
Toluene	20.0	18.59		ug/L		93	70 - 135
1,2,3-Trichlorobenzene	20.0	18.63		ug/L		93	55 - 130
1,2,4-Trichlorobenzene	20.0	17.97		ug/L		90	40 - 135
1,1,1-Trichloroethane	20.0	20.70		ug/L		104	60 - 125
1,1,2-Trichloroethane	20.0	18.83		ug/L		94	75 - 125
Trichloroethene	20.0	19.44		ug/L		97	70 - 130
Trichlorofluoromethane	20.0	29.14	*	ug/L		146	55 - 145
1,2,3-Trichloropropane	20.0	17.61		ug/L		88	60 - 150
1,2,4-Trimethylbenzene	20.0	18.53		ug/L		93	70 - 140
1,3,5-Trimethylbenzene	20.0	18.80		ug/L		94	70 - 140
Vinyl chloride	20.0	25.39		ug/L		127	45 - 135
Xylenes, Total	40.0	36.24		ug/L		91	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*75 - 120*
Dibromofluoromethane (Surr)	*108*		*75 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-81161/6
Matrix: Water
Analysis Batch: 81161

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			03/26/15 01:15	1
Benzene	<0.500		0.500		ug/L			03/26/15 01:15	1
Bromobenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
Bromochloromethane	<5.00		5.00		ug/L			03/26/15 01:15	1
Bromodichloromethane	<1.00		1.00		ug/L			03/26/15 01:15	1
Bromoform	<5.00		5.00		ug/L			03/26/15 01:15	1
Bromomethane	<4.00		4.00		ug/L			03/26/15 01:15	1
2-Butanone (MEK)	<10.0		10.0		ug/L			03/26/15 01:15	1
n-Butylbenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
sec-Butylbenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
tert-Butylbenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
Carbon disulfide	<1.00		1.00		ug/L			03/26/15 01:15	1
Carbon tetrachloride	<2.00		2.00		ug/L			03/26/15 01:15	1
Chlorobenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
Chlorodibromomethane	<5.00		5.00		ug/L			03/26/15 01:15	1
Chloroethane	<4.00		4.00		ug/L			03/26/15 01:15	1
Chloroform	<1.00		1.00		ug/L			03/26/15 01:15	1
Chloromethane	<3.00		3.00		ug/L			03/26/15 01:15	1
2-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 01:15	1
4-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 01:15	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			03/26/15 01:15	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			03/26/15 01:15	1
Dibromomethane	<1.00		1.00		ug/L			03/26/15 01:15	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			03/26/15 01:15	1
1,1-Dichloroethane	<1.00		1.00		ug/L			03/26/15 01:15	1
1,2-Dichloroethane	<1.00		1.00		ug/L			03/26/15 01:15	1
1,1-Dichloroethene	<2.00		2.00		ug/L			03/26/15 01:15	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			03/26/15 01:15	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			03/26/15 01:15	1
1,2-Dichloropropane	<1.00		1.00		ug/L			03/26/15 01:15	1
1,3-Dichloropropane	<1.00		1.00		ug/L			03/26/15 01:15	1
2,2-Dichloropropane	<4.00		4.00		ug/L			03/26/15 01:15	1
1,1-Dichloropropene	<1.00		1.00		ug/L			03/26/15 01:15	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 01:15	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 01:15	1
Ethylbenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
Hexachlorobutadiene	<5.00		5.00		ug/L			03/26/15 01:15	1
Hexane	<1.00		1.00		ug/L			03/26/15 01:15	1
Isopropylbenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
p-Isopropyltoluene	<1.00		1.00		ug/L			03/26/15 01:15	1
Methylene Chloride	<5.00		5.00		ug/L			03/26/15 01:15	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			03/26/15 01:15	1
Naphthalene	<5.00		5.00		ug/L			03/26/15 01:15	1
N-Propylbenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
Styrene	<1.00		1.00		ug/L			03/26/15 01:15	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-81161/6
Matrix: Water
Analysis Batch: 81161

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 01:15	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 01:15	1
Tetrachloroethene	<1.00		1.00		ug/L			03/26/15 01:15	1
Toluene	<1.00		1.00		ug/L			03/26/15 01:15	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 01:15	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 01:15	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			03/26/15 01:15	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			03/26/15 01:15	1
Trichloroethene	<1.00		1.00		ug/L			03/26/15 01:15	1
Trichlorofluoromethane	<4.00		4.00		ug/L			03/26/15 01:15	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			03/26/15 01:15	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 01:15	1
Vinyl chloride	<1.00		1.00		ug/L			03/26/15 01:15	1
Xylenes, Total	<3.00		3.00		ug/L			03/26/15 01:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*75 - 120*		*03/26/15 01:15*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*03/26/15 01:15*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*03/26/15 01:15*	*1*

Lab Sample ID: LCS 310-81161/4
Matrix: Water
Analysis Batch: 81161

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	40.79		ug/L		102	60 - 150
Benzene	20.0	17.33		ug/L		87	70 - 130
Bromobenzene	20.0	19.19		ug/L		96	75 - 130
Bromochloromethane	20.0	19.51		ug/L		98	65 - 145
Bromodichloromethane	20.0	17.62		ug/L		88	60 - 130
Bromoform	20.0	17.67		ug/L		88	30 - 125
Bromomethane	20.0	18.02		ug/L		90	35 - 130
2-Butanone (MEK)	40.0	36.87		ug/L		92	55 - 140
n-Butylbenzene	20.0	16.41		ug/L		82	55 - 135
sec-Butylbenzene	20.0	17.89		ug/L		89	65 - 135
tert-Butylbenzene	20.0	17.58		ug/L		88	60 - 135
Carbon disulfide	20.0	15.96		ug/L		80	40 - 130
Carbon tetrachloride	20.0	19.02		ug/L		95	55 - 130
Chlorobenzene	20.0	17.96		ug/L		90	75 - 125
Chlorodibromomethane	20.0	17.35		ug/L		87	45 - 125
Chloroethane	20.0	18.56		ug/L		93	55 - 135
Chloroform	20.0	16.72		ug/L		84	70 - 125
Chloromethane	20.0	17.01		ug/L		85	30 - 125
2-Chlorotoluene	20.0	18.31		ug/L		92	75 - 135
4-Chlorotoluene	20.0	18.79		ug/L		94	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	17.08		ug/L		85	35 - 130
1,2-Dibromoethane (EDB)	20.0	18.71		ug/L		94	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-81161/4
Matrix: Water
Analysis Batch: 81161

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	17.78		ug/L		89	75 - 130
1,2-Dichlorobenzene	20.0	17.83		ug/L		89	65 - 135
1,3-Dichlorobenzene	20.0	18.78		ug/L		94	70 - 130
1,4-Dichlorobenzene	20.0	17.26		ug/L		86	60 - 140
Dichlorodifluoromethane	20.0	20.83		ug/L		104	35 - 130
1,1-Dichloroethane	20.0	18.27		ug/L		91	60 - 130
1,2-Dichloroethane	20.0	21.69		ug/L		108	65 - 140
1,1-Dichloroethene	20.0	17.49		ug/L		87	60 - 135
cis-1,2-Dichloroethene	20.0	17.82		ug/L		89	70 - 135
trans-1,2-Dichloroethene	20.0	17.54		ug/L		88	60 - 145
1,2-Dichloropropane	20.0	17.52		ug/L		88	65 - 130
1,3-Dichloropropane	20.0	18.38		ug/L		92	75 - 125
2,2-Dichloropropane	20.0	17.25		ug/L		86	25 - 120
1,1-Dichloropropene	20.0	17.06		ug/L		85	60 - 140
cis-1,3-Dichloropropene	20.0	18.16		ug/L		91	30 - 120
trans-1,3-Dichloropropene	20.0	17.43		ug/L		87	35 - 120
Ethylbenzene	20.0	18.13		ug/L		91	70 - 130
Hexachlorobutadiene	20.0	15.82		ug/L		79	60 - 135
Hexane	20.0	14.97		ug/L		75	40 - 135
Isopropylbenzene	20.0	18.46		ug/L		92	70 - 125
p-Isopropyltoluene	20.0	16.88		ug/L		84	60 - 140
Methylene Chloride	20.0	22.96		ug/L		115	55 - 145
Methyl tert-butyl ether	20.0	19.60		ug/L		98	50 - 135
Naphthalene	20.0	17.27		ug/L		86	40 - 135
N-Propylbenzene	20.0	17.87		ug/L		89	70 - 135
Styrene	20.0	17.48		ug/L		87	70 - 130
1,1,1,2-Tetrachloroethane	20.0	17.81		ug/L		89	65 - 120
1,1,2,2-Tetrachloroethane	20.0	18.44		ug/L		92	65 - 130
Tetrachloroethene	20.0	21.17		ug/L		106	70 - 135
Toluene	20.0	18.43		ug/L		92	70 - 135
1,2,3-Trichlorobenzene	20.0	17.10		ug/L		86	55 - 130
1,2,4-Trichlorobenzene	20.0	17.19		ug/L		86	40 - 135
1,1,1-Trichloroethane	20.0	19.20		ug/L		96	60 - 125
1,1,2-Trichloroethane	20.0	17.96		ug/L		90	75 - 125
Trichloroethene	20.0	18.17		ug/L		91	70 - 130
Trichlorofluoromethane	20.0	23.36		ug/L		117	55 - 145
1,2,3-Trichloropropane	20.0	18.75		ug/L		94	60 - 150
1,2,4-Trimethylbenzene	20.0	18.00		ug/L		90	70 - 140
1,3,5-Trimethylbenzene	20.0	18.01		ug/L		90	70 - 140
Vinyl chloride	20.0	17.42		ug/L		87	45 - 135
Xylenes, Total	40.0	35.70		ug/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*75 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-81164/7
Matrix: Water
Analysis Batch: 81164

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			03/26/15 11:54	1
Benzene	<0.500		0.500		ug/L			03/26/15 11:54	1
Bromobenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
Bromochloromethane	<5.00		5.00		ug/L			03/26/15 11:54	1
Bromodichloromethane	<1.00		1.00		ug/L			03/26/15 11:54	1
Bromoform	<5.00		5.00		ug/L			03/26/15 11:54	1
Bromomethane	<4.00		4.00		ug/L			03/26/15 11:54	1
2-Butanone (MEK)	<10.0		10.0		ug/L			03/26/15 11:54	1
n-Butylbenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
sec-Butylbenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
tert-Butylbenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
Carbon disulfide	<1.00		1.00		ug/L			03/26/15 11:54	1
Carbon tetrachloride	<2.00		2.00		ug/L			03/26/15 11:54	1
Chlorobenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
Chlorodibromomethane	<5.00		5.00		ug/L			03/26/15 11:54	1
Chloroethane	<4.00		4.00		ug/L			03/26/15 11:54	1
Chloroform	<1.00		1.00		ug/L			03/26/15 11:54	1
Chloromethane	<3.00		3.00		ug/L			03/26/15 11:54	1
2-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 11:54	1
4-Chlorotoluene	<1.00		1.00		ug/L			03/26/15 11:54	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			03/26/15 11:54	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			03/26/15 11:54	1
Dibromomethane	<1.00		1.00		ug/L			03/26/15 11:54	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			03/26/15 11:54	1
1,1-Dichloroethane	<1.00		1.00		ug/L			03/26/15 11:54	1
1,2-Dichloroethane	<1.00		1.00		ug/L			03/26/15 11:54	1
1,1-Dichloroethene	<2.00		2.00		ug/L			03/26/15 11:54	1
cis-1,2-Dichloroethene	1.553		1.00		ug/L			03/26/15 11:54	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			03/26/15 11:54	1
1,2-Dichloropropane	<1.00		1.00		ug/L			03/26/15 11:54	1
1,3-Dichloropropane	<1.00		1.00		ug/L			03/26/15 11:54	1
2,2-Dichloropropane	<4.00		4.00		ug/L			03/26/15 11:54	1
1,1-Dichloropropene	<1.00		1.00		ug/L			03/26/15 11:54	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 11:54	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			03/26/15 11:54	1
Ethylbenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
Hexachlorobutadiene	<5.00		5.00		ug/L			03/26/15 11:54	1
Hexane	<1.00		1.00		ug/L			03/26/15 11:54	1
Isopropylbenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
p-Isopropyltoluene	<1.00		1.00		ug/L			03/26/15 11:54	1
Methylene Chloride	<5.00		5.00		ug/L			03/26/15 11:54	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			03/26/15 11:54	1
Naphthalene	<5.00		5.00		ug/L			03/26/15 11:54	1
N-Propylbenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
Styrene	<1.00		1.00		ug/L			03/26/15 11:54	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-81164/7
Matrix: Water
Analysis Batch: 81164

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 11:54	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			03/26/15 11:54	1
Tetrachloroethene	<1.00		1.00		ug/L			03/26/15 11:54	1
Toluene	<1.00		1.00		ug/L			03/26/15 11:54	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 11:54	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			03/26/15 11:54	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			03/26/15 11:54	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			03/26/15 11:54	1
Trichloroethene	<1.00		1.00		ug/L			03/26/15 11:54	1
Trichlorofluoromethane	<4.00		4.00		ug/L			03/26/15 11:54	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			03/26/15 11:54	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			03/26/15 11:54	1
Vinyl chloride	<1.00		1.00		ug/L			03/26/15 11:54	1
Xylenes, Total	<3.00		3.00		ug/L			03/26/15 11:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*75 - 120*		*03/26/15 11:54*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*03/26/15 11:54*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/26/15 11:54*	*1*

Lab Sample ID: LCS 310-81164/4
Matrix: Water
Analysis Batch: 81164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	47.24		ug/L		118	60 - 150
Benzene	20.0	20.03		ug/L		100	70 - 130
Bromobenzene	20.0	21.00		ug/L		105	75 - 130
Bromochloromethane	20.0	21.79		ug/L		109	65 - 145
Bromodichloromethane	20.0	20.25		ug/L		101	60 - 130
Bromoform	20.0	20.76		ug/L		104	30 - 125
Bromomethane	20.0	19.71		ug/L		99	35 - 130
2-Butanone (MEK)	40.0	41.77		ug/L		104	55 - 140
n-Butylbenzene	20.0	19.72		ug/L		99	55 - 135
sec-Butylbenzene	20.0	21.24		ug/L		106	65 - 135
tert-Butylbenzene	20.0	21.11		ug/L		106	60 - 135
Carbon disulfide	20.0	19.81		ug/L		99	40 - 130
Carbon tetrachloride	20.0	23.77		ug/L		119	55 - 130
Chlorobenzene	20.0	19.97		ug/L		100	75 - 125
Chlorodibromomethane	20.0	19.96		ug/L		100	45 - 125
Chloroethane	20.0	19.41		ug/L		97	55 - 135
Chloroform	20.0	19.28		ug/L		96	70 - 125
Chloromethane	20.0	19.32		ug/L		97	30 - 125
2-Chlorotoluene	20.0	21.24		ug/L		106	75 - 135
4-Chlorotoluene	20.0	21.85		ug/L		109	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	18.46		ug/L		92	35 - 130
1,2-Dibromoethane (EDB)	20.0	21.82		ug/L		109	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-81164/4
Matrix: Water
Analysis Batch: 81164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	20.0	20.43		ug/L		102	75 - 130
1,2-Dichlorobenzene	20.0	20.95		ug/L		105	65 - 135
1,3-Dichlorobenzene	20.0	21.35		ug/L		107	70 - 130
1,4-Dichlorobenzene	20.0	20.10		ug/L		101	60 - 140
Dichlorodifluoromethane	20.0	22.05		ug/L		110	35 - 130
1,1-Dichloroethane	20.0	21.35		ug/L		107	60 - 130
1,2-Dichloroethane	20.0	23.36		ug/L		117	65 - 140
1,1-Dichloroethene	20.0	20.67		ug/L		103	60 - 135
cis-1,2-Dichloroethene	20.0	21.58		ug/L		108	70 - 135
trans-1,2-Dichloroethene	20.0	19.97		ug/L		100	60 - 145
1,2-Dichloropropane	20.0	19.64		ug/L		98	65 - 130
1,3-Dichloropropane	20.0	19.78		ug/L		99	75 - 125
2,2-Dichloropropane	20.0	22.80		ug/L		114	25 - 120
1,1-Dichloropropene	20.0	21.77		ug/L		109	60 - 140
cis-1,3-Dichloropropene	20.0	19.85		ug/L		99	30 - 120
trans-1,3-Dichloropropene	20.0	19.55		ug/L		98	35 - 120
Ethylbenzene	20.0	21.10		ug/L		105	70 - 130
Hexachlorobutadiene	20.0	21.53		ug/L		108	60 - 135
Hexane	20.0	21.73		ug/L		109	40 - 135
Isopropylbenzene	20.0	21.56		ug/L		108	70 - 125
p-Isopropyltoluene	20.0	20.49		ug/L		102	60 - 140
Methylene Chloride	20.0	19.55		ug/L		98	55 - 145
Methyl tert-butyl ether	20.0	20.79		ug/L		104	50 - 135
Naphthalene	20.0	20.41		ug/L		102	40 - 135
N-Propylbenzene	20.0	20.75		ug/L		104	70 - 135
Styrene	20.0	20.71		ug/L		104	70 - 130
1,1,1,2-Tetrachloroethane	20.0	20.72		ug/L		104	65 - 120
1,1,2,2-Tetrachloroethane	20.0	20.90		ug/L		105	65 - 130
Tetrachloroethene	20.0	22.75		ug/L		114	70 - 135
Toluene	20.0	20.91		ug/L		105	70 - 135
1,2,3-Trichlorobenzene	20.0	20.26		ug/L		101	55 - 130
1,2,4-Trichlorobenzene	20.0	20.37		ug/L		102	40 - 135
1,1,1-Trichloroethane	20.0	23.36		ug/L		117	60 - 125
1,1,2-Trichloroethane	20.0	20.25		ug/L		101	75 - 125
Trichloroethene	20.0	22.53		ug/L		113	70 - 130
Trichlorofluoromethane	20.0	25.23		ug/L		126	55 - 145
1,2,3-Trichloropropane	20.0	20.43		ug/L		102	60 - 150
1,2,4-Trimethylbenzene	20.0	21.15		ug/L		106	70 - 140
1,3,5-Trimethylbenzene	20.0	20.88		ug/L		104	70 - 140
Vinyl chloride	20.0	20.31		ug/L		102	45 - 135
Xylenes, Total	40.0	39.88		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*75 - 120*
Dibromofluoromethane (Surr)	*104*		*75 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-81910/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81910

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			03/30/15 10:01	1
Sulfate	<1.00		1.00		mg/L			03/30/15 10:01	1

Lab Sample ID: LCS 310-81910/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81910

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.50	7.508		mg/L		100	90 - 110
Sulfate	7.50	7.582		mg/L		101	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 310-81291/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81522 — **Prep Batch: 81291**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<1.00		1.00		mg/L		03/26/15 08:44	03/26/15 19:03	1
Iron	<0.100		0.100		mg/L		03/26/15 08:44	03/26/15 19:03	1
Magnesium	<1.00		1.00		mg/L		03/26/15 08:44	03/26/15 19:03	1
Manganese	<0.0100		0.0100		mg/L		03/26/15 08:44	03/26/15 19:03	1
Potassium	<1.00		1.00		mg/L		03/26/15 08:44	03/26/15 19:03	1
Sodium	<1.00		1.00		mg/L		03/26/15 08:44	03/26/15 19:03	1

Lab Sample ID: LCS 310-81291/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81522 — **Prep Batch: 81291**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	20.0	20.29		mg/L		101	80 - 120
Iron	2.00	2.133		mg/L		107	80 - 120
Magnesium	20.0	21.83		mg/L		109	80 - 120
Manganese	1.00	1.037		mg/L		104	80 - 120
Potassium	20.0	20.34		mg/L		102	80 - 120
Sodium	20.0	20.14		mg/L		101	80 - 120

Lab Sample ID: 310-51636-2 DU — **Client Sample ID: MW-65**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 81522 — **Prep Batch: 81291**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	133		127.0		mg/L		4	20
Iron	4.53		4.337		mg/L		4	20
Magnesium	33.2		31.84		mg/L		4	20
Manganese	0.345		0.3344		mg/L		3	20
Potassium	2.21		2.181		mg/L		1	20
Sodium	48.9		46.70		mg/L		5	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 310-82212/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 82212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			04/01/15 15:07	1

Lab Sample ID: LCS 310-82212/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 82212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.99	4.684		mg/L		94	90 - 110

Lab Sample ID: 310-51636-2 MS — **Client Sample ID: MW-65**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 82212

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	3.81		4.99	8.785		mg/L		100	75 - 125

Lab Sample ID: 310-51636-2 MSD — **Client Sample ID: MW-65**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 82212

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	3.81		4.99	8.702		mg/L		98	75 - 125	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-81893/1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81893

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	1060	1078		mg/L		102	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 310-81247/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81247

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100		0.100		mg/L			03/25/15 14:20	1

Lab Sample ID: LCS 310-81247/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.4899		mg/L		98	90 - 110

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Method: SM 4500 NO3 E - Nitrogen, Nitrate

Lab Sample ID: MB 310-81243/5
Matrix: Water
Analysis Batch: 81243

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L			03/25/15 13:02	1

Lab Sample ID: LCS 310-81243/3
Matrix: Water
Analysis Batch: 81243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			0.290	0.2838		mg/L		98	90 - 110		

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 81155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-51636-2	MW-65	Total/NA	Ground Water	8260C	
LCS 310-81155/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-81155/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 81161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-51636-1	Trip Blank	Total/NA	Water	8260C	
310-51636-2	MW-65	Total/NA	Ground Water	8260C	
310-51636-3	Duplicate	Total/NA	Ground Water	8260C	
310-51636-4	MW-47D	Total/NA	Ground Water	8260C	
LCS 310-81161/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-81161/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 81164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-51636-3	Duplicate	Total/NA	Ground Water	8260C	
310-51636-4	MW-47D	Total/NA	Ground Water	8260C	
LCS 310-81164/4	Lab Control Sample	Total/NA	Water	8260C	
MB 310-81164/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 81910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-51636-2	MW-65	Total/NA	Ground Water	9056A	
310-51636-3	Duplicate	Total/NA	Ground Water	9056A	
310-51636-4	MW-47D	Total/NA	Ground Water	9056A	
LCS 310-81910/4	Lab Control Sample	Total/NA	Water	9056A	
MB 310-81910/3	Method Blank	Total/NA	Water	9056A	

Metals

Prep Batch: 81291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-51636-2	MW-65	Total/NA	Ground Water	3010A	
310-51636-2 DU	MW-65	Total/NA	Ground Water	3010A	
310-51636-3	Duplicate	Total/NA	Ground Water	3010A	
310-51636-4	MW-47D	Total/NA	Ground Water	3010A	
LCS 310-81291/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 310-81291/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 81522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-51636-2	MW-65	Total/NA	Ground Water	6010C	81291
310-51636-2 DU	MW-65	Total/NA	Ground Water	6010C	81291
310-51636-3	Duplicate	Total/NA	Ground Water	6010C	81291
310-51636-4	MW-47D	Total/NA	Ground Water	6010C	81291
LCS 310-81291/2-A	Lab Control Sample	Total/NA	Water	6010C	81291
MB 310-81291/1-A	Method Blank	Total/NA	Water	6010C	81291

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

General Chemistry

Analysis Batch: 81243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-51636-2	MW-65	Total/NA	Ground Water	SM 4500 NO3 E	
310-51636-3	Duplicate	Total/NA	Ground Water	SM 4500 NO3 E	
310-51636-4	MW-47D	Total/NA	Ground Water	SM 4500 NO3 E	
LCS 310-81243/3	Lab Control Sample	Total/NA	Water	SM 4500 NO3 E	
MB 310-81243/5	Method Blank	Total/NA	Water	SM 4500 NO3 E	

Analysis Batch: 81247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-51636-2	MW-65	Total/NA	Ground Water	SM 4500 NO2 B	
310-51636-3	Duplicate	Total/NA	Ground Water	SM 4500 NO2 B	
310-51636-4	MW-47D	Total/NA	Ground Water	SM 4500 NO2 B	
LCS 310-81247/2	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MB 310-81247/1	Method Blank	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 81893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-51636-2	MW-65	Total/NA	Ground Water	SM 2320B	
310-51636-3	Duplicate	Total/NA	Ground Water	SM 2320B	
310-51636-4	MW-47D	Total/NA	Ground Water	SM 2320B	
LCS 310-81893/1	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 82212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-51636-2	MW-65	Total/NA	Ground Water	9060A	
310-51636-2 MS	MW-65	Total/NA	Ground Water	9060A	
310-51636-2 MSD	MW-65	Total/NA	Ground Water	9060A	
310-51636-3	Duplicate	Total/NA	Ground Water	9060A	
310-51636-4	MW-47D	Total/NA	Ground Water	9060A	
LCS 310-82212/7	Lab Control Sample	Total/NA	Water	9060A	
MB 310-82212/5	Method Blank	Total/NA	Water	9060A	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: Trip Blank

Lab Sample ID: 310-51636-1
Date Collected: 03/24/15 00:00
Matrix: Water
Date Received: 03/24/15 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	81161	03/26/15 02:21	SJN	TAL CF

Client Sample ID: MW-65

Lab Sample ID: 310-51636-2
Date Collected: 03/24/15 10:40
Matrix: Ground Water
Date Received: 03/24/15 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	81155	03/26/15 10:25	SJN	TAL CF
Total/NA	Analysis	8260C		1	81161	03/26/15 07:50	SJN	TAL CF
Total/NA	Analysis	9056A		1	81910	03/30/15 10:01	JCM	TAL CF
Total/NA	Prep	3010A			81291	03/26/15 08:44	CJT	TAL CF
Total/NA	Analysis	6010C		1	81522	03/26/15 19:10	OAD	TAL CF
Total/NA	Analysis	9060A		1	82212	04/01/15 15:51	JCF	TAL CF
Total/NA	Analysis	SM 2320B		1	81893	03/31/15 12:19	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	81247	03/25/15 14:20	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	81243	03/25/15 13:26	MDK	TAL CF

Client Sample ID: Duplicate

Lab Sample ID: 310-51636-3
Date Collected: 03/24/15 11:10
Matrix: Ground Water
Date Received: 03/24/15 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	81161	03/26/15 08:12	SJN	TAL CF
Total/NA	Analysis	8260C		20	81164	03/26/15 12:16	SJN	TAL CF
Total/NA	Analysis	9056A		1	81910	03/30/15 10:01	JCM	TAL CF
Total/NA	Prep	3010A			81291	03/26/15 08:44	CJT	TAL CF
Total/NA	Analysis	6010C		1	81522	03/26/15 19:15	OAD	TAL CF
Total/NA	Analysis	9060A		1	82212	04/01/15 16:40	JCF	TAL CF
Total/NA	Analysis	SM 2320B		1	81893	03/31/15 12:19	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	81247	03/25/15 14:20	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	81243	03/25/15 13:28	MDK	TAL CF

Client Sample ID: MW-47D

Lab Sample ID: 310-51636-4
Date Collected: 03/24/15 12:25
Matrix: Ground Water
Date Received: 03/24/15 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	81161	03/26/15 08:34	SJN	TAL CF
Total/NA	Analysis	8260C		100	81164	03/26/15 12:38	SJN	TAL CF
Total/NA	Analysis	9056A		5	81910	03/30/15 10:01	JCM	TAL CF
Total/NA	Prep	3010A			81291	03/26/15 08:44	CJT	TAL CF

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Client Sample ID: MW-47D

Date Collected: 03/24/15 12:25
Date Received: 03/24/15 19:00

Lab Sample ID: 310-51636-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	81522	03/26/15 19:17	OAD	TAL CF
Total/NA	Analysis	9060A		1	82212	04/01/15 16:57	JCF	TAL CF
Total/NA	Analysis	SM 2320B		1	81893	03/31/15 12:19	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO2 B		1	81247	03/25/15 14:20	MDK	TAL CF
Total/NA	Analysis	SM 4500 NO3 E		1	81243	03/25/15 13:30	MDK	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-15
Illinois	NELAP	5	200024	11-29-15
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15 *
Minnesota	NELAP	5	019-999-319	12-31-15
North Dakota	State Program	8	R-186	09-29-15
Oregon	NELAP	10	IA100001	09-29-15
Wisconsin	State Program	5	999917270	08-31-15

* Certification renewal pending - certification considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-51636-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
9056A	Anions, Ion Chromatography	SW846	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
9060A	Organic Carbon, Total (TOC)	SW846	TAL CF
SM 2320B	Alkalinity	SM	TAL CF
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL CF
SM 4500 NO3 E	Nitrogen, Nitrate	SM	TAL CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 Enterprise Drive • Cedar Falls, IA 50613
Tel 319-277-2401 • Fax 319-277-2425

TestAmerica Sample Receipt and Temperature Log Form
Cedar Falls Facility

310-51636 Chain of Custody

Client: Golder Associates Project: _____

City: Manchester State: New Hampshire

Date: 03/24/14 Receiver's Initials: PC Time (Delivered): 1900

Temperature Record:

Cooler ID# (If Applicable): T-7

Uncorrected Temp: 2.8 °C

Corrected Temp: 2.7 °C

Thermometer:

- [ ] IR "E" - 111531506
- [ ] IR "Front" - 61854108
- [ ] IR "G" - 130195822
- [x] IR "H" - 130195853
- [ ] Other:

Courier:

- [ ] UPS
- [ ] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [x] TA Courier
- [ ] TA Field Services
- [ ] Client
- [ ] Other: _____

- [x] Temperature blank
- [ ] Temperature out of compliance

Coolant Record:

- [x] Received on ice
  - [x] Wet ice
  - [ ] Blue ice
  - [ ] Dry ice
  - [ ] Other: _____
- [ ] NONE

Exceptions Noted:

- [ ] Sample(s) not received in cooler
- [ ] Sample(s) received same day of sampling
  - [ ] Evidence of chilling process
- [ ] Temp blank <0°C, samples NOT FROZEN
- [ ] Temp blank <0°C, samples FROZEN
- [ ] Temperature not taken: *(indicate reason)* _____
- [ ] Non-Conformance Report Started

Custody Seals:

Cooler Custody Seals Present? [ ] Yes [x] No

Cooler Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Sample Custody Seals Present? [ ] Yes [x] No

Sample Custody Seals Intact? [ ] Yes [ ] No [x] N/A

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Send Report To: James Peace
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Telephone Number: 603-668-0880 Fax: 603-668-1199
Sampled by: (Print Name) Alan Phillips (AP)
(Signature) Alan Phillips

Your PO #:
Invoice To:
Project Name: Electrolux - Jefferson, IA
Project Number: 103-87305
Email Address: jim_peace@golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:Stormwater	Analyze For: 8260 Volatiles	Nitrate, Nitrite	Sulfate, Chloride	Alkalinities	Ca, Na, K, Mg, Mn, Fe	TOC							E-mail results	Send QC with report
Trip Blank			3	X					3												X													
MW-65	3/24/15	1040	6	X				1	3		1		1		X						X	X	X	X	X	X								
Duplicate	3/24/15	1110	6	X				1	3		1		1		X						X	X	X	X	X	X								
MW-47D	3/24/15	1225	6	X				1	3		1		1		X						X	X	X	X	X	X								

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Alan Phillips	3/24/15	1643	[illegible]	3/24/15	1643			
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
[illegible]	03/24/15	1900						

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MW-65	310-51636-D-2	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-65	310-51636-E-2	Plastic 250ml - with Nitric Acid	<2	_____	_____
Duplicate	310-51636-D-3	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
Duplicate	310-51636-E-3	Plastic 250ml - with Nitric Acid	<2	_____	_____
MW-47D	310-51636-D-4	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MW-47D	310-51636-E-4	Plastic 250ml - with Nitric Acid	<2	_____	_____

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-51636-1
SDG Number: 103-87305

Login Number: 51636
List Number: 1
Creator: Wilson, Cheryl L

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-68678-1
TestAmerica Sample Delivery Group: 103-87305
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Authorized for release by:
11/19/2015 1:49:34 PM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-68678-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-68678-1

Comments
No additional comments.

Receipt
The samples were received on 11/10/2015 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-68678-1	MW-67	Ground Water	11/09/15 15:55	11/11/15 17:45
310-68678-2	MW-66	Ground Water	11/09/15 16:55	11/11/15 17:45
310-68678-3	Dup	Ground Water	11/09/15 00:00	11/11/15 17:45
310-68678-4	Trip Blank	Water	11/09/15 00:00	11/11/15 17:45

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Client Sample ID: MW-67 — Lab Sample ID: 310-68678-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.16		1.00		ug/L	1		8260C	Total/NA

Client Sample ID: MW-66 — Lab Sample ID: 310-68678-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	3.94		1.00		ug/L	1		8260C	Total/NA

Client Sample ID: Dup — Lab Sample ID: 310-68678-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.05		1.00		ug/L	1		8260C	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-68678-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Client Sample ID: MW-67

Date Collected: 11/09/15 15:55
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/18/15 21:42	1
Benzene	<0.500		0.500		ug/L			11/18/15 21:42	1
Bromobenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
Bromochloromethane	<5.00		5.00		ug/L			11/18/15 21:42	1
Bromodichloromethane	<1.00		1.00		ug/L			11/18/15 21:42	1
Bromoform	<5.00		5.00		ug/L			11/18/15 21:42	1
Bromomethane	<4.00		4.00		ug/L			11/18/15 21:42	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/18/15 21:42	1
n-Butylbenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
Carbon disulfide	<1.00		1.00		ug/L			11/18/15 21:42	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/18/15 21:42	1
Chlorobenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/18/15 21:42	1
Chloroethane	<4.00		4.00		ug/L			11/18/15 21:42	1
Chloroform	**2.16**		1.00		ug/L			11/18/15 21:42	1
Chloromethane	<3.00		3.00		ug/L			11/18/15 21:42	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/18/15 21:42	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/18/15 21:42	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			11/18/15 21:42	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			11/18/15 21:42	1
Dibromomethane	<1.00		1.00		ug/L			11/18/15 21:42	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/18/15 21:42	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/18/15 21:42	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/18/15 21:42	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/18/15 21:42	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/18/15 21:42	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/18/15 21:42	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/18/15 21:42	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/18/15 21:42	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/18/15 21:42	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/18/15 21:42	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/18/15 21:42	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/18/15 21:42	1
Ethylbenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/18/15 21:42	1
Hexane	<1.00		1.00		ug/L			11/18/15 21:42	1
Isopropylbenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/18/15 21:42	1
Methylene Chloride	<5.00		5.00		ug/L			11/18/15 21:42	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/18/15 21:42	1
Naphthalene	<5.00		5.00		ug/L			11/18/15 21:42	1
N-Propylbenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
Styrene	<1.00		1.00		ug/L			11/18/15 21:42	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/18/15 21:42	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Client Sample ID: MW-67

Date Collected: 11/09/15 15:55
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-1

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/18/15 21:42	1
Tetrachloroethene	<1.00		1.00		ug/L			11/18/15 21:42	1
Toluene	<1.00		1.00		ug/L			11/18/15 21:42	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/18/15 21:42	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/18/15 21:42	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/18/15 21:42	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/18/15 21:42	1
Trichloroethene	<1.00		1.00		ug/L			11/18/15 21:42	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/18/15 21:42	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/18/15 21:42	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/18/15 21:42	1
Vinyl chloride	<1.00		1.00		ug/L			11/18/15 21:42	1
Xylenes, Total	<3.00		3.00		ug/L			11/18/15 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*11/18/15 21:42*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*11/18/15 21:42*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/18/15 21:42*	*1*

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Client Sample ID: MW-66

Date Collected: 11/09/15 16:55
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/18/15 22:03	1
Benzene	<0.500		0.500		ug/L			11/18/15 22:03	1
Bromobenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
Bromochloromethane	<5.00		5.00		ug/L			11/18/15 22:03	1
Bromodichloromethane	<1.00		1.00		ug/L			11/18/15 22:03	1
Bromoform	<5.00		5.00		ug/L			11/18/15 22:03	1
Bromomethane	<4.00		4.00		ug/L			11/18/15 22:03	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/18/15 22:03	1
n-Butylbenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
Carbon disulfide	<1.00		1.00		ug/L			11/18/15 22:03	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/18/15 22:03	1
Chlorobenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/18/15 22:03	1
Chloroethane	<4.00		4.00		ug/L			11/18/15 22:03	1
Chloroform	<1.00		1.00		ug/L			11/18/15 22:03	1
Chloromethane	<3.00		3.00		ug/L			11/18/15 22:03	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/18/15 22:03	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/18/15 22:03	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			11/18/15 22:03	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			11/18/15 22:03	1
Dibromomethane	<1.00		1.00		ug/L			11/18/15 22:03	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/18/15 22:03	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/18/15 22:03	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/18/15 22:03	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/18/15 22:03	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/18/15 22:03	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/18/15 22:03	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/18/15 22:03	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/18/15 22:03	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/18/15 22:03	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/18/15 22:03	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/18/15 22:03	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/18/15 22:03	1
Ethylbenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/18/15 22:03	1
Hexane	<1.00		1.00		ug/L			11/18/15 22:03	1
Isopropylbenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/18/15 22:03	1
Methylene Chloride	<5.00		5.00		ug/L			11/18/15 22:03	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/18/15 22:03	1
Naphthalene	<5.00		5.00		ug/L			11/18/15 22:03	1
N-Propylbenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
Styrene	<1.00		1.00		ug/L			11/18/15 22:03	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/18/15 22:03	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Client Sample ID: MW-66

Date Collected: 11/09/15 16:55
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-2

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/18/15 22:03	1
Tetrachloroethene	<1.00		1.00		ug/L			11/18/15 22:03	1
Toluene	<1.00		1.00		ug/L			11/18/15 22:03	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/18/15 22:03	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/18/15 22:03	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/18/15 22:03	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/18/15 22:03	1
Trichloroethene	**3.94**		1.00		ug/L			11/18/15 22:03	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/18/15 22:03	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/18/15 22:03	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/18/15 22:03	1
Vinyl chloride	<1.00		1.00		ug/L			11/18/15 22:03	1
Xylenes, Total	<3.00		3.00		ug/L			11/18/15 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*11/18/15 22:03*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 120*		*11/18/15 22:03*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/18/15 22:03*	*1*

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Client Sample ID: Dup

Date Collected: 11/09/15 00:00
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/18/15 22:25	1
Benzene	<0.500		0.500		ug/L			11/18/15 22:25	1
Bromobenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
Bromochloromethane	<5.00		5.00		ug/L			11/18/15 22:25	1
Bromodichloromethane	<1.00		1.00		ug/L			11/18/15 22:25	1
Bromoform	<5.00		5.00		ug/L			11/18/15 22:25	1
Bromomethane	<4.00		4.00		ug/L			11/18/15 22:25	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/18/15 22:25	1
n-Butylbenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
Carbon disulfide	<1.00		1.00		ug/L			11/18/15 22:25	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/18/15 22:25	1
Chlorobenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/18/15 22:25	1
Chloroethane	<4.00		4.00		ug/L			11/18/15 22:25	1
Chloroform	**2.05**		1.00		ug/L			11/18/15 22:25	1
Chloromethane	<3.00		3.00		ug/L			11/18/15 22:25	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/18/15 22:25	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/18/15 22:25	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			11/18/15 22:25	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			11/18/15 22:25	1
Dibromomethane	<1.00		1.00		ug/L			11/18/15 22:25	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/18/15 22:25	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/18/15 22:25	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/18/15 22:25	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/18/15 22:25	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/18/15 22:25	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/18/15 22:25	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/18/15 22:25	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/18/15 22:25	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/18/15 22:25	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/18/15 22:25	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/18/15 22:25	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/18/15 22:25	1
Ethylbenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/18/15 22:25	1
Hexane	<1.00		1.00		ug/L			11/18/15 22:25	1
Isopropylbenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/18/15 22:25	1
Methylene Chloride	<5.00		5.00		ug/L			11/18/15 22:25	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/18/15 22:25	1
Naphthalene	<5.00		5.00		ug/L			11/18/15 22:25	1
N-Propylbenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
Styrene	<1.00		1.00		ug/L			11/18/15 22:25	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/18/15 22:25	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Client Sample ID: Dup

Date Collected: 11/09/15 00:00
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-3

Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/18/15 22:25	1
Tetrachloroethene	<1.00		1.00		ug/L			11/18/15 22:25	1
Toluene	<1.00		1.00		ug/L			11/18/15 22:25	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/18/15 22:25	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/18/15 22:25	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/18/15 22:25	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/18/15 22:25	1
Trichloroethene	<1.00		1.00		ug/L			11/18/15 22:25	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/18/15 22:25	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/18/15 22:25	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/18/15 22:25	1
Vinyl chloride	<1.00		1.00		ug/L			11/18/15 22:25	1
Xylenes, Total	<3.00		3.00		ug/L			11/18/15 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*		*11/18/15 22:25*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 120*		*11/18/15 22:25*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/18/15 22:25*	*1*

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Client Sample ID: Trip Blank

Date Collected: 11/09/15 00:00
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/18/15 18:27	1
Benzene	<0.500		0.500		ug/L			11/18/15 18:27	1
Bromobenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
Bromochloromethane	<5.00		5.00		ug/L			11/18/15 18:27	1
Bromodichloromethane	<1.00		1.00		ug/L			11/18/15 18:27	1
Bromoform	<5.00		5.00		ug/L			11/18/15 18:27	1
Bromomethane	<4.00		4.00		ug/L			11/18/15 18:27	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/18/15 18:27	1
n-Butylbenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
Carbon disulfide	<1.00		1.00		ug/L			11/18/15 18:27	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/18/15 18:27	1
Chlorobenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/18/15 18:27	1
Chloroethane	<4.00		4.00		ug/L			11/18/15 18:27	1
Chloroform	<1.00		1.00		ug/L			11/18/15 18:27	1
Chloromethane	<3.00		3.00		ug/L			11/18/15 18:27	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/18/15 18:27	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/18/15 18:27	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			11/18/15 18:27	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			11/18/15 18:27	1
Dibromomethane	<1.00		1.00		ug/L			11/18/15 18:27	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/18/15 18:27	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/18/15 18:27	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/18/15 18:27	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/18/15 18:27	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/18/15 18:27	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/18/15 18:27	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/18/15 18:27	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/18/15 18:27	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/18/15 18:27	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/18/15 18:27	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/18/15 18:27	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/18/15 18:27	1
Ethylbenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/18/15 18:27	1
Hexane	<1.00		1.00		ug/L			11/18/15 18:27	1
Isopropylbenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/18/15 18:27	1
Methylene Chloride	<5.00		5.00		ug/L			11/18/15 18:27	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/18/15 18:27	1
Naphthalene	<5.00		5.00		ug/L			11/18/15 18:27	1
N-Propylbenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
Styrene	<1.00		1.00		ug/L			11/18/15 18:27	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/18/15 18:27	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Client Sample ID: Trip Blank

Date Collected: 11/09/15 00:00
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/18/15 18:27	1
Tetrachloroethene	<1.00		1.00		ug/L			11/18/15 18:27	1
Toluene	<1.00		1.00		ug/L			11/18/15 18:27	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/18/15 18:27	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/18/15 18:27	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/18/15 18:27	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/18/15 18:27	1
Trichloroethene	<1.00		1.00		ug/L			11/18/15 18:27	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/18/15 18:27	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/18/15 18:27	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/18/15 18:27	1
Vinyl chloride	<1.00		1.00		ug/L			11/18/15 18:27	1
Xylenes, Total	<3.00		3.00		ug/L			11/18/15 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*75 - 120*		*11/18/15 18:27*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 120*		*11/18/15 18:27*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/18/15 18:27*	*1*

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-68678-1	MW-67	103	100	98
310-68678-1 MS	MW-67	100	99	101
310-68678-1 MSD	MW-67	98	100	97
310-68678-2	MW-66	100	96	96
310-68678-3	Dup	106	100	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-120)	(75-120)	(80-120)
310-68678-4	Trip Blank	105	99	100
LCS 310-109142/5	Lab Control Sample	100	101	97
MB 310-109142/7	Method Blank	100	103	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-109142/7
Matrix: Water
Analysis Batch: 109142

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/18/15 17:00	1
Benzene	<0.500		0.500		ug/L			11/18/15 17:00	1
Bromobenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
Bromochloromethane	<5.00		5.00		ug/L			11/18/15 17:00	1
Bromodichloromethane	<1.00		1.00		ug/L			11/18/15 17:00	1
Bromoform	<5.00		5.00		ug/L			11/18/15 17:00	1
Bromomethane	<4.00		4.00		ug/L			11/18/15 17:00	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/18/15 17:00	1
n-Butylbenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
Carbon disulfide	<1.00		1.00		ug/L			11/18/15 17:00	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/18/15 17:00	1
Chlorobenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/18/15 17:00	1
Chloroethane	<4.00		4.00		ug/L			11/18/15 17:00	1
Chloroform	<1.00		1.00		ug/L			11/18/15 17:00	1
Chloromethane	<3.00		3.00		ug/L			11/18/15 17:00	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/18/15 17:00	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/18/15 17:00	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			11/18/15 17:00	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			11/18/15 17:00	1
Dibromomethane	<1.00		1.00		ug/L			11/18/15 17:00	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/18/15 17:00	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/18/15 17:00	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/18/15 17:00	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/18/15 17:00	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/18/15 17:00	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/18/15 17:00	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/18/15 17:00	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/18/15 17:00	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/18/15 17:00	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/18/15 17:00	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/18/15 17:00	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/18/15 17:00	1
Ethylbenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/18/15 17:00	1
Hexane	<1.00		1.00		ug/L			11/18/15 17:00	1
Isopropylbenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/18/15 17:00	1
Methylene Chloride	<5.00		5.00		ug/L			11/18/15 17:00	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/18/15 17:00	1
Naphthalene	<5.00		5.00		ug/L			11/18/15 17:00	1
N-Propylbenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
Styrene	<1.00		1.00		ug/L			11/18/15 17:00	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-109142/7
Matrix: Water
Analysis Batch: 109142

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/18/15 17:00	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/18/15 17:00	1
Tetrachloroethene	<1.00		1.00		ug/L			11/18/15 17:00	1
Toluene	<1.00		1.00		ug/L			11/18/15 17:00	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/18/15 17:00	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/18/15 17:00	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/18/15 17:00	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/18/15 17:00	1
Trichloroethene	<1.00		1.00		ug/L			11/18/15 17:00	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/18/15 17:00	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/18/15 17:00	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/18/15 17:00	1
Vinyl chloride	<1.00		1.00		ug/L			11/18/15 17:00	1
Xylenes, Total	<3.00		3.00		ug/L			11/18/15 17:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*11/18/15 17:00*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*11/18/15 17:00*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*11/18/15 17:00*	*1*

Lab Sample ID: LCS 310-109142/5
Matrix: Water
Analysis Batch: 109142

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	30.66		ug/L		77	60 - 150
Benzene	20.0	19.29		ug/L		96	70 - 130
Bromobenzene	20.0	18.12		ug/L		91	75 - 130
Bromochloromethane	20.0	19.15		ug/L		96	65 - 145
Bromodichloromethane	20.0	15.86		ug/L		79	60 - 130
Bromoform	20.0	13.55		ug/L		68	30 - 125
2-Butanone (MEK)	40.0	36.43		ug/L		91	55 - 140
n-Butylbenzene	20.0	18.41		ug/L		92	55 - 135
sec-Butylbenzene	20.0	18.75		ug/L		94	65 - 135
tert-Butylbenzene	20.0	18.80		ug/L		94	60 - 135
Carbon disulfide	20.0	20.04		ug/L		100	40 - 130
Carbon tetrachloride	20.0	19.26		ug/L		96	55 - 130
Chlorobenzene	20.0	19.07		ug/L		95	75 - 125
Chlorodibromomethane	20.0	15.51		ug/L		78	45 - 125
Chloroform	20.0	19.07		ug/L		95	70 - 125
2-Chlorotoluene	20.0	18.59		ug/L		93	75 - 135
4-Chlorotoluene	20.0	18.00		ug/L		90	70 - 140
1,2-Dibromo-3-Chloropropane	20.0	13.83		ug/L		69	35 - 130
1,2-Dibromoethane (EDB)	20.0	18.28		ug/L		91	70 - 135
Dibromomethane	20.0	17.62		ug/L		88	75 - 130
1,2-Dichlorobenzene	20.0	18.74		ug/L		94	65 - 135
1,3-Dichlorobenzene	20.0	18.09		ug/L		90	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-109142/5
Matrix: Water
Analysis Batch: 109142

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	20.0	18.34		ug/L		92	60 - 140
1,1-Dichloroethane	20.0	19.80		ug/L		99	60 - 130
1,2-Dichloroethane	20.0	19.57		ug/L		98	65 - 140
1,1-Dichloroethene	20.0	21.35		ug/L		107	60 - 135
cis-1,2-Dichloroethene	20.0	19.74		ug/L		99	70 - 135
trans-1,2-Dichloroethene	20.0	20.29		ug/L		101	60 - 145
1,2-Dichloropropane	20.0	18.83		ug/L		94	65 - 130
1,3-Dichloropropane	20.0	18.67		ug/L		93	75 - 125
2,2-Dichloropropane	20.0	21.55		ug/L		108	25 - 120
1,1-Dichloropropene	20.0	20.45		ug/L		102	60 - 140
cis-1,3-Dichloropropene	20.0	17.19		ug/L		86	30 - 120
trans-1,3-Dichloropropene	20.0	16.09		ug/L		80	35 - 120
Ethylbenzene	20.0	18.67		ug/L		93	70 - 130
Hexachlorobutadiene	20.0	20.10		ug/L		100	60 - 135
Hexane	20.0	20.94		ug/L		105	40 - 135
Isopropylbenzene	20.0	18.48		ug/L		92	70 - 125
p-Isopropyltoluene	20.0	19.31		ug/L		97	60 - 140
Methylene Chloride	20.0	20.45		ug/L		102	55 - 145
Methyl tert-butyl ether	20.0	18.60		ug/L		93	50 - 135
Naphthalene	20.0	18.41		ug/L		92	40 - 135
N-Propylbenzene	20.0	19.00		ug/L		95	70 - 135
Styrene	20.0	18.38		ug/L		92	70 - 130
1,1,1,2-Tetrachloroethane	20.0	17.22		ug/L		86	65 - 120
1,1,2,2-Tetrachloroethane	20.0	17.14		ug/L		86	65 - 130
Tetrachloroethene	20.0	19.51		ug/L		98	70 - 135
Toluene	20.0	19.87		ug/L		99	70 - 135
1,2,3-Trichlorobenzene	20.0	17.88		ug/L		89	55 - 130
1,2,4-Trichlorobenzene	20.0	18.28		ug/L		91	40 - 135
1,1,1-Trichloroethane	20.0	20.40		ug/L		102	60 - 125
1,1,2-Trichloroethane	20.0	18.12		ug/L		91	75 - 125
Trichloroethene	20.0	19.23		ug/L		96	70 - 130
1,2,3-Trichloropropane	20.0	16.59		ug/L		83	60 - 150
1,2,4-Trimethylbenzene	20.0	18.49		ug/L		92	70 - 140
1,3,5-Trimethylbenzene	20.0	18.37		ug/L		92	70 - 140
Xylenes, Total	40.0	38.02		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: 310-68678-1 MS
Matrix: Ground Water
Analysis Batch: 109142

Client Sample ID: MW-67
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<10.0		40.0	32.80		ug/L		82	45 - 150
Benzene	<0.500		20.0	20.90		ug/L		105	50 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-68678-1 MS
Matrix: Ground Water
Analysis Batch: 109142

Client Sample ID: MW-67
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	<1.00		20.0	18.12		ug/L		91	60 - 135
Bromochloromethane	<5.00		20.0	23.24		ug/L		116	55 - 145
Bromodichloromethane	<1.00		20.0	17.69		ug/L		88	50 - 130
Bromoform	<5.00		20.0	12.69		ug/L		63	30 - 125
2-Butanone (MEK)	<10.0		40.0	37.45		ug/L		94	45 - 140
n-Butylbenzene	<1.00		20.0	18.14		ug/L		91	40 - 135
sec-Butylbenzene	<1.00		20.0	18.57		ug/L		93	40 - 135
tert-Butylbenzene	<1.00		20.0	18.66		ug/L		93	40 - 135
Carbon disulfide	<1.00		20.0	21.96		ug/L		110	30 - 130
Carbon tetrachloride	<2.00		20.0	19.18		ug/L		96	35 - 130
Chlorobenzene	<1.00		20.0	19.68		ug/L		98	60 - 130
Chlorodibromomethane	<5.00		20.0	16.50		ug/L		82	35 - 130
Chloroform	2.16		20.0	24.10		ug/L		110	55 - 125
2-Chlorotoluene	<1.00		20.0	18.55		ug/L		93	55 - 140
4-Chlorotoluene	<1.00		20.0	18.04		ug/L		90	50 - 140
1,2-Dibromo-3-Chloropropane	<10.0		20.0	15.40		ug/L		77	35 - 130
1,2-Dibromoethane (EDB)	<10.0		20.0	18.15		ug/L		91	55 - 140
Dibromomethane	<1.00		20.0	18.15		ug/L		91	60 - 135
1,2-Dichlorobenzene	<1.00		20.0	19.16		ug/L		96	55 - 140
1,3-Dichlorobenzene	<1.00		20.0	18.30		ug/L		91	55 - 135
1,4-Dichlorobenzene	<1.00		20.0	18.74		ug/L		94	55 - 140
1,1-Dichloroethane	<1.00		20.0	20.13		ug/L		101	50 - 130
1,2-Dichloroethane	<1.00		20.0	20.80		ug/L		104	55 - 140
1,1-Dichloroethene	<2.00		20.0	22.24		ug/L		111	35 - 135
cis-1,2-Dichloroethene	<1.00		20.0	21.09		ug/L		104	45 - 135
trans-1,2-Dichloroethene	<1.00		20.0	21.86		ug/L		109	45 - 145
1,2-Dichloropropane	<1.00		20.0	20.62		ug/L		103	55 - 130
1,3-Dichloropropane	<1.00		20.0	19.49		ug/L		97	60 - 135
2,2-Dichloropropane	<4.00		20.0	21.22		ug/L		106	20 - 120
1,1-Dichloropropene	<1.00		20.0	20.86		ug/L		104	40 - 140
cis-1,3-Dichloropropene	<5.00		20.0	19.57		ug/L		98	25 - 120
trans-1,3-Dichloropropene	<5.00		20.0	17.26		ug/L		86	25 - 120
Ethylbenzene	<1.00		20.0	19.24		ug/L		96	45 - 135
Hexachlorobutadiene	<5.00		20.0	19.80		ug/L		99	40 - 135
Hexane	<1.00		20.0	18.65		ug/L		93	25 - 135
Isopropylbenzene	<1.00		20.0	18.64		ug/L		93	45 - 125
p-Isopropyltoluene	<1.00		20.0	18.62		ug/L		93	40 - 140
Methylene Chloride	<5.00		20.0	20.76		ug/L		104	45 - 145
Methyl tert-butyl ether	<1.00		20.0	18.95		ug/L		95	40 - 135
Naphthalene	<5.00		20.0	18.47		ug/L		92	40 - 135
N-Propylbenzene	<1.00		20.0	18.79		ug/L		94	45 - 140
Styrene	<1.00		20.0	18.75		ug/L		94	40 - 135
1,1,1,2-Tetrachloroethane	<1.00		20.0	17.36		ug/L		87	50 - 130
1,1,2,2-Tetrachloroethane	<1.00		20.0	16.96		ug/L		85	55 - 140
Tetrachloroethene	<1.00		20.0	17.97		ug/L		90	40 - 135
Toluene	<1.00		20.0	20.71		ug/L		104	45 - 135
1,2,3-Trichlorobenzene	<5.00		20.0	19.10		ug/L		95	50 - 140
1,2,4-Trichlorobenzene	<5.00		20.0	18.77		ug/L		94	40 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-68678-1 MS
Matrix: Ground Water
Analysis Batch: 109142

Client Sample ID: MW-67
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	<1.00		20.0	20.78		ug/L		104	40 - 125
1,1,2-Trichloroethane	<1.00		20.0	18.78		ug/L		94	60 - 130
Trichloroethene	<1.00		20.0	20.55		ug/L		103	50 - 130
1,2,3-Trichloropropane	<1.00		20.0	18.04		ug/L		90	55 - 150
1,2,4-Trimethylbenzene	<1.00		20.0	18.11		ug/L		91	45 - 140
1,3,5-Trimethylbenzene	<1.00		20.0	18.71		ug/L		94	45 - 140
Xylenes, Total	<3.00		40.0	38.42		ug/L		96	40 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 310-68678-1 MSD
Matrix: Ground Water
Analysis Batch: 109142

Client Sample ID: MW-67
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	<10.0		40.0	31.50		ug/L		79	45 - 150	4	20
Benzene	<0.500		20.0	19.77		ug/L		99	50 - 130	6	20
Bromobenzene	<1.00		20.0	17.41		ug/L		87	60 - 135	4	20
Bromochloromethane	<5.00		20.0	19.68		ug/L		98	55 - 145	17	20
Bromodichloromethane	<1.00		20.0	17.23		ug/L		86	50 - 130	3	20
Bromoform	<5.00		20.0	13.14		ug/L		66	30 - 125	3	20
2-Butanone (MEK)	<10.0		40.0	34.73		ug/L		87	45 - 140	8	20
n-Butylbenzene	<1.00		20.0	17.23		ug/L		86	40 - 135	5	20
sec-Butylbenzene	<1.00		20.0	17.21		ug/L		86	40 - 135	8	15
tert-Butylbenzene	<1.00		20.0	18.17		ug/L		91	40 - 135	3	15
Carbon disulfide	<1.00		20.0	18.78		ug/L		94	30 - 130	16	20
Carbon tetrachloride	<2.00		20.0	18.42		ug/L		92	35 - 130	4	20
Chlorobenzene	<1.00		20.0	18.26		ug/L		91	60 - 130	7	20
Chlorodibromomethane	<5.00		20.0	15.36		ug/L		77	35 - 130	7	20
Chloroform	2.16		20.0	22.33		ug/L		101	55 - 125	8	20
2-Chlorotoluene	<1.00		20.0	17.81		ug/L		89	55 - 140	4	20
4-Chlorotoluene	<1.00		20.0	17.56		ug/L		88	50 - 140	3	20
1,2-Dibromo-3-Chloropropane	<10.0		20.0	15.86		ug/L		79	35 - 130	3	20
1,2-Dibromoethane (EDB)	<10.0		20.0	18.08		ug/L		90	55 - 140	0	20
Dibromomethane	<1.00		20.0	17.91		ug/L		90	60 - 135	1	20
1,2-Dichlorobenzene	<1.00		20.0	18.56		ug/L		93	55 - 140	3	20
1,3-Dichlorobenzene	<1.00		20.0	17.71		ug/L		89	55 - 135	3	20
1,4-Dichlorobenzene	<1.00		20.0	18.28		ug/L		91	55 - 140	2	20
1,1-Dichloroethane	<1.00		20.0	19.98		ug/L		100	50 - 130	1	20
1,2-Dichloroethane	<1.00		20.0	18.21		ug/L		91	55 - 140	13	20
1,1-Dichloroethene	<2.00		20.0	20.59		ug/L		103	35 - 135	8	20
cis-1,2-Dichloroethene	<1.00		20.0	18.97		ug/L		93	45 - 135	11	20
trans-1,2-Dichloroethene	<1.00		20.0	19.14		ug/L		96	45 - 145	13	20
1,2-Dichloropropane	<1.00		20.0	18.17		ug/L		91	55 - 130	13	20
1,3-Dichloropropane	<1.00		20.0	18.74		ug/L		94	60 - 135	4	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-68678-1 MSD
Matrix: Ground Water
Analysis Batch: 109142

Client Sample ID: MW-67
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,2-Dichloropropane	<4.00		20.0	19.69		ug/L		98	20 - 120	7	20
1,1-Dichloropropene	<1.00		20.0	18.87		ug/L		94	40 - 140	10	20
cis-1,3-Dichloropropene	<5.00		20.0	16.92		ug/L		85	25 - 120	15	20
trans-1,3-Dichloropropene	<5.00		20.0	15.94		ug/L		80	25 - 120	8	20
Ethylbenzene	<1.00		20.0	18.26		ug/L		91	45 - 135	5	20
Hexachlorobutadiene	<5.00		20.0	17.78		ug/L		89	40 - 135	11	20
Hexane	<1.00		20.0	17.36		ug/L		87	25 - 135	7	20
Isopropylbenzene	<1.00		20.0	17.95		ug/L		90	45 - 125	4	20
p-Isopropyltoluene	<1.00		20.0	18.26		ug/L		91	40 - 140	2	20
Methylene Chloride	<5.00		20.0	20.25		ug/L		101	45 - 145	3	20
Methyl tert-butyl ether	<1.00		20.0	17.86		ug/L		89	40 - 135	6	20
Naphthalene	<5.00		20.0	17.97		ug/L		90	40 - 135	3	20
N-Propylbenzene	<1.00		20.0	18.05		ug/L		90	45 - 140	4	20
Styrene	<1.00		20.0	17.71		ug/L		89	40 - 135	6	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	18.12		ug/L		91	50 - 130	4	20
1,1,2,2-Tetrachloroethane	<1.00		20.0	16.70		ug/L		84	55 - 140	2	20
Tetrachloroethene	<1.00		20.0	17.01		ug/L		85	40 - 135	5	20
Toluene	<1.00		20.0	19.51		ug/L		98	45 - 135	6	20
1,2,3-Trichlorobenzene	<5.00		20.0	19.00		ug/L		95	50 - 140	1	20
1,2,4-Trichlorobenzene	<5.00		20.0	18.92		ug/L		95	40 - 135	1	20
1,1,1-Trichloroethane	<1.00		20.0	19.91		ug/L		100	40 - 125	4	20
1,1,2-Trichloroethane	<1.00		20.0	18.92		ug/L		95	60 - 130	1	20
Trichloroethene	<1.00		20.0	18.87		ug/L		94	50 - 130	8	20
1,2,3-Trichloropropane	<1.00		20.0	17.25		ug/L		86	55 - 150	4	20
1,2,4-Trimethylbenzene	<1.00		20.0	17.98		ug/L		90	45 - 140	1	20
1,3,5-Trimethylbenzene	<1.00		20.0	17.34		ug/L		87	45 - 140	8	20
Xylenes, Total	<3.00		40.0	36.60		ug/L		92	40 - 135	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

GC/MS VOA

Analysis Batch: 109142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-68678-1	MW-67	Total/NA	Ground Water	8260C	
310-68678-1 MS	MW-67	Total/NA	Ground Water	8260C	
310-68678-1 MSD	MW-67	Total/NA	Ground Water	8260C	
310-68678-2	MW-66	Total/NA	Ground Water	8260C	
310-68678-3	Dup	Total/NA	Ground Water	8260C	
310-68678-4	Trip Blank	Total/NA	Water	8260C	
LCS 310-109142/5	Lab Control Sample	Total/NA	Water	8260C	
MB 310-109142/7	Method Blank	Total/NA	Water	8260C	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Client Sample ID: MW-67
Date Collected: 11/09/15 15:55
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	109142	11/18/15 21:42	SJN	TAL CF

Client Sample ID: MW-66
Date Collected: 11/09/15 16:55
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	109142	11/18/15 22:03	SJN	TAL CF

Client Sample ID: Dup
Date Collected: 11/09/15 00:00
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	109142	11/18/15 22:25	SJN	TAL CF

Client Sample ID: Trip Blank
Date Collected: 11/09/15 00:00
Date Received: 11/11/15 17:45

Lab Sample ID: 310-68678-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	109142	11/18/15 18:27	SJN	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-16
Illinois	NELAP	5	200024	11-29-15 *
Iowa	State Program	7	007	12-01-15 *
Kansas	NELAP	7	E-10341	01-31-15 *
Minnesota	NELAP	5	019-999-319	12-31-15
Minnesota (Petrofund)	State Program	1	3349	08-22-16
North Dakota	State Program	8	R-186	09-29-16
Oregon	NELAP	10	IA100001	09-29-16
Wisconsin	State Program	5	999917270	08-31-16

* Certification renewal pending - certification considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-68678-1
SDG: 103-87305

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

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310-68672 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Golder Associates

City/State: Manchester NH | Project:

Receipt Information

Date/Time Received: 11/10/15 1745 | Received By: PC

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ TA Courier ☐ TA Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes ☐ No	*If yes:* Cooler ID:	A-5
Multiple Coolers?	☐ Yes ☒ No	*If yes:* Cooler # _____ of _____	
Cooler Custody Seals Present?	☐ Yes ☒ No	*If yes:* Cooler custody seals intact?	☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☒ No	*If yes:* Sample custody seals intact?	☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☐ No	*If yes:* Which VOA samples are in cooler? ↓	

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Temperature Blank? ☒ Yes ☐ No ID & Bottle Type:

NOTE: If yes, use temp blank for measurement. If no, specify sample ID(s) and bottle type used to take measurement.

Thermometer ID:	G	Correction Factor (°C):	+0.1
Uncorrected Temp (°C):	3.0	Corrected Temp (°C):	3.1

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: Golder Associates
Your PO #: 103-87305
Send Report To: James Peace
Invoice To:
Address: 670 North Commercial Street, Suite 103
City/State/Zip Code: Manchester, New Hampshire 03101
Project Name: Electrolux - Jefferson, IA
Telephone Number: 603-668-0880 Fax: 603-668-1199
Project Number: 103-87305
Sampled by: (Print Name) Bobby Abernathy
(Signature)
Email Address: James Peace @ Golder.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H2SO4 Plastic (Yellow & White Label)	H2SO4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:Stormwater	Analyze For: 8260 Volatiles												E-mail results	Send QC with report
MW-67	11/9/15	1555	3	X			X								X						X														
MW-66	11/9/15	1655	3	X			X								X						X														
DUP	11/9/15	—	3	X			X								X						X														
Trip Blank			3																																

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	11/10/15	1015		11/10/15	1015			
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	11/10/15	1745						

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-68678-1
SDG Number: 103-87305

Login Number: 68678
List Number: 1
Creator: Bantz, Brianna L

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-84079-1
Client Project/Site: Electrolux - Jefferson, IA

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: James Peace

Angela Muehling

Authorized for release by:
7/7/2016 9:27:56 AM
Angela Muehling, Project Manager I
angela.muehling@testamericainc.com

Designee for

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 310-84079-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-84079-1

Comments
No additional comments.

Receipt
The samples were received on 7/1/2016 6:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 6.0º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-84079-1	MW-66	Water	07/01/16 11:53	07/01/16 18:15
310-84079-2	Duplicate	Water	07/01/16 12:00	07/01/16 18:15
310-84079-3	MW-67	Water	07/01/16 13:23	07/01/16 18:15
310-84079-4	MW-65	Water	07/01/16 14:52	07/01/16 18:15
310-84079-5	Trip Blank	Water	07/01/16 00:00	07/01/16 18:15

Detection Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: MW-66 — Lab Sample ID: 310-84079-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	6.38		1.00		ug/L	1		8260C	Total/NA

Client Sample ID: Duplicate — Lab Sample ID: 310-84079-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	5.79		1.00		ug/L	1		8260C	Total/NA

Client Sample ID: MW-67 — Lab Sample ID: 310-84079-3

No Detections.

Client Sample ID: MW-65 — Lab Sample ID: 310-84079-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.736		0.500		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	61.3		1.00		ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.99		1.00		ug/L	1		8260C	Total/NA
Trichloroethene	2420		20.0		ug/L	20		8260C	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-84079-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: MW-66

Date Collected: 07/01/16 11:53
Date Received: 07/01/16 18:15

Lab Sample ID: 310-84079-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/05/16 11:34	1
Benzene	<0.500		0.500		ug/L			07/05/16 11:34	1
Bromobenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
Bromochloromethane	<5.00		5.00		ug/L			07/05/16 11:34	1
Bromodichloromethane	<1.00		1.00		ug/L			07/05/16 11:34	1
Bromoform	<5.00		5.00		ug/L			07/05/16 11:34	1
Bromomethane	<4.00		4.00		ug/L			07/05/16 11:34	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/05/16 11:34	1
n-Butylbenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
Carbon disulfide	<1.00		1.00		ug/L			07/05/16 11:34	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/05/16 11:34	1
Chlorobenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/05/16 11:34	1
Chloroethane	<4.00		4.00		ug/L			07/05/16 11:34	1
Chloroform	<1.00		1.00		ug/L			07/05/16 11:34	1
Chloromethane	<3.00		3.00		ug/L			07/05/16 11:34	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 11:34	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 11:34	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			07/05/16 11:34	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/05/16 11:34	1
Dibromomethane	<1.00		1.00		ug/L			07/05/16 11:34	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/05/16 11:34	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/05/16 11:34	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/05/16 11:34	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/05/16 11:34	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/05/16 11:34	1
trans-1,2-Dichloroethene	<1.00	F2	1.00		ug/L			07/05/16 11:34	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/05/16 11:34	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/05/16 11:34	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/05/16 11:34	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/05/16 11:34	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 11:34	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 11:34	1
Ethylbenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/05/16 11:34	1
Hexane	<1.00		1.00		ug/L			07/05/16 11:34	1
Isopropylbenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/05/16 11:34	1
Methylene Chloride	<5.00		5.00		ug/L			07/05/16 11:34	1
Methyl tert-butyl ether	<1.00	F2	1.00		ug/L			07/05/16 11:34	1
Naphthalene	<5.00		5.00		ug/L			07/05/16 11:34	1
N-Propylbenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
Styrene	<1.00		1.00		ug/L			07/05/16 11:34	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 11:34	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: MW-66

Date Collected: 07/01/16 11:53
Date Received: 07/01/16 18:15

Lab Sample ID: 310-84079-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 11:34	1
Tetrachloroethene	<1.00		1.00		ug/L			07/05/16 11:34	1
Toluene	<1.00		1.00		ug/L			07/05/16 11:34	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 11:34	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 11:34	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/05/16 11:34	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/05/16 11:34	1
Trichloroethene	**6.38**		1.00		ug/L			07/05/16 11:34	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/05/16 11:34	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/05/16 11:34	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 11:34	1
Vinyl chloride	<1.00		1.00		ug/L			07/05/16 11:34	1
Xylenes, Total	<3.00		3.00		ug/L			07/05/16 11:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*07/05/16 11:34*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*07/05/16 11:34*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/05/16 11:34*	*1*

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: Duplicate

Lab Sample ID: 310-84079-2

Date Collected: 07/01/16 12:00
Matrix: Water
Date Received: 07/01/16 18:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/05/16 11:56	1
Benzene	<0.500		0.500		ug/L			07/05/16 11:56	1
Bromobenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
Bromochloromethane	<5.00		5.00		ug/L			07/05/16 11:56	1
Bromodichloromethane	<1.00		1.00		ug/L			07/05/16 11:56	1
Bromoform	<5.00		5.00		ug/L			07/05/16 11:56	1
Bromomethane	<4.00		4.00		ug/L			07/05/16 11:56	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/05/16 11:56	1
n-Butylbenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
Carbon disulfide	<1.00		1.00		ug/L			07/05/16 11:56	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/05/16 11:56	1
Chlorobenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/05/16 11:56	1
Chloroethane	<4.00		4.00		ug/L			07/05/16 11:56	1
Chloroform	<1.00		1.00		ug/L			07/05/16 11:56	1
Chloromethane	<3.00		3.00		ug/L			07/05/16 11:56	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 11:56	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 11:56	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			07/05/16 11:56	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/05/16 11:56	1
Dibromomethane	<1.00		1.00		ug/L			07/05/16 11:56	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/05/16 11:56	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/05/16 11:56	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/05/16 11:56	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/05/16 11:56	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/05/16 11:56	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/05/16 11:56	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/05/16 11:56	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/05/16 11:56	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/05/16 11:56	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/05/16 11:56	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 11:56	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 11:56	1
Ethylbenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/05/16 11:56	1
Hexane	<1.00		1.00		ug/L			07/05/16 11:56	1
Isopropylbenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/05/16 11:56	1
Methylene Chloride	<5.00		5.00		ug/L			07/05/16 11:56	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/05/16 11:56	1
Naphthalene	<5.00		5.00		ug/L			07/05/16 11:56	1
N-Propylbenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
Styrene	<1.00		1.00		ug/L			07/05/16 11:56	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 11:56	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: Duplicate

Date Collected: 07/01/16 12:00
Date Received: 07/01/16 18:15

Lab Sample ID: 310-84079-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 11:56	1
Tetrachloroethene	<1.00		1.00		ug/L			07/05/16 11:56	1
Toluene	<1.00		1.00		ug/L			07/05/16 11:56	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 11:56	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 11:56	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/05/16 11:56	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/05/16 11:56	1
Trichloroethene	**5.79**		1.00		ug/L			07/05/16 11:56	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/05/16 11:56	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/05/16 11:56	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 11:56	1
Vinyl chloride	<1.00		1.00		ug/L			07/05/16 11:56	1
Xylenes, Total	<3.00		3.00		ug/L			07/05/16 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*07/05/16 11:56*	*1*
Dibromofluoromethane (Surr)	*87*		*80 - 120*		*07/05/16 11:56*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/05/16 11:56*	*1*

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: MW-67

Lab Sample ID: 310-84079-3

Date Collected: 07/01/16 13:23
Matrix: Water
Date Received: 07/01/16 18:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/05/16 12:17	1
Benzene	<0.500		0.500		ug/L			07/05/16 12:17	1
Bromobenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
Bromochloromethane	<5.00		5.00		ug/L			07/05/16 12:17	1
Bromodichloromethane	<1.00		1.00		ug/L			07/05/16 12:17	1
Bromoform	<5.00		5.00		ug/L			07/05/16 12:17	1
Bromomethane	<4.00		4.00		ug/L			07/05/16 12:17	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/05/16 12:17	1
n-Butylbenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
Carbon disulfide	<1.00		1.00		ug/L			07/05/16 12:17	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/05/16 12:17	1
Chlorobenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/05/16 12:17	1
Chloroethane	<4.00		4.00		ug/L			07/05/16 12:17	1
Chloroform	<1.00		1.00		ug/L			07/05/16 12:17	1
Chloromethane	<3.00		3.00		ug/L			07/05/16 12:17	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 12:17	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 12:17	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			07/05/16 12:17	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/05/16 12:17	1
Dibromomethane	<1.00		1.00		ug/L			07/05/16 12:17	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/05/16 12:17	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/05/16 12:17	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/05/16 12:17	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/05/16 12:17	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/05/16 12:17	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/05/16 12:17	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/05/16 12:17	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/05/16 12:17	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/05/16 12:17	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/05/16 12:17	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 12:17	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 12:17	1
Ethylbenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/05/16 12:17	1
Hexane	<1.00		1.00		ug/L			07/05/16 12:17	1
Isopropylbenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/05/16 12:17	1
Methylene Chloride	<5.00		5.00		ug/L			07/05/16 12:17	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/05/16 12:17	1
Naphthalene	<5.00		5.00		ug/L			07/05/16 12:17	1
N-Propylbenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
Styrene	<1.00		1.00		ug/L			07/05/16 12:17	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 12:17	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: MW-67

Lab Sample ID: 310-84079-3

Date Collected: 07/01/16 13:23

Matrix: Water

Date Received: 07/01/16 18:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 12:17	1
Tetrachloroethene	<1.00		1.00		ug/L			07/05/16 12:17	1
Toluene	<1.00		1.00		ug/L			07/05/16 12:17	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 12:17	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 12:17	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/05/16 12:17	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/05/16 12:17	1
Trichloroethene	<1.00		1.00		ug/L			07/05/16 12:17	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/05/16 12:17	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/05/16 12:17	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 12:17	1
Vinyl chloride	<1.00		1.00		ug/L			07/05/16 12:17	1
Xylenes, Total	<3.00		3.00		ug/L			07/05/16 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*07/05/16 12:17*	*1*
Dibromofluoromethane (Surr)	*82*		*80 - 120*		*07/05/16 12:17*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*07/05/16 12:17*	*1*

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: MW-65

Date Collected: 07/01/16 14:52
Date Received: 07/01/16 18:15

Lab Sample ID: 310-84079-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/05/16 12:38	1
Benzene	**0.736**		0.500		ug/L			07/05/16 12:38	1
Bromobenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
Bromochloromethane	<5.00		5.00		ug/L			07/05/16 12:38	1
Bromodichloromethane	<1.00		1.00		ug/L			07/05/16 12:38	1
Bromoform	<5.00		5.00		ug/L			07/05/16 12:38	1
Bromomethane	<4.00		4.00		ug/L			07/05/16 12:38	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/05/16 12:38	1
n-Butylbenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
Carbon disulfide	<1.00		1.00		ug/L			07/05/16 12:38	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/05/16 12:38	1
Chlorobenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/05/16 12:38	1
Chloroethane	<4.00		4.00		ug/L			07/05/16 12:38	1
Chloroform	<1.00		1.00		ug/L			07/05/16 12:38	1
Chloromethane	<3.00		3.00		ug/L			07/05/16 12:38	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 12:38	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 12:38	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			07/05/16 12:38	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/05/16 12:38	1
Dibromomethane	<1.00		1.00		ug/L			07/05/16 12:38	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/05/16 12:38	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/05/16 12:38	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/05/16 12:38	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/05/16 12:38	1
cis-1,2-Dichloroethene	**61.3**		1.00		ug/L			07/05/16 12:38	1
trans-1,2-Dichloroethene	**1.99**		1.00		ug/L			07/05/16 12:38	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/05/16 12:38	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/05/16 12:38	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/05/16 12:38	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/05/16 12:38	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 12:38	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 12:38	1
Ethylbenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/05/16 12:38	1
Hexane	<1.00		1.00		ug/L			07/05/16 12:38	1
Isopropylbenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/05/16 12:38	1
Methylene Chloride	<5.00		5.00		ug/L			07/05/16 12:38	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/05/16 12:38	1
Naphthalene	<5.00		5.00		ug/L			07/05/16 12:38	1
N-Propylbenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
Styrene	<1.00		1.00		ug/L			07/05/16 12:38	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 12:38	1

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: MW-65

Lab Sample ID: 310-84079-4

Date Collected: 07/01/16 14:52

Matrix: Water

Date Received: 07/01/16 18:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 12:38	1
Tetrachloroethene	<1.00		1.00		ug/L			07/05/16 12:38	1
Toluene	<1.00		1.00		ug/L			07/05/16 12:38	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 12:38	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 12:38	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/05/16 12:38	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/05/16 12:38	1
Trichloroethene	**2420**		20.0		ug/L			07/05/16 13:21	20
Trichlorofluoromethane	<4.00		4.00		ug/L			07/05/16 12:38	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/05/16 12:38	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 12:38	1
Vinyl chloride	<1.00		1.00		ug/L			07/05/16 12:38	1
Xylenes, Total	<3.00		3.00		ug/L			07/05/16 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*07/05/16 12:38*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*07/05/16 13:21*	*20*
Dibromofluoromethane (Surr)	*89*		*80 - 120*		*07/05/16 12:38*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 120*		*07/05/16 13:21*	*20*
Toluene-d8 (Surr)	*94*		*80 - 120*		*07/05/16 12:38*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/05/16 13:21*	*20*

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-84079-5

Date Collected: 07/01/16 00:00

Matrix: Water

Date Received: 07/01/16 18:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/05/16 09:05	1
Benzene	<0.500		0.500		ug/L			07/05/16 09:05	1
Bromobenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
Bromochloromethane	<5.00		5.00		ug/L			07/05/16 09:05	1
Bromodichloromethane	<1.00		1.00		ug/L			07/05/16 09:05	1
Bromoform	<5.00		5.00		ug/L			07/05/16 09:05	1
Bromomethane	<4.00		4.00		ug/L			07/05/16 09:05	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/05/16 09:05	1
n-Butylbenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
Carbon disulfide	<1.00		1.00		ug/L			07/05/16 09:05	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/05/16 09:05	1
Chlorobenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/05/16 09:05	1
Chloroethane	<4.00		4.00		ug/L			07/05/16 09:05	1
Chloroform	<1.00		1.00		ug/L			07/05/16 09:05	1
Chloromethane	<3.00		3.00		ug/L			07/05/16 09:05	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 09:05	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 09:05	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			07/05/16 09:05	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/05/16 09:05	1
Dibromomethane	<1.00		1.00		ug/L			07/05/16 09:05	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/05/16 09:05	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/05/16 09:05	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/05/16 09:05	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/05/16 09:05	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/05/16 09:05	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/05/16 09:05	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/05/16 09:05	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/05/16 09:05	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/05/16 09:05	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/05/16 09:05	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 09:05	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 09:05	1
Ethylbenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/05/16 09:05	1
Hexane	<1.00		1.00		ug/L			07/05/16 09:05	1
Isopropylbenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/05/16 09:05	1
Methylene Chloride	<5.00		5.00		ug/L			07/05/16 09:05	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/05/16 09:05	1
Naphthalene	<5.00		5.00		ug/L			07/05/16 09:05	1
N-Propylbenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
Styrene	<1.00		1.00		ug/L			07/05/16 09:05	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 09:05	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-84079-5

Date Collected: 07/01/16 00:00

Matrix: Water

Date Received: 07/01/16 18:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 09:05	1
Tetrachloroethene	<1.00		1.00		ug/L			07/05/16 09:05	1
Toluene	<1.00		1.00		ug/L			07/05/16 09:05	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 09:05	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 09:05	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/05/16 09:05	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/05/16 09:05	1
Trichloroethene	<1.00		1.00		ug/L			07/05/16 09:05	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/05/16 09:05	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/05/16 09:05	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 09:05	1
Vinyl chloride	<1.00		1.00		ug/L			07/05/16 09:05	1
Xylenes, Total	<3.00		3.00		ug/L			07/05/16 09:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*07/05/16 09:05*	*1*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*07/05/16 09:05*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/05/16 09:05*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)
310-84079-1	MW-66	101	91	98
310-84079-1 MS	MW-66	102	93	97
310-84079-1 MSD	MW-66	98	103	95
310-84079-2	Duplicate	100	87	98
310-84079-3	MW-67	99	82	96
310-84079-4	MW-65	97	89	94
310-84079-4	MW-65	97	90	98
310-84079-5	Trip Blank	104	92	99
LCS 310-132960/5	Lab Control Sample	96	90	100
LCS 310-132960/6	Lab Control Sample	102	88	99
MB 310-132960/7	Method Blank	100	87	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-132960/7
Matrix: Water
Analysis Batch: 132960

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/05/16 08:22	1
Benzene	<0.500		0.500		ug/L			07/05/16 08:22	1
Bromobenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
Bromochloromethane	<5.00		5.00		ug/L			07/05/16 08:22	1
Bromodichloromethane	<1.00		1.00		ug/L			07/05/16 08:22	1
Bromoform	<5.00		5.00		ug/L			07/05/16 08:22	1
Bromomethane	<4.00		4.00		ug/L			07/05/16 08:22	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/05/16 08:22	1
n-Butylbenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
Carbon disulfide	<1.00		1.00		ug/L			07/05/16 08:22	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/05/16 08:22	1
Chlorobenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/05/16 08:22	1
Chloroethane	<4.00		4.00		ug/L			07/05/16 08:22	1
Chloroform	<1.00		1.00		ug/L			07/05/16 08:22	1
Chloromethane	<3.00		3.00		ug/L			07/05/16 08:22	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 08:22	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/05/16 08:22	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			07/05/16 08:22	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/05/16 08:22	1
Dibromomethane	<1.00		1.00		ug/L			07/05/16 08:22	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/05/16 08:22	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/05/16 08:22	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/05/16 08:22	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/05/16 08:22	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/05/16 08:22	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/05/16 08:22	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/05/16 08:22	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/05/16 08:22	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/05/16 08:22	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/05/16 08:22	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 08:22	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/05/16 08:22	1
Ethylbenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/05/16 08:22	1
Hexane	<1.00		1.00		ug/L			07/05/16 08:22	1
Isopropylbenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/05/16 08:22	1
Methylene Chloride	<5.00		5.00		ug/L			07/05/16 08:22	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/05/16 08:22	1
Naphthalene	<5.00		5.00		ug/L			07/05/16 08:22	1
N-Propylbenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
Styrene	<1.00		1.00		ug/L			07/05/16 08:22	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-132960/7
Matrix: Water
Analysis Batch: 132960

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 08:22	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/05/16 08:22	1
Tetrachloroethene	<1.00		1.00		ug/L			07/05/16 08:22	1
Toluene	<1.00		1.00		ug/L			07/05/16 08:22	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 08:22	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/05/16 08:22	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/05/16 08:22	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/05/16 08:22	1
Trichloroethene	<1.00		1.00		ug/L			07/05/16 08:22	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/05/16 08:22	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/05/16 08:22	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/05/16 08:22	1
Vinyl chloride	<1.00		1.00		ug/L			07/05/16 08:22	1
Xylenes, Total	<3.00		3.00		ug/L			07/05/16 08:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*07/05/16 08:22*	*1*
Dibromofluoromethane (Surr)	*87*		*80 - 120*		*07/05/16 08:22*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*07/05/16 08:22*	*1*

Lab Sample ID: LCS 310-132960/5
Matrix: Water
Analysis Batch: 132960

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	45.20		ug/L		113	55 - 150
Benzene	20.0	21.42		ug/L		107	70 - 125
Bromobenzene	20.0	21.30		ug/L		106	70 - 120
Bromochloromethane	20.0	21.18		ug/L		106	65 - 145
Bromodichloromethane	20.0	20.16		ug/L		101	65 - 125
Bromoform	20.0	19.15		ug/L		96	45 - 120
2-Butanone (MEK)	40.0	40.86		ug/L		102	60 - 135
n-Butylbenzene	20.0	21.64		ug/L		108	60 - 135
sec-Butylbenzene	20.0	22.03		ug/L		110	70 - 125
tert-Butylbenzene	20.0	21.92		ug/L		110	70 - 125
Carbon disulfide	20.0	21.54		ug/L		108	65 - 135
Carbon tetrachloride	20.0	21.08		ug/L		105	60 - 135
Chlorobenzene	20.0	21.08		ug/L		105	70 - 125
Chlorodibromomethane	20.0	19.63		ug/L		98	65 - 125
Chloroform	20.0	21.02		ug/L		105	70 - 130
2-Chlorotoluene	20.0	21.38		ug/L		107	70 - 120
4-Chlorotoluene	20.0	21.51		ug/L		108	70 - 120
1,2-Dibromo-3-Chloropropane	20.0	19.98		ug/L		100	40 - 135
1,2-Dibromoethane (EDB)	20.0	20.74		ug/L		104	75 - 125
Dibromomethane	20.0	20.21		ug/L		101	75 - 130
1,2-Dichlorobenzene	20.0	20.83		ug/L		104	70 - 120
1,3-Dichlorobenzene	20.0	21.86		ug/L		109	70 - 125

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-132960/5
Matrix: Water
Analysis Batch: 132960

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	20.0	20.00		ug/L		100	70 - 125
1,1-Dichloroethane	20.0	21.63		ug/L		108	70 - 130
1,2-Dichloroethane	20.0	20.69		ug/L		103	70 - 130
1,1-Dichloroethene	20.0	23.96		ug/L		120	65 - 140
cis-1,2-Dichloroethene	20.0	20.84		ug/L		104	70 - 130
trans-1,2-Dichloroethene	20.0	22.25		ug/L		111	65 - 135
1,2-Dichloropropane	20.0	20.49		ug/L		102	70 - 125
1,3-Dichloropropane	20.0	20.82		ug/L		104	75 - 125
2,2-Dichloropropane	20.0	22.43		ug/L		112	55 - 140
1,1-Dichloropropene	20.0	22.22		ug/L		111	70 - 130
cis-1,3-Dichloropropene	20.0	19.21		ug/L		96	60 - 130
trans-1,3-Dichloropropene	20.0	18.64		ug/L		93	65 - 120
Ethylbenzene	20.0	21.34		ug/L		107	70 - 125
Hexachlorobutadiene	20.0	21.75		ug/L		109	60 - 125
Hexane	20.0	25.11		ug/L		126	55 - 145
Isopropylbenzene	20.0	21.53		ug/L		108	75 - 125
p-Isopropyltoluene	20.0	21.55		ug/L		108	70 - 125
Methylene Chloride	20.0	20.12		ug/L		101	50 - 140
Methyl tert-butyl ether	20.0	21.12		ug/L		106	70 - 125
Naphthalene	20.0	21.05		ug/L		105	45 - 130
N-Propylbenzene	20.0	21.71		ug/L		109	75 - 125
Styrene	20.0	21.18		ug/L		106	70 - 120
1,1,1,2-Tetrachloroethane	20.0	20.60		ug/L		103	70 - 120
1,1,2,2-Tetrachloroethane	20.0	20.65		ug/L		103	65 - 125
Tetrachloroethene	20.0	23.21		ug/L		116	55 - 150
Toluene	20.0	21.77		ug/L		109	75 - 125
1,2,3-Trichlorobenzene	20.0	20.97		ug/L		105	60 - 125
1,2,4-Trichlorobenzene	20.0	21.45		ug/L		107	60 - 125
1,1,1-Trichloroethane	20.0	22.20		ug/L		111	70 - 130
1,1,2-Trichloroethane	20.0	22.44		ug/L		112	70 - 130
Trichloroethene	20.0	22.02		ug/L		110	70 - 130
1,2,3-Trichloropropane	20.0	21.50		ug/L		108	65 - 130
1,2,4-Trimethylbenzene	20.0	21.17		ug/L		106	70 - 125
1,3,5-Trimethylbenzene	20.0	21.55		ug/L		108	75 - 125
Xylenes, Total	40.0	41.99		ug/L		105	75 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*90*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCS 310-132960/6
Matrix: Water
Analysis Batch: 132960

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	14.08		ug/L		70	35 - 130
Chloroethane	20.0	21.22		ug/L		106	55 - 140

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-132960/6
Matrix: Water
Analysis Batch: 132960

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	20.0	19.86		ug/L		99	40 - 135
Dichlorodifluoromethane	20.0	23.71		ug/L		119	35 - 130
Trichlorofluoromethane	20.0	22.41		ug/L		112	50 - 145
Vinyl chloride	20.0	20.89		ug/L		104	50 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*88*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: 310-84079-1 MS
Matrix: Water
Analysis Batch: 132960

Client Sample ID: MW-66
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<10.0		40.0	35.90		ug/L		83	50 - 150
Benzene	<0.500		20.0	18.38		ug/L		92	50 - 135
Bromobenzene	<1.00		20.0	17.96		ug/L		90	50 - 140
Bromochloromethane	<5.00		20.0	21.58		ug/L		108	50 - 145
Bromodichloromethane	<1.00		20.0	18.03		ug/L		90	50 - 130
Bromoform	<5.00		20.0	16.96		ug/L		85	35 - 125
2-Butanone (MEK)	<10.0		40.0	44.75		ug/L		112	50 - 145
n-Butylbenzene	<1.00		20.0	13.18		ug/L		66	35 - 135
sec-Butylbenzene	<1.00		20.0	13.11		ug/L		66	40 - 125
tert-Butylbenzene	<1.00		20.0	13.99		ug/L		70	45 - 130
Carbon disulfide	<1.00		20.0	14.57		ug/L		72	40 - 135
Carbon tetrachloride	<2.00		20.0	14.44		ug/L		72	45 - 135
Chlorobenzene	<1.00		20.0	17.35		ug/L		87	50 - 135
Chlorodibromomethane	<5.00		20.0	18.18		ug/L		91	45 - 130
Chloroform	<1.00		20.0	19.11		ug/L		96	50 - 130
2-Chlorotoluene	<1.00		20.0	15.71		ug/L		79	45 - 130
4-Chlorotoluene	<1.00		20.0	16.06		ug/L		80	45 - 130
1,2-Dibromo-3-Chloropropane	<5.00		20.0	22.70		ug/L		114	40 - 135
1,2-Dibromoethane (EDB)	<1.00		20.0	19.73		ug/L		99	50 - 140
Dibromomethane	<1.00		20.0	20.42		ug/L		102	55 - 140
1,2-Dichlorobenzene	<1.00		20.0	16.76		ug/L		84	45 - 135
1,3-Dichlorobenzene	<1.00		20.0	17.15		ug/L		86	45 - 140
1,4-Dichlorobenzene	<1.00		20.0	16.48		ug/L		82	45 - 135
1,1-Dichloroethane	<1.00		20.0	18.80		ug/L		94	45 - 140
1,2-Dichloroethane	<1.00		20.0	21.44		ug/L		107	60 - 130
1,1-Dichloroethene	<2.00		20.0	15.44		ug/L		77	45 - 140
cis-1,2-Dichloroethene	<1.00		20.0	18.83		ug/L		94	50 - 135
trans-1,2-Dichloroethene	<1.00	F2	20.0	16.11		ug/L		81	45 - 135
1,2-Dichloropropane	<1.00		20.0	19.45		ug/L		97	55 - 135
1,3-Dichloropropane	<1.00		20.0	20.17		ug/L		101	55 - 135
2,2-Dichloropropane	<4.00		20.0	15.58		ug/L		78	40 - 140
1,1-Dichloropropene	<1.00		20.0	16.29		ug/L		81	50 - 130
cis-1,3-Dichloropropene	<5.00		20.0	17.62		ug/L		88	50 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-84079-1 MS
Matrix: Water
Analysis Batch: 132960

Client Sample ID: MW-66
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	<5.00		20.0	17.59		ug/L		88	45 - 125
Ethylbenzene	<1.00		20.0	15.27		ug/L		76	45 - 125
Hexachlorobutadiene	<5.00		20.0	13.43		ug/L		67	35 - 130
Hexane	<1.00		20.0	11.67		ug/L		58	35 - 145
Isopropylbenzene	<1.00		20.0	14.24		ug/L		71	45 - 125
p-Isopropyltoluene	<1.00		20.0	13.67		ug/L		68	45 - 125
Methylene Chloride	<5.00		20.0	18.05		ug/L		90	45 - 140
Methyl tert-butyl ether	<1.00	F2	20.0	18.58		ug/L		93	55 - 130
Naphthalene	<5.00		20.0	19.22		ug/L		96	40 - 135
N-Propylbenzene	<1.00		20.0	13.84		ug/L		69	45 - 125
Styrene	<1.00		20.0	16.67		ug/L		83	45 - 130
1,1,1,2-Tetrachloroethane	<1.00		20.0	17.64		ug/L		88	50 - 130
1,1,2,2-Tetrachloroethane	<1.00		20.0	19.57		ug/L		98	45 - 140
Tetrachloroethene	<1.00		20.0	15.22		ug/L		76	35 - 150
Toluene	<1.00		20.0	17.10		ug/L		85	45 - 130
1,2,3-Trichlorobenzene	<5.00		20.0	18.43		ug/L		92	45 - 140
1,2,4-Trichlorobenzene	<5.00		20.0	17.25		ug/L		86	40 - 135
1,1,1-Trichloroethane	<1.00		20.0	15.71		ug/L		79	50 - 130
1,1,2-Trichloroethane	<1.00		20.0	19.92		ug/L		100	50 - 145
Trichloroethene	6.38		20.0	22.74		ug/L		82	50 - 130
1,2,3-Trichloropropane	<1.00		20.0	20.42		ug/L		102	45 - 140
1,2,4-Trimethylbenzene	<1.00		20.0	15.61		ug/L		78	45 - 130
1,3,5-Trimethylbenzene	<1.00		20.0	14.99		ug/L		75	10 - 125
Xylenes, Total	<3.00		40.0	32.78		ug/L		82	45 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*93*		*80 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: 310-84079-1 MSD
Matrix: Water
Analysis Batch: 132960

Client Sample ID: MW-66
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	<10.0		40.0	46.87		ug/L		110	50 - 150	27	30
Benzene	<0.500		20.0	19.07		ug/L		95	50 - 135	4	15
Bromobenzene	<1.00		20.0	17.75		ug/L		89	50 - 140	1	15
Bromochloromethane	<5.00		20.0	22.44		ug/L		112	50 - 145	4	20
Bromodichloromethane	<1.00		20.0	18.19		ug/L		91	50 - 130	1	15
Bromoform	<5.00		20.0	16.98		ug/L		85	35 - 125	0	20
2-Butanone (MEK)	<10.0		40.0	45.43		ug/L		114	50 - 145	1	35
n-Butylbenzene	<1.00		20.0	12.92		ug/L		65	35 - 135	2	25
sec-Butylbenzene	<1.00		20.0	13.35		ug/L		67	40 - 125	2	25
tert-Butylbenzene	<1.00		20.0	14.11		ug/L		71	45 - 130	1	25
Carbon disulfide	<1.00		20.0	17.69		ug/L		88	40 - 135	19	35
Carbon tetrachloride	<2.00		20.0	14.14		ug/L		71	45 - 135	2	20
Chlorobenzene	<1.00		20.0	17.22		ug/L		86	50 - 135	1	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-84079-1 MSD
Matrix: Water
Analysis Batch: 132960

Client Sample ID: MW-66
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorodibromomethane	<5.00		20.0	16.80		ug/L		84	45 - 130	8	15
Chloroform	<1.00		20.0	20.29		ug/L		101	50 - 130	6	15
2-Chlorotoluene	<1.00		20.0	15.33		ug/L		77	45 - 130	2	20
4-Chlorotoluene	<1.00		20.0	15.79		ug/L		79	45 - 130	2	20
1,2-Dibromo-3-Chloropropane	<5.00		20.0	19.78		ug/L		99	40 - 135	14	35
1,2-Dibromoethane (EDB)	<1.00		20.0	19.97		ug/L		100	50 - 140	1	15
Dibromomethane	<1.00		20.0	20.51		ug/L		103	55 - 140	0	20
1,2-Dichlorobenzene	<1.00		20.0	17.26		ug/L		86	45 - 135	3	15
1,3-Dichlorobenzene	<1.00		20.0	16.98		ug/L		85	45 - 140	1	20
1,4-Dichlorobenzene	<1.00		20.0	15.99		ug/L		80	45 - 135	3	20
1,1-Dichloroethane	<1.00		20.0	21.11		ug/L		106	45 - 140	12	15
1,2-Dichloroethane	<1.00		20.0	20.81		ug/L		104	60 - 130	3	15
1,1-Dichloroethene	<2.00		20.0	18.54		ug/L		93	45 - 140	18	20
cis-1,2-Dichloroethene	<1.00		20.0	19.98		ug/L		100	50 - 135	6	15
trans-1,2-Dichloroethene	<1.00	F2	20.0	20.05	F2	ug/L		100	45 - 135	22	20
1,2-Dichloropropane	<1.00		20.0	18.46		ug/L		92	55 - 135	5	15
1,3-Dichloropropane	<1.00		20.0	19.99		ug/L		100	55 - 135	1	20
2,2-Dichloropropane	<4.00		20.0	16.68		ug/L		83	40 - 140	7	20
1,1-Dichloropropene	<1.00		20.0	15.96		ug/L		80	50 - 130	2	20
cis-1,3-Dichloropropene	<5.00		20.0	17.08		ug/L		85	50 - 130	3	15
trans-1,3-Dichloropropene	<5.00		20.0	16.78		ug/L		84	45 - 125	5	20
Ethylbenzene	<1.00		20.0	14.59		ug/L		73	45 - 125	5	20
Hexachlorobutadiene	<5.00		20.0	12.15		ug/L		61	35 - 130	10	35
Hexane	<1.00		20.0	13.57		ug/L		68	35 - 145	15	30
Isopropylbenzene	<1.00		20.0	14.19		ug/L		71	45 - 125	0	20
p-Isopropyltoluene	<1.00		20.0	13.88		ug/L		69	45 - 125	2	20
Methylene Chloride	<5.00		20.0	20.18		ug/L		101	45 - 140	11	15
Methyl tert-butyl ether	<1.00	F2	20.0	23.80	F2	ug/L		119	55 - 130	25	15
Naphthalene	<5.00		20.0	19.44		ug/L		97	40 - 135	1	25
N-Propylbenzene	<1.00		20.0	13.68		ug/L		68	45 - 125	1	20
Styrene	<1.00		20.0	16.23		ug/L		81	45 - 130	3	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	16.55		ug/L		83	50 - 130	6	15
1,1,2,2-Tetrachloroethane	<1.00		20.0	19.55		ug/L		98	45 - 140	0	20
Tetrachloroethene	<1.00		20.0	15.27		ug/L		76	35 - 150	0	20
Toluene	<1.00		20.0	16.14		ug/L		81	45 - 130	6	15
1,2,3-Trichlorobenzene	<5.00		20.0	19.35		ug/L		97	45 - 140	5	25
1,2,4-Trichlorobenzene	<5.00		20.0	18.30		ug/L		91	40 - 135	6	25
1,1,1-Trichloroethane	<1.00		20.0	17.55		ug/L		88	50 - 130	11	15
1,1,2-Trichloroethane	<1.00		20.0	19.57		ug/L		98	50 - 145	2	20
Trichloroethene	6.38		20.0	22.18		ug/L		79	50 - 130	3	15
1,2,3-Trichloropropane	<1.00		20.0	20.51		ug/L		103	45 - 140	0	25
1,2,4-Trimethylbenzene	<1.00		20.0	15.61		ug/L		78	45 - 130	0	20
1,3,5-Trimethylbenzene	<1.00		20.0	15.29		ug/L		76	10 - 125	2	35
Xylenes, Total	<3.00		40.0	31.92		ug/L		80	45 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-84079-1 MSD
Matrix: Water
Analysis Batch: 132960

Client Sample ID: MW-66
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	95		80 - 120

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

GC/MS VOA

Analysis Batch: 132960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-84079-1	MW-66	Total/NA	Water	8260C	
310-84079-1 MS	MW-66	Total/NA	Water	8260C	
310-84079-1 MSD	MW-66	Total/NA	Water	8260C	
310-84079-2	Duplicate	Total/NA	Water	8260C	
310-84079-3	MW-67	Total/NA	Water	8260C	
310-84079-4	MW-65	Total/NA	Water	8260C	
310-84079-4	MW-65	Total/NA	Water	8260C	
310-84079-5	Trip Blank	Total/NA	Water	8260C	
LCS 310-132960/5	Lab Control Sample	Total/NA	Water	8260C	
LCS 310-132960/6	Lab Control Sample	Total/NA	Water	8260C	
MB 310-132960/7	Method Blank	Total/NA	Water	8260C	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Client Sample ID: MW-66 — Lab Sample ID: 310-84079-1

Date Collected: 07/01/16 11:53 — **Matrix: Water**
Date Received: 07/01/16 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	132960	07/05/16 11:34	SJN	TAL CF

Client Sample ID: Duplicate — Lab Sample ID: 310-84079-2

Date Collected: 07/01/16 12:00 — **Matrix: Water**
Date Received: 07/01/16 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	132960	07/05/16 11:56	SJN	TAL CF

Client Sample ID: MW-67 — Lab Sample ID: 310-84079-3

Date Collected: 07/01/16 13:23 — **Matrix: Water**
Date Received: 07/01/16 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	132960	07/05/16 12:17	SJN	TAL CF

Client Sample ID: MW-65 — Lab Sample ID: 310-84079-4

Date Collected: 07/01/16 14:52 — **Matrix: Water**
Date Received: 07/01/16 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	132960	07/05/16 12:38	SJN	TAL CF
Total/NA	Analysis	8260C		20	132960	07/05/16 13:21	SJN	TAL CF

Client Sample ID: Trip Blank — Lab Sample ID: 310-84079-5

Date Collected: 07/01/16 00:00 — **Matrix: Water**
Date Received: 07/01/16 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	132960	07/05/16 09:05	SJN	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-16
Illinois	NELAP	5	200024	11-29-16
Iowa	State Program	7	007	12-01-17
Kansas	NELAP	7	E-10341	01-31-15 *
Minnesota	NELAP	5	019-999-319	12-31-16
Minnesota (Petrofund)	State Program	1	3349	08-22-16
North Dakota	State Program	8	R-186	09-29-16
Oregon	NELAP	10	IA100001	09-29-16

* Certification renewal pending - certification considered valid.

Method Summary

Client: Golder Associates Inc.
Project/Site: Electrolux - Jefferson, IA

TestAmerica Job ID: 310-84079-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

310-84079 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Golder Associates

City/State: Manchester, NH | Project:

Receipt Information

Date/Time Received: 7/1/16 1815 | Received By: JMH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☑ TA Courier ☐ TA Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes	☐ No	*If yes:* Cooler ID: 4-T
Multiple Coolers?	☑ Yes	☒ No	*If yes:* Cooler # 2 of 2
Cooler Custody Seals Present?	☐ Yes	☑ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☑ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☑ Yes	☐ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Temperature Blank? ☑ Yes ☐ No ID & Bottle Type:

NOTE: If yes, use temp blank for measurement. If no, specify sample ID(s) and bottle type used to take measurement.

Thermometer ID: H | Correction Factor (°C): +0.1°C

Uncorrected Temp (°C): 5.9°C | Corrected Temp (°C): 6.0°C

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

TestAmerica Cedar Falls
704 Ente[illegible] Drive
Cedar Falls, IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Alan Phillips (AP)	Lab PM: Hayes, Shawn M	Carrier Tracking No(s):	COC No: 310-17319-5481.1
Client Contact: James Peace	Phone:	E-Mail: shawn.hayes@testamericainc.com		Page: Page 1 of 1
Company: Golder Associates Inc.				Job #:
Address: 670 North Commercial Street Suite 103	Due Date Requested:			
City: Manchester	TAT Requested (days):			
State, Zip: NH, 03101				
Phone:	PO #: Purchase Order Requested			
Email: james_peace@golder.com	WO #:			
Project Name: Electrolux - Jefferson, IA	TestAmerica Project #: 31002428			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - Volatile Standard Sublist	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
MW-66	7/1/16	1153	G	W			X		
Duplicate	↓	1200	↓	↓			X		
MW-67	↓	1323	↓	↓			X		
MW-65	↓	1452	↓	↓			X		
Trip Blank							X		

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Alan Phillips	Date/Time: 7/1/16 1644	Company	Received by: [signature]	Date/Time: 7/1/16 16:44	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 7/1/16 1815	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 310-84079-1

Login Number: 84079

List Source: TestAmerica Cedar Falls

List Number: 1

Creator: Tuladhar, Sushil X

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX J

HORIZONTAL SEEPAGE FLOW VELOCITY CALCULATIONS

Seepage Velocity Calculations - Electrolux Jefferson

OBJECTIVE:

Calculate the flow velocity for the former Electrolux Home Products, Inc. facility in Jefferson, Iowa within the yellow-brown till.

METHOD

Calculate the seepage velocity (V) based on the Darcy equation:

$$V = \frac{Ki}{n_e}$$

ASSUMPTIONS

1. Homogeneous, isotropic aquifer material.
2. 1 cm/s = 2,835 ft/day
3. 1 ft/day = 365 ft/year

CALCULATIONS

Golder calculated a groundwater flow velocity for Jefferson site based on the Darcy equation for the following conditions:

Hydraulic Gradient (i)		Hydraulic Conductivity (K)	
Low i (ft/ft)=	0.003	Low K (cm/sec) =	4.90E-06
Average i (ft/ft)=	0.017	Average K (cm/sec) =	2.62E-05
High i (ft/ft)	0.03	High K (cm/sec) =	1.40E-04

See Figure 8 for low and high hydraulic gradient values

See Table 4 for slug test results - hydraulic conductivity values

K*i	Low K	Average K	High K
Low i	1.47E-08	7.86E-08	4.20E-07
Average i	8.09E-08	4.32E-07	2.31E-06
High i	1.47E-07	7.86E-07	4.20E-06

Assume glacial till has an effective porosity (n_e) of 0.25

Seepage velocity (V)		
Low	5.88E-08	cm/sec
Average	1.73E-06	cm/sec
High	1.68E-05	cm/sec
Low	1.67E-04	ft/day
Average	4.90E-03	ft/day
High	4.76E-02	ft/day
Low	0.061	ft/year
Average	1.8	ft/year
High	17	ft/year

Prepared By: ATK
Checked By JMR
Reviewed By: APTM

APPENDIX K

QUALITY ASSURANCE/QUALITY CONTROL

Appendix K – QA/QC Summaries 2012 - 2016

Files from the Supplemental Soil and Groundwater Assessment (Golder, 2012a)

QA/QC Summary May 2012
Relative Percent Difference (RPD) Tables May 2012

Files from the Supplemental Soil and Groundwater Assessment Addendum (Golder, 2013)

QA/QC Summary December 2012
RPD Tables December 2012

Files from the Soil and Groundwater Assessment Addendum No. 2 (Golder, 2014)

QA/QC Summary October 2013
RPD Tables October 2013

2014 – 2016 QA/QC Files

QA/QC Summary 2014 – 2016
RPD Tables 2014 – 2016

1.0 QUALITY ASSURANCE/QUALITY CONTROL

1.1 Introduction

Golder performed a Quality Assurance/Quality Control (QA/QC) data evaluation review on inorganic and organic laboratory data submitted for 49 soil samples (including 5 field duplicate samples), 23 groundwater samples (including 2 field duplicate samples), and 7 trip blank samples collected at the former Electrolux Home Products, Inc. (Electrolux) facility located in Jefferson, Iowa in May 2012. Sample results are summarized in Tables 8 and 9.

Golder evaluated the precision, accuracy, and completeness of the analytical data.

- Precision is the measure of variability of individual sample measurements. Precision was evaluated through collection and analysis of field duplicate samples and comparing primary soil and groundwater sample results to duplicate sample results. The laboratory also analyzed trip blank samples to evaluate potential impacts during shipping of the samples.
- Accuracy is the degree of agreement for a measurement with an accepted reference or true value and is a measure of the bias in a system. Evaluation of accuracy included an examination of analytical holding times, gas chromatography/mass spectrometry (GC/MS) instrument performance checks, instrument calibrations, method blanks, surrogate spikes, laboratory control spike/spike duplicate (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) analyses, and internal standards for GC/MS analysis.
- Completeness is the ratio of total number of samples analyzed and validated as acceptable to the number of samples submitted for analysis. Completeness also includes an evaluation of the completeness of the laboratory data package submitted for validation. Golder assessed the completeness of the laboratory data package but did not perform a full data validation evaluation.

1.2 Precision

To evaluate precision, Golder collected field QC samples at a frequency of approximately 10% in accordance with the Work Plan (SOP-6), which equated to five soil duplicate samples and two groundwater duplicate samples. Golder calculated the Relative Percent Difference (RPD), which is defined as the difference between two duplicate samples divided by the mean and expressed as a percentage. Golder considered acceptable RPD limits for field duplicates with analyte concentrations greater than five times the minimum reporting level (MRL) to be less than or equal to 25% for aqueous samples and less than or equal to 50% for soil samples. Golder considered the acceptable RPD limits for field duplicates with analyte concentrations less than five times the MRL to be less than or equal to the MRL. Results of the field duplicate analysis are presented in Table 1 of this appendix.

The five soil field duplicate samples were all within the acceptable RPD limits (< 50%). Groundwater Duplicate 1 met the RPD acceptance limits, however, the Duplicate 2 groundwater sample had six analytes that were above the 30% acceptance limits including 1,1-dichloroethane, 1,2,4-

trimethylbenzene, isopropylbenzene, n-butylbenzene, and sec-butylbenzene. Because the laboratory detected these analytes at low concentrations (typically less than 13 ug/l), the RPD can appear higher than acceptable levels even though there is little difference in the total concentrations (e.g., iso-propylbenzene – 12.8 ug/l and duplicate – 8 ug/l = 46.2 %RPD). Despite these differences, it is Golder's opinion that these data are acceptable for their intended use as they do not alter the Site Conceptual Model.

Golder submitted a trip blank with each cooler containing samples for analysis of volatile organic compounds (VOCs) to screen for shipping and/or bottle related contamination. The laboratory did not detect any analytes at a concentration above the laboratory reporting limits in the trip blanks.

1.3 Accuracy

Laboratory QC included GC/MS instrument performance checks, instrument calibrations, method blanks, surrogate spikes, laboratory control sample/laboratory control sample duplicate (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) analyses, and internal standards. The laboratory completed the following QC tests:

- Instrument performance checks to check mass resolution and proper identification of target analytes during GC/MS analyses.
- Instrument calibrations to measure system performance throughout the analytical procedure and established the quantitation criteria for the analytes.
- Method blanks to identify compounds which could be introduced during the preparation, extraction, or analysis phases of the method.
- Surrogates, compounds structurally similar to target analytes but generally not found in nature, to demonstrate the percent recovery of the organic method by the laboratory.

The laboratory compared the MS/MSD and LCS/LCSD recoveries to published and laboratory control-charted QC limits to demonstrate acceptable compound recovery. Internal standards were analyzed to ensure the stability of the GC/MS instrument sensitivity and response during every analytical run. Golder reviewed the laboratory analytical data and it is Golder's opinion that the laboratory data accuracy is acceptable for their intended use.

1.4 Completeness

Evaluation of completeness included a review of the chain-of-custody records, a review of laboratory analytical methods and detection limits, a review of project narratives, and a review of laboratory data deliverables for data validation compliance. The data quality objective for this site laboratory data was to achieve 90-100% completeness of the data collected.

1.4.1 Soil

The TestAmerica report, dated May 18, 2012, Lab No. CVE0462, presents the results for 12 soil samples (including two duplicates) analyzed for one or more of the following parameters: VOCs, TEH, metals, and oil and grease collected on May 2, 2012. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 3.1 degrees Celsius (^{0}C), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis. TestAmerica reported "B" (compound was found in the blank and sample) and "J" (result is less than the reporting limit (RL)) but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value) flags for the oil and grease analyses. TestAmerica indicated that the analytical results do not appear to be affected by the laboratory qualifications and the data are valid.

The TestAmerica report, dated May 21, 2012, Lab No. CVE0494, presents the results for 37 soil samples (including three duplicates) analyzed for one or more of the following parameters: VOCs, TEH, metals, oil and grease, TCLP VOCs, TCLP SVOCs, TCLP herbicides, TCLP pesticides, cyanide, sulfide, pH, PCBs, and flashpoint collected on May 3rd and 4th, 2012. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 2.9 and 3.1 ^{0}C (two coolers), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis. TestAmerica reported "B" (compound was found in the blank and sample) and "J" (result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value) flags for the oil and grease analyses. In addition, the oil and grease matrix spike duplicate (MSD) recovery for sample 500-46172-8 in batch 149727 was outside control limits. The precision RPD was also outside control limits. The associated LCS recovery met acceptance criteria. Therefore, TestAmerica believes that the analytical results do not appear to be affected by the laboratory qualifications and the data are valid.

TestAmerica did not meet the reporting limits for EPA's Regional Screening Levels (RSLs) for arsenic (1.6 mg/kg). The reporting limits for soil samples analyzed for arsenic ranged from 4.32 mg/kg to 14.6 mg/kg, which are below the Iowa Department of Natural Resources' (IDNR's) Statewide Screening concentration of 17 mg/kg. Although Golder cannot evaluate whether non-detect concentrations of arsenic meet EPA's RSLs, the data are suitable to screen Site soils against IDNR's Statewide Screening Standard.

TestAmerica did not meet the RSL reporting limit for vinyl chloride (1,700 ug/kg) in six soil samples including SB-03 (MIP-30) 02-04, SB-03 (MIP-30) 06-08, SB-06 (MIP-27) 6 to 8, SB-08 (MIP-25) 10 to 12, SB-13 (MIP-32) 1 to 3, and SB-16 (MIP-05) 12 to 14. All six of these soil samples were within 200 ug/kg of meeting the vinyl chloride RSL. TestAmerica did not detect vinyl chloride at a concentration above the vinyl chloride RSL in the 34 other soil samples collected from the Site. In addition, Golder collected a duplicate soil samples (Duplicate-01) from soil sample SB-06 (MIP-27) 6 to 8. TestAmerica met the vinyl chloride RSL reporting limit for the duplicate sample and vinyl chloride was not detected at a

concentration above the laboratory reporting limit. It is Golder's opinion that the elevated vinyl chloride reporting limits in the six soil samples does not affect the Site Conceptual Model.

1.4.2 Groundwater

The TestAmerica report, dated June 4, 2012, Lab No. CVE1789, presents the results for 2 groundwater samples analyzed for VOCs and TEH collected on May 23 and 25, 2012. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.1 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis. The laboratory analysis QA/QC certification form indicates the following:

- TestAmerica reported a "CIN" flag, which indicates that the percent relative standard deviation (% RSD) for a particular compound was above 15% and the average % RSD for all compounds in the calibration met the 15% criteria specified in EPA methods 8260B/8270C, for the following analytes: bromoform, bromomethane, 1,1-DCA, 2-2-Dichloropropane, and trans-1,3-dichloropropene.
- TestAmerica also reported a "C" flag for 1,1,2,2,-tetrachlorethane indicating that the "calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted." Golder did not report 1,1,2,2,-tetrachlorethane as a detection in Table 9.

The TestAmerica report, dated June 6, 2012, Lab No. CVE1748, presents the results for five groundwater samples analyzed for VOCs and TEH collected on May 22nd and 24th, 2012. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 1.6 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis. The laboratory analysis QA/QC certification form indicates the following:

- TestAmerica reported a "CIN" flag for the same compounds listed in preceding lab report (TestAmerica Lab No. CVE1789) for the VOC analyses. However, TestAmerica detected 1,1-DCA at a concentration above the laboratory reporting limit for groundwater samples collected from MW-27 (CVE1748-02) and MW-29 (CVE1748-04) that had a "CIN" flag. TestAmerica considers the laboratory results to be valid.
- TestAmerica also reported a "C" flag for 1,1,2,2,-tetrachlorethane indicating that the "calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted." Golder did not report 1,1,2,2,-tetrachlorethane as a detection in Table 9.

The TestAmerica report, dated June 6, 2012, Lab No. CVE1585, presents the results for 16 groundwater samples (including 2 duplicate samples) analyzed for VOCs and TEH collected on May 21st, 22nd and 23rd, and 25th 2012. According to the case narrative, with the exception of one sample, TestAmerica received the samples in good condition, at a temperature of 1.6 ^{0}C and 0.4 ^{0}C (two coolers), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis. TestAmerica noted that they received a broken 1-liter amber bottle (TEH analysis)

containing a groundwater sample for MW-25S. Golder re-sampled groundwater from MW-25S on May 25, 2012. The laboratory analysis QA/QC certification form indicates the following:

- CVE1585-01: TestAmerica reported a "CIN" specific flag for EPA methods 8260B/8270C for the following analytes: bromomethane, 1,1-DCE, 1,1-dichloropropene, isopropylbenzene, n-propylbenzene, and 1,1,1-TCA. Test America detected 1,1-DCE above the laboratory reporting limit. TestAmerica also reported "B and B1" flags for cis-1,2-DCE, which indicates that the "analyte was detected in the associated Method Blank, and that the analyte concentration in the sample is greater than 10x the concentration found in the method blank, respectively, and should not have an impact on the data."
- CVE1585-02, 08, 09, 11, 13, 14, 15: TestAmerica reported a "CIN" specific flag for EPA methods 8260B/8270C for the following analytes: bromomethane, 1,1-DCE, 1,1-dichloropropene, isopropylbenzene, n-propylbenzene, and 1,1,1-TCA. Golder considers this data to be valid.
- CVE1585-03, 04: TestAmerica reported a "CIN" specific flag for EPA methods 8260B/8270C for the following analytes: bromomethane, 1,1-DCE, 1,1-dichloropropene, isopropylbenzene, n-propylbenzene, and 1,1,1-TCA. Test America detected isopropylbenzene and n-propylbenzene above the laboratory reporting limits. Golder considers this data to be valid.
- CVE1585-05: TestAmerica reported a "CIN" specific flag for EPA methods 8260B/8270C for the following analytes: bromomethane, 1,1-DCE, 1,1-dichloropropene, isopropylbenzene, n-propylbenzene, 1,1,1-TCA, and 1,1,2-trichloroethane. In addition, the matrix spike (MS) and/or matrix spike duplicate (MSD) for TCE were outside control limits. Golder considers this data to be valid.
- CVE1585-06, 07, 12, 16: TestAmerica reported a "CIN" specific for EPA methods 8260B/8270C for the following analytes: bromomethane, 1,1-DCE, 1,1-dichloropropene, isopropylbenzene, n-propylbenzene, 1,1,1-TCA, and 1,1,2-trichloroethane. Golder considers this data to be valid.
- CVE1585-09: TestAmerica reported "B and B1" flags for cis-1,2-DCE, which indicates that the analyte was detected in the associated Method Blank, and that the analyte concentration in the sample is greater than 10x the concentration found in the method blank, respectively. The analytical results for cis-1,2-DCE for this sample were within 4.5 %RPD of the duplicate groundwater sample (Groundwater Duplicate 1). Therefore, Golder considers this analytical data to be valid.
- CVE1585-10: TestAmerica reported a "CIN" flag specific for EPA methods 8260B/8270C for the following analytes: bromomethane, 1,1-DCE, 1,1-dichloropropene, isopropylbenzene, n-propylbenzene, and 1,1,1-TCA. In addition, the MS and/or MSD for acetone and vinyl chloride were outside control limits. Golder considers this data to be valid.
- CVE1585-14: TestAmerica reported "B and B1" flags for cis-1,2-DCE, which indicates that the analyte was detected in the associated Method Blank, and that the analyte concentration in the sample is greater than 10x the concentration found in the method blank, respectively. This sample was a duplicate (Groundwater Duplicate 1) groundwater sample. The analytical results for cis-1,2-DCE were within 4.5 %RPD of the main groundwater sample (MW-25D). Therefore, Golder considers this analytical data to be valid.
- CVE1585-15: TestAmerica reported "C and L" flags for carbon disulfide, which indicates that Calibration Verification recovery was above the method control limit for this analyte (analyte not detected, data not impacted) and that the Laboratory Control Sample and/or

Laboratory Control Sample Duplicate recovery was above the control limits (analyte not detected, data not impacted). Golder considers this data to be valid.

Golder collected a total of 46 VOC soil samples (63 analytes per analysis), 36 TEH soil samples, 36 oil and grease soil samples, 4 SVOC soil samples, 17 metals soil samples (8 analytes per analysis), and 4 PCB soil samples during this assessment. In addition, Golder collected 20 groundwater samples for analysis of VOCs (63 analytes per analysis) and TEH. It is Golder's opinion based on our review of the laboratory data and the QA/QC data, that an acceptable level of data completeness was achieved for the intended purpose.

Appendix G
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Analyte	Units	Concentration		Mean	RPD (%)
		Sample ID	Duplicate ID		
		SB-06 (MIP-27) 06-08	Duplicate-1 (SB-06)		
VOCs					
1,2,4-Trimethylbenzene	ug/kg	691	886	788.5	24.7
n-Butylbenzene	ug/kg	4150	5680	4915	31.1
sec-Butylbenzene	ug/kg	683	881	782	25.3

Analyte	Units	Concentration		Mean	RPD (%)
		Sample ID	Duplicate ID		
		SB-08 (MIP-25) 02-04	Duplicate-2 (SB-08)		
Hydrocarbons					
Diesel (C12-C22)	mg/kg	ND	ND	NC	NC
Gasoline	mg/kg	ND	ND	NC	NC
Motor Oil	mg/kg	ND	ND	NC	NC
Total Extractable Petroleum Hydrocarbons	mg/kg	ND	ND	NC	NC
Oil & Grease, Total Rec	mg/kg	170	140	155	19.4
Metals					
Arsenic	mg/kg	ND	ND	NC	NC
Barium	mg/kg	78.5	71.7	75.1	9.1
Cadmium	mg/kg	ND	ND	NC	NC
Chromium	mg/kg	17.4	16.1	16.75	7.8
Lead	mg/kg	ND	ND	NC	NC
Selenium	mg/kg	ND	ND	NC	NC
Silver	mg/kg	ND	ND	NC	NC
Mercury	mg/kg	ND	ND	NC	NC
VOCs					
Various VOCs	ug/kg	ND	ND	NC	NC

Analyte	Units	Concentration		Mean	RPD (%)
		Sample ID	Duplicate ID		
		SB-12 (MIP-16a) 04-08	Duplicate-3 (SB-12)		
Hydrocarbons					
Diesel (C12-C22)	mg/kg	5,170	3,370	4,270	42.2
Gasoline	mg/kg	162	103	132.5	44.5
Motor Oil	mg/kg	12,000	7,890	9,945	41.3
Total Extractable Petroleum Hydrocarbons	mg/kg	17,300	11,400	14,350	41.1
Oil & Grease, Total Rec	mg/kg	20,000	25,000	22,500	22.2
Metals					
Arsenic	mg/kg	ND	ND	NC	NC
Barium	mg/kg	152	161	156.5	5.8
Cadmium	mg/kg	ND	ND	NC	NC
Chromium	mg/kg	18.1	18.6	18.35	2.7
Lead	mg/kg	11	8.64	9.82	24.0
Selenium	mg/kg	ND	ND	NC	NC
Silver	mg/kg	ND	1.25	NC	NC
Mercury	mg/kg	ND	ND	NC	NC
VOCs					
1,2,4-Trimethylbenzene	ug/kg	1,090	904	997	18.7

Notes:
RPD = relative percent difference
VOCs = volatile organic compounds
NC = not calculated
ND = not detected above laboratory reporting limits
mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram

Appendix G
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Analyte	Units	Concentration		Mean	RPD (%)
		Sample ID	Duplicate ID		
		SB-16 (MIP-05) 12-14	Duplicate-4 (SB-16)		
Hydrocarbons					
Diesel (C12-C22)	mg/kg	ND	ND	NC	NC
Gasoline	mg/kg	ND	ND	NC	NC
Motor Oil	mg/kg	ND	ND	NC	NC
Total Extractable Petroleum Hydrocarbons	mg/kg	ND	ND	NC	NC
Oil & Grease, Total Rec	mg/kg	140	ND	NC	NC
VOCs					
Various VOCs	ug/kg	ND	ND	NC	NC
Analyte	**Units**	**Concentration**		**Mean**	**RPD (%)**
		Sample ID	**Duplicate ID**		
		SB-17 (MIP-20) 10-12	**Duplicate-5 (SB-17)**		
Hydrocarbons					
Diesel (C12-C22)	mg/kg	ND	ND	NC	NC
Gasoline	mg/kg	ND	ND	NC	NC
Motor Oil	mg/kg	ND	ND	NC	NC
Total Extractable Petroleum Hydrocarbons	mg/kg	ND	ND	NC	NC
Oil & Grease, Total Rec	mg/kg	110	140	125	24.0
VOCs					
Various VOCs	ug/kg	ND	ND	NC	NC
Analyte	**Units**	**Concentration**		**Mean**	**RPD (%)**
		Sample ID	**Duplicate ID**		
		MW-25D	**DUP-1 (MW-25D)**		
Hydrocarbons					
Diesel (C12-C22)	ug/L	ND	ND	NC	NC
Gasoline	ug/L	ND	ND	NC	NC
Motor Oil	ug/L	ND	ND	NC	NC
Total Extractable Petroleum Hydrocarbons	ug/L	ND	ND	NC	NC
VOCs					
Trichloroethene	ug/L	61	61.6	61.3	1.0
cis-1,2-Dichloroethene	ug/L	28.3	29.6	28.95	4.5
Vinyl Chloride	ug/L	15.1	15.6	15.35	3.3
Acetone	ug/L	26.5	25.6	26.05	3.5
Analyte	**Units**	**Concentration**		**Mean**	**RPD (%)**
		Sample ID	**Duplicate ID**		
		MW-23	**DUP-2 (MW-23)**		
Hydrocarbons					
Diesel (C12-C22)	ug/L	9,240	7,860	8,550	16.1
Gasoline	ug/L	1,780	1,460	1,620	19.8
Motor Oil	ug/L	839	822	830.5	2.0
Total Extractable Petroleum Hydrocarbons	ug/L	11,900	10,100	11,000	16.4
VOCs					
1,1-Dichloroethane	ug/L	4.85	8.7	6.775	**56.8**
1,2,4-Trimethylbenzene	ug/L	65.5	27.8	46.65	**80.8**
Chloroethane	ug/L	418	327	372.5	24.4
Ethylbenzene	ug/L	3.63	ND	NC	NC
Isopropylbenzene	ug/L	12.8	8	10.4	**46.2**
Naphthalene	ug/L	9.85	ND	NC	NC
n-Butylbenzene	ug/L	4.77	ND	NC	NC
n-Propylbenzene	ug/L	17.7	11	14.35	**46.7**
sec-Butylbenzene	ug/L	7.15	5.15	6.15	**32.5**
tert-Butylbenzene	ug/L	1.78	ND	NC	NC
trans-1,2-Dichloroethene	ug/L	2.25	ND	NC	NC
Xylenes, Total	ug/L	3.43	ND	NC	NC

Notes:
RPD = relative percent difference
VOCs = volatile organic compounds
NC = not calculated
ND = not detected above laboratory reporting limits
mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram
Bold indicates an exceedance of the acceptable RPD

Prepared by: ATK
Checked by WAD
Reviewed by: APTM

1.0 QUALITY ASSURANCE/QUALITY CONTROL

1.1 Introduction

Golder performed a Quality Assurance/Quality Control (QA/QC) data evaluation review on inorganic and organic laboratory data submitted for 6 soil samples, 72 groundwater samples (including 8 field duplicate samples), and 5 trip blank samples collected at the former Electrolux Home Products, Inc. (Electrolux) facility located in Jefferson, Iowa between November 2012 and March 2013. Sample results are summarized in Tables 9, 10 and 11.

Golder evaluated the precision, accuracy, and completeness of the analytical data.

- Precision is the measure of variability of individual sample measurements. Precision was evaluated through collection and analysis of field duplicate samples and A comparison of primary sample results to duplicate sample results. The laboratory also analyzed trip blank samples to evaluate potential contamination during shipping of the samples.
- Accuracy is the degree of agreement for a measurement with an accepted reference or true value and is a measure of the bias in a system. Evaluation of accuracy included an examination of analytical holding times, gas chromatography/mass spectrometry (GC/MS) instrument performance checks, instrument calibrations, method blanks, surrogate spikes, laboratory control spike/spike duplicate (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) analyses, and internal standards for GC/MS analysis.
- Completeness is the ratio of total number of samples analyzed and validated as acceptable to the number of samples submitted for analysis. Completeness also includes an evaluation of the completeness of the laboratory data package submitted for validation. Golder assessed the completeness of the laboratory data package but did not perform a full data validation evaluation.

1.2 Precision

To evaluate precision, Golder collected field QC samples at a frequency of approximately 10% in accordance with the Work Plan (SOP-6), which equated to seven groundwater duplicate samples. Golder calculated the Relative Percent Difference (RPD), which is defined as the difference between two duplicate samples divided by the mean and expressed as a percentage. Golder considered acceptable RPD limits for field duplicates with analyte concentrations greater than five times the minimum reporting level (MRL) to be less than or equal to 30% for aqueous samples. Golder considered the acceptable RPD limits for field duplicates with analyte concentrations less than five times the MRL to be less than or equal to the MRL. Results of the field duplicate analysis are presented in Table 1 of this appendix. All the groundwater duplicates were within the RPD acceptable limits of 30%.

Golder submitted a trip blank with each cooler containing samples for analysis of volatile organic compounds (VOCs) to screen for shipping and/or bottle related contamination. The laboratory did not detect any analytes at a concentration above the laboratory reporting limits in the trip blanks.

1.3 Accuracy

Laboratory QC included GC/MS instrument performance checks, instrument calibrations, method blanks, surrogate spikes, laboratory control sample/laboratory control sample duplicate (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) analyses, and internal standards. The laboratory completed the following QC tests:

- Instrument performance checks to check mass resolution and proper identification of target analytes during GC/MS analyses.
- Instrument calibrations to measure system performance throughout the analytical procedure and established the quantitation criteria for the analytes.
- Method blanks to identify compounds which could be introduced during the preparation, extraction, or analysis phases of the method.
- Surrogates, compounds structurally similar to target analytes but generally not found in nature, to demonstrate the percent recovery of the organic method by the laboratory.

The laboratory compared the MS/MSD and LCS/LCSD recoveries to published and laboratory control-charted QC limits to demonstrate acceptable compound recovery. Internal standards were analyzed to ensure the stability of the GC/MS instrument sensitivity and response during every analytical run. Golder reviewed the laboratory analytical data and it is Golder's opinion that the laboratory data accuracy is acceptable for their intended use.

1.4 Completeness

Evaluation of completeness included a review of the chain-of-custody records, a review of laboratory analytical methods and detection limits, a review of project narratives, and a review of laboratory data deliverables for data validation compliance. The data quality objective for this site laboratory data was to achieve 90-100% completeness of the data collected.

1.4.1 Soil

The TestAmerica report, dated November 26, 2012, Lab No. CVK1116, presents the results for six soil samples collected between November 12-15, 2012 and analyzed for VOCs. TestAmerica received the samples in good condition, at a temperature of 0.1 degrees Celsius (^{0}C), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis. The laboratory analysis QA/QC certification form indicates the following:

- All six soil samples had "CIN" flags for acetone and methylene chloride and an "ICV" flag for chloroethane. The "CIN" flag indicates that the % Relative Standard Deviation (RSD) for this compound was above 15%. The average % RSD for all compounds in the calibration met the 15% criteria specified in EPA methods 8260B/8270C. Therefore, the data is considered valid. The Initial Calibration Verification (ICV) flag indicates that ICV recovery was above the control limits. However, the analyte was not detected, therefore the data was not impacted.

1.4.2 Groundwater

The TestAmerica report dated December 28, 2012, Lab No. CVL0713, presents the results for 14 groundwater samples, including 4 duplicates, analyzed for VOCs and TEH collected on December 10 and 11, 2012. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 1.4°C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis. The laboratory analysis QA/QC certification form indicates the following:

- TestAmerica reported a "C9" flag for carbon disulfide in sample Duplicate-4, which indicates that the calibrated verification recovery was outside the method control limits for this analyte. The lab control sample for this analyte met the instrument continuing calibration verification (CCV) acceptance criteria, and was used to validate the batch.
- TestAmerica reported a "Q" flag for several detections of motor oil, diesel and/or gasoline in samples MW-47D, Duplicate-1, MW-28, Duplicate-2, Duplicate-3, Duplicate-4, and MW-23, indicating that it was a poor chromatographic match to the standard.

The TestAmerica report dated December 28, 2012, Lab No. CVL0764, presents the results for seventeen groundwater samples analyzed for VOCs, TEH, EPH and VPH collected on December 12, 2012. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.8°C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis. The laboratory analysis QA/QC certification form indicates the following:

- TestAmerica reported a "C9" flag for carbon disulfide for all the samples in the report, including a few detected results. This flag indicates that the calibrated verification recovery was outside the method control limits for this analyte. The lab control sample for this analyte met CCV acceptance criteria, and was used to validate the batch.
- TestAmerica also reported a "Q" flag for several detections of motor oil, diesel and/or gasoline in samples MW-55S,MW-9,MW-39, MW-55D, MW-44, MW-54, MW-36S, MW-35, MW-21, MW-52, MW-51 indicating that it was a poor chromatographic match to the standard.

The TestAmerica report, dated January 8, 2013, Lab No. CVL0908, presents the results for 23 groundwater samples analyzed for VOCs and TEH collected on December 10 and 13, 2012. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 1.1 ^{0}C and 1.0 ^{0}C (two coolers), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis. The laboratory analysis QA/QC certification form indicates the following:

- TestAmerica reported a "C9" flag for carbon disulfide, 1,1-dichloroethene, trans-1,2-dichlorethene for samples MW-36D, MW-42, MW-43S, MW-43I, MW-43D, MW-41, MW-48, MW-34, MW-40, MW-49, MW-32, MW-18, MW-47S, MW-27. This flag indicates that the calibrated verification recovery was outside the method control limits for these analytes. The lab control sample for these analytes met CCV acceptance criteria, and was used to validate the batch.

- TestAmerica reported a “C” flag for 1,1-dichloropropane in MW-36D, MW-42, MW-43S, MW- 43I,MW-43D, MW-41, MW-48, MW-34, MW-40, MW-49, MW-32, MW-18, MW-47S, and MW-27. The “C” flag indicates that the calibration verification recovery was above the method control limit for this analyte. Since the analyte was not detected, the data was not impacted.

- TestAmerica reported a “B” and/or “Q” flags for motor oil, diesel, and/or gasoline in MW-36D, MW-22, MW-42, MW-34, MW-40, MW-47S, and MW-25S. The “B” flag indicates that the analyte was detected in the associate method blank and the “Q” flag indicates a poor chromatographic match to the standard. Both flags indicate that the reported concentrations are estimated values.

- Test America reported a “Z6” flag indicating that a surrogate recovery was outside of the established control limits for samples MW-47S, MW-12, MW-41.

The TestAmerica report, dated April 5, 2013, Lab No. 310-4969-1, presents the results for 10 groundwater samples analyzed for VOCs and TEH collected on March 26 and 27, 2013. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 1.6 ^{0}C and 4.6 ^{0}C (two coolers), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

It is Golder’s opinion based on our review of the laboratory data and the QA/QC data, that an acceptable level of data completeness was achieved for the intended purpose.

Appendix H
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Sample Date: December 2012	Concentration (ug/L)			
	Sample ID	Duplicate ID		
Analyte	MW-47D	Duplicate-1	Mean (ug/L)	RPD (%)
OA-2				
Diesel (C12-C22)	< 300	< 300	NC	NC
Gasoline	< 300	< 300	NC	NC
Motor Oil	733	955	844.0	26.3
SW8260B				
Tetrachloroethene	< 1000	< 1000	NC	NC
Trichloroethene	42,700	43,300	43,000	1.4
cis-1,2-Dichloroethene	4,900	5,480	5,190	11.2
Vinyl Chloride	< 1000	< 1000	NC	NC
1,1,1-Trichloroethane	< 1000	< 1000	NC	NC
1,1,2-Trichloroethane	< 1000	< 1000	NC	NC
1,1-Dichloroethane	< 1000	< 1000	NC	NC
1,1-Dichloroethene	< 2000	< 2000	NC	NC
1,2,4-Trimethylbenzene	< 1000	< 1000	NC	NC
1,2-Dichloroethane	< 1000	< 1000	NC	NC
1,3,5-Trimethylbenzene	< 1000	< 1000	NC	NC
2-Butanone	< 10000	< 10000	NC	NC
Acetone	< 10000	< 10000	NC	NC
Benzene	< 500	< 500	NC	NC
Carbon Disulfide	< 1000	< 1000	NC	NC
Chloroethane	< 4000	< 4000	NC	NC
Chloroform	< 1000	< 1000	NC	NC
Chloromethane	< 3000	< 3000	NC	NC
Cymene	< 1000	< 1000	NC	NC
Ethylbenzene	< 1000	< 1000	NC	NC
Isopropylbenzene	< 1000	< 1000	NC	NC
Naphthalene	< 5000	< 5000	NC	NC
n-Butylbenzene	< 1000	< 1000	NC	NC
n-Propylbenzene	< 1000	< 1000	NC	NC
sec-Butylbenzene	< 1000	< 1000	NC	NC
tert-Butylbenzene	< 1000	< 1000	NC	NC
Toluene	< 1000	< 1000	NC	NC
trans-1,2-Dichloroethene	< 1000	< 1000	NC	NC
Xylenes, Total	< 3000	< 3000	NC	NC

Appendix H
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Sample Date: December 2012	Concentration (ug/L)			
	Sample ID	Duplicate ID		
Analyte	MW-46	Duplicate-2	Mean (ug/L)	RPD (%)
OA-2				
Diesel (C12-C22)	< 300	< 300	NC	NC
Gasoline	< 300	967	NC	NC
Motor Oil	< 300	< 300	NC	NC
SW8260B				
Tetrachloroethene	10.5	13.2	11.9	22.8
Trichloroethene	15,400	16,100	15750	4.4
cis-1,2-Dichloroethene	< 100	38.7	NC	NC
Vinyl Chloride	< 1.00	< 1.00	NC	NC
1,1,1-Trichloroethane	< 1.00	< 1.00	NC	NC
1,1,2-Trichloroethane	< 1.00	< 1.00	NC	NC
1,1-Dichloroethane	< 1.00	< 1.00	NC	NC
1,1-Dichloroethene	6.44	5.85	6.15	9.6
1,2,4-Trimethylbenzene	< 1.00	< 1.00	NC	NC
1,2-Dichloroethane	< 1.00	< 1.00	NC	NC
1,3,5-Trimethylbenzene	< 1.00	< 1.00	NC	NC
2-Butanone	< 10.0	< 10.0	NC	NC
Acetone	< 10.0	< 10.0	NC	NC
Benzene	< 0.50	< 0.50	NC	NC
Carbon Disulfide	< 1.00	< 1.00	NC	NC
Chloroethane	< 4.00	< 4.00	NC	NC
Chloroform	1.88	1.72	1.80	8.9
Chloromethane	< 3.00	< 3.00	NC	NC
Cymene	< 1.00	< 1.00	NC	NC
Ethylbenzene	< 1.00	< 1.00	NC	NC
Isopropylbenzene	< 1.00	< 1.00	NC	NC
Naphthalene	< 5.00	< 5.00	NC	NC
n-Butylbenzene	< 1.00	< 1.00	NC	NC
n-Propylbenzene	< 1.00	< 1.00	NC	NC
sec-Butylbenzene	< 1.00	< 1.00	NC	NC
tert-Butylbenzene	< 1.00	< 1.00	NC	NC
Toluene	< 1.00	< 1.00	NC	NC
trans-1,2-Dichloroethene	4.09	3.11	3.60	27.2
Xylenes, Total	< 3.00	< 3.00	NC	NC

Appendix H
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Sample Date: December 2012	Concentration (ug/L)			
	Sample ID	Duplicate ID		
Analyte	MW-45	Duplicate-3	Mean (ug/L)	RPD (%)
OA-2				
Diesel (C12-C22)	< 300	< 300	NC	NC
Gasoline	< 300	430	NC	NC
Motor Oil	< 300	< 300	NC	NC
SW8260B				
Tetrachloroethene	70.3	92	81.2	26.7
Trichloroethene	32,500	29,000	30750	11.4
cis-1,2-Dichloroethene	1,040	1,070	1055	2.8
Vinyl Chloride	6.15	6.27	6.21	1.9
1,1,1-Trichloroethane	2.89	3.05	2.97	5.4
1,1,2-Trichloroethane	1.6	1.75	1.68	9.0
1,1-Dichloroethane	2.61	2.47	2.54	5.5
1,1-Dichloroethene	27.7	26.7	27.2	3.7
1,2,4-Trimethylbenzene	< 1.00	< 1.00	NC	NC
1,2-Dichloroethane	1.41	1.29	1.35	8.9
1,3,5-Trimethylbenzene	< 1.00	< 1.00	NC	NC
2-Butanone	< 10.0	< 10.0	NC	NC
Acetone	11.4	< 10.0	NC	NC
Benzene	0.88	0.85	0.87	3.5
Carbon Disulfide	< 1.00	< 1.00	NC	NC
Chloroethane	< 4.00	< 4.00	NC	NC
Chloroform	4.38	4.32	4.35	1.4
Chloromethane	< 3.00	< 3.00	NC	NC
Cymene	< 1.00	< 1.00	NC	NC
Ethylbenzene	1.22	1.43	1.33	15.8
Isopropylbenzene	< 1.00	< 1.00	NC	NC
Naphthalene	< 5.00	< 5.00	NC	NC
n-Butylbenzene	< 1.00	< 1.00	NC	NC
n-Propylbenzene	< 1.00	< 1.00	NC	NC
sec-Butylbenzene	< 1.00	< 1.00	NC	NC
tert-Butylbenzene	< 1.00	< 1.00	NC	NC
Toluene	2.23	2.36	2.30	5.7
trans-1,2-Dichloroethene	15.4	18.7	17.1	19.4
Xylenes, Total	6.9	8.65	7.78	22.5

Appendix H
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Sample Date: December 2012	Concentration (ug/L)			
	Sample ID	Duplicate ID		
Analyte	MW-23	Duplicate-4	Mean (ug/L)	RPD (%)
OA-2				
Diesel (C12-C22)	11,200	14,500	12850	25.7
Gasoline	1,540	1,920	1730	22.0
Motor Oil	852	883	868	3.6
SW8260B				
Tetrachloroethene	< 1.00	< 10.0	NC	NC
Trichloroethene	< 1.00	< 10.0	NC	NC
cis-1,2-Dichloroethene	< 1.00	< 10.0	NC	NC
Vinyl Chloride	< 1.00	< 10.0	NC	NC
1,1,1-Trichloroethane	< 1.00	< 10.0	NC	NC
1,1,2-Trichloroethane	< 1.00	< 10.0	NC	NC
1,1-Dichloroethane	6.58	< 10.0	NC	NC
1,1-Dichloroethene	< 2.00	< 20.0	NC	NC
1,2,4-Trimethylbenzene	33.9	31.1	32.5	8.6
1,2-Dichloroethane	< 1.00	< 10.0	NC	NC
1,3,5-Trimethylbenzene	4.54	< 10.0	NC	NC
2-Butanone	< 10.0	< 100	NC	NC
Acetone	< 10.0	< 100	NC	NC
Benzene	< 0.50	< 5.00	NC	NC
Carbon Disulfide	< 1.00	< 10.0	NC	NC
Chloroethane	529	563	546	6.2
Chloroform	< 1.00	< 10.0	NC	NC
Chloromethane	< 3.00	< 30.0	NC	NC
Cymene	< 1.00	< 10.0	NC	NC
Ethylbenzene	3.45	< 10.0	NC	NC
Isopropylbenzene	10.9	10.0	10.5	8.6
Naphthalene	< 5.00	< 50.0	NC	NC
n-Butylbenzene	2.74	< 10.0	NC	NC
n-Propylbenzene	13.9	13.0	13.5	6.7
sec-Butylbenzene	5.56	< 10.0	NC	NC
tert-Butylbenzene	1.71	< 10.0	NC	NC
Toluene	1.05	< 10.0	NC	NC
trans-1,2-Dichloroethene	3.47	< 10.0	NC	NC
Xylenes, Total	4.25	< 30.0	NC	NC

Appendix H
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Sample Date: December 2012	Concentration (ug/L)			
	Sample ID	Duplicate ID		
Analyte	MW-55D	Dup 5	Mean (ug/L)	RPD (%)
OA-2				
Diesel (C12-C22)	< 300	NA	NC	NC
Gasoline	< 300	NA	NC	NC
Motor Oil	482	NA	NC	NC
SW8260B				
Tetrachloroethene	< 1.00	< 1.00	NC	NC
Trichloroethene	1.67	1.36	1.52	20.5
cis-1,2-Dichloroethene	< 1.00	< 1.00	NC	NC
Vinyl Chloride	< 1.00	< 1.00	NC	NC
1,1,1-Trichloroethane	< 1.00	< 1.00	NC	NC
1,1,2-Trichloroethane	< 1.00	< 1.00	NC	NC
1,1-Dichloroethane	< 1.00	< 1.00	NC	NC
1,1-Dichloroethene	< 2.00	< 2.00	NC	NC
1,2,4-Trimethylbenzene	< 1.00	< 1.00	NC	NC
1,2-Dichloroethane	< 1.00	< 1.00	NC	NC
1,3,5-Trimethylbenzene	< 1.00	< 1.00	NC	NC
2-Butanone	< 10.0	< 10.0	NC	NC
Acetone	< 10.0	< 10.0	NC	NC
Benzene	< 0.50	< 0.50	NC	NC
Carbon Disulfide	< 1.00	< 1.00	NC	NC
Chloroethane	< 4.00	< 4.00	NC	NC
Chloroform	< 1.00	< 1.00	NC	NC
Chloromethane	< 3.00	< 3.00	NC	NC
Cymene	< 1.00	< 1.00	NC	NC
Ethylbenzene	< 1.00	< 1.00	NC	NC
Isopropylbenzene	< 1.00	< 1.00	NC	NC
Naphthalene	< 5.00	< 5.00	NC	NC
n-Butylbenzene	< 1.00	< 1.00	NC	NC
n-Propylbenzene	< 1.00	< 1.00	NC	NC
sec-Butylbenzene	< 1.00	< 1.00	NC	NC
tert-Butylbenzene	< 1.00	< 1.00	NC	NC
Toluene	< 1.00	< 1.00	NC	NC
trans-1,2-Dichloroethene	< 1.00	< 1.00	NC	NC
Xylenes, Total	< 3.00	< 3.00	NC	NC

Appendix H
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Sample Date: December 2012	Concentration (ug/L)			
	Sample ID	Duplicate ID		
Analyte	MW-52	Dup 6	Mean (ug/L)	RPD (%)
OA-2				
Diesel (C12-C22)	1,890	NA	NC	NC
Gasoline	< 300	NA	NC	NC
Motor Oil	1,780	NA	NC	NC
SW8260B				
Tetrachloroethene	< 1.00	< 1.00	NC	NC
Trichloroethene	< 1.00	< 1.00	NC	NC
cis-1,2-Dichloroethene	1.09	1.11	1.10	1.8
Vinyl Chloride	< 1.00	< 1.00	NC	NC
1,1,1-Trichloroethane	< 1.00	< 1.00	NC	NC
1,1,2-Trichloroethane	< 1.00	< 1.00	NC	NC
1,1-Dichloroethane	< 1.00	< 1.00	NC	NC
1,1-Dichloroethene	< 2.00	< 2.00	NC	NC
1,2,4-Trimethylbenzene	< 1.00	< 1.00	NC	NC
1,2-Dichloroethane	< 1.00	< 1.00	NC	NC
1,3,5-Trimethylbenzene	< 1.00	< 1.00	NC	NC
2-Butanone	< 10.0	< 10.0	NC	NC
Acetone	< 10.0	< 10.0	NC	NC
Benzene	< 0.50	< 0.50	NC	NC
Carbon Disulfide	< 1.00	< 1.00	NC	NC
Chloroethane	< 4.00	< 4.00	NC	NC
Chloroform	< 1.00	< 1.00	NC	NC
Chloromethane	< 3.00	< 3.00	NC	NC
Cymene	< 1.00	< 1.00	NC	NC
Ethylbenzene	< 1.00	< 1.00	NC	NC
Isopropylbenzene	< 1.00	< 1.00	NC	NC
Naphthalene	< 5.00	< 5.00	NC	NC
n-Butylbenzene	< 1.00	< 1.00	NC	NC
n-Propylbenzene	< 1.00	< 1.00	NC	NC
sec-Butylbenzene	< 1.00	< 1.00	NC	NC
tert-Butylbenzene	< 1.00	< 1.00	NC	NC
Toluene	3.9	3.44	3.67	12.5
trans-1,2-Dichloroethene	< 1.00	< 1.00	NC	NC
Xylenes, Total	< 3.00	< 3.00	NC	NC

Appendix H
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Sample Date: March 2013	Concentration (ug/L)			
	Sample ID	Duplicate ID		
Analyte	MW-43D	Dup-01	Mean (ug/L)	RPD (%)
OA-2				
Diesel (C12-C22)	< 288	NA	NC	NC
Gasoline	< 288	NA	NC	NC
Motor Oil	< 288	NA	NC	NC
SW8260B				
Tetrachloroethene	< 1.00	< 1.00	NC	NC
Trichloroethene	4.70	4.65	4.68	1.1
cis-1,2-Dichloroethene	< 1.00	< 1.00	NC	NC
Vinyl Chloride	< 1.00	< 1.00	NC	NC
1,1,1-Trichloroethane	< 1.00	< 1.00	NC	NC
1,1,2-Trichloroethane	< 1.00	< 1.00	NC	NC
1,1-Dichloroethane	< 1.00	< 1.00	NC	NC
1,1-Dichloroethene	< 2.00	< 2.00	NC	NC
1,2,4-Trimethylbenzene	< 1.00	< 1.00	NC	NC
1,2-Dichloroethane	< 1.00	< 1.00	NC	NC
1,3,5-Trimethylbenzene	< 1.00	< 1.00	NC	NC
2-Butanone	< 10.0	< 10.0	NC	NC
Acetone	< 10.0	< 10.0	NC	NC
Benzene	< 0.500	< 0.500	NC	NC
Carbon Disulfide	< 1.00	< 1.00	NC	NC
Chloroethane	< 4.00	< 4.00	NC	NC
Chloroform	3.56	3.41	3.49	4.3
Chloromethane	< 3.00	< 3.00	NC	NC
Cymene	< 1.00	< 1.00	NC	NC
Ethylbenzene	< 1.00	< 1.00	NC	NC
Isopropylbenzene	< 1.00	< 1.00	NC	NC
Naphthalene	< 5.00	< 5.00	NC	NC
n-Butylbenzene	< 1.00	< 1.00	NC	NC
n-Propylbenzene	< 1.00	< 1.00	NC	NC
sec-Butylbenzene	< 1.00	< 1.00	NC	NC
tert-Butylbenzene	< 1.00	< 1.00	NC	NC
Toluene	< 1.00	< 1.00	NC	NC
trans-1,2-Dichloroethene	< 1.00	< 1.00	NC	NC
Xylenes, Total	< 3.00	< 3.00	NC	NC

Notes:
RPD = relative percent difference
SW8260B = volatile organic compound laboratory analytical method
OA-2 = total extractable hydrocarbons laboratory method
NC = not calculated
NA = not analyzed
ug/L = micrograms per liter
Bold indicates an exceedance of the acceptable RPD

Prepared by: ATK
Checked by MRH
Reviewed by: APTM

1.0 QUALITY ASSURANCE/QUALITY CONTROL

1.1 Introduction

Golder performed a Quality Assurance/Quality Control (QA/QC) data evaluation review on inorganic and organic laboratory data submitted for 18 groundwater samples (including 2 field duplicate samples), and 3 trip blank samples collected in October 2013 from the former Electrolux Home Products, Inc. (Electrolux) facility located in Jefferson, Iowa. Sample results are summarized in Tables 5 and 6.

Golder evaluated the precision, accuracy, and completeness of the analytical data.

- Precision is the measure of variability of individual sample measurements. Precision was evaluated through collection and analysis of field duplicate samples and a comparison of primary sample results to duplicate sample results. The laboratory also analyzed trip blank samples to evaluate potential contamination during shipping of the samples.
- Accuracy is the degree of agreement for a measurement with an accepted reference or true value and is a measure of the bias in a system. Evaluation of accuracy included an examination of analytical holding times, gas chromatography/mass spectrometry (GC/MS) instrument performance checks, instrument calibrations, method blanks, surrogate spikes, laboratory control spike/spike duplicate (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) analyses, and internal standards for GC/MS analysis.
- Completeness is the ratio of total number of samples analyzed and validated as acceptable to the number of samples submitted for analysis. Completeness also includes an evaluation of the completeness of the laboratory data package submitted for validation. Golder assessed the completeness of the laboratory data package but did not perform a full data validation evaluation.

1.2 Precision

To evaluate precision, Golder collected field QC samples at a frequency of approximately 10% in accordance with the Work Plan (SOP-6), which equated to two groundwater duplicate samples. Golder calculated the Relative Percent Difference (RPD), which is defined as the difference between two duplicate samples divided by the mean and expressed as a percentage. For field duplicates with analyte concentrations greater than five times the minimum reporting level (MRL), Golder considered acceptable RPD limits to be less than or equal to 30% for aqueous samples. For field duplicates with analyte concentrations less than or equal to five times the MRL, Golder considered the acceptable RPD limits to be less than or equal to the value of the MRL. Results of the field duplicate analysis are presented in Table 1 of this appendix. All the groundwater duplicates were within the RPD acceptable limits of 30%, except for the methane analysis of MW-63 and Dup-02. The concentration difference between the samples was 0.9 ug/l.

Golder submitted a trip blank with each cooler containing samples for analysis of volatile organic compounds (VOCs) to screen for shipping and/or bottle related contamination. The laboratory did not detect any analytes at a concentration above the laboratory reporting limits in the trip blanks, except for

bromomethane, which was detected in one trip blank at a concentration of 4.17 ug/L. Bromomethane was detected at similar concentrations in two samples (MW-28 and MW-29) in this cooler. It is Golder's opinion that these detections are indicative of laboratory contamination since bromomethane was detected in the trip blank and that bromomethane is not a site-related compound.

1.3 Accuracy

Laboratory QC included GC/MS instrument performance checks, instrument calibrations, method blanks, surrogate spikes, laboratory control sample/laboratory control sample duplicate (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) analyses, and internal standards. The laboratory completed the following QC tests:

- Instrument performance checks to check mass resolution and proper identification of target analytes during GC/MS analyses.
- Instrument calibrations to measure system performance throughout the analytical procedure and established the quantitation criteria for the analytes.
- Method blanks to identify compounds which could be introduced during the preparation, extraction, or analysis phases of the method.
- Surrogates, compounds structurally similar to target analytes but generally not found in nature, to demonstrate the percent recovery of the organic method by the laboratory.

The laboratory compared the MS/MSD and LCS/LCSD recoveries to published and laboratory control-charted QC limits to demonstrate acceptable compound recovery. Internal standards were analyzed to ensure the stability of the GC/MS instrument sensitivity and response during every analytical run. Golder reviewed the laboratory analytical QC data and it is Golder's opinion that the laboratory data accuracy is acceptable for their intended use.

1.4 Completeness

Evaluation of completeness included a review of the chain-of-custody records, a review of laboratory analytical methods and detection limits, a review of project narratives, and a review of laboratory data deliverables for data validation compliance. The data quality objective for this site laboratory data was to achieve 90-100% completeness of the data collected.

1.4.1 Groundwater

The TestAmerica report dated October 24, 2013, lab No. 310-17673, presents the results for seven groundwater samples, analyzed for VOCs, nitrate, nitrite, sulfate, total organic carbon (TOC), iron and manganese collected on October 10 and 11, 2013. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 1.3 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report dated November 14, 2013, Lab No. 310-17594, presents the results for six groundwater samples analyzed for VOCs, Nitrate, Nitrite, Sulfate, TOC, Iron and Manganese collected on October 10, 2013. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.8 ^{0}C and 1.3 ^{0}C (two coolers), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis. The laboratory analysis QA/QC certification form indicates the following:

- Method(s) 8260C: The method blank for preparation batch 28348 contained trichloroethene above the reporting limit (RL). The associated sample (MW-29) contained detects for this analyte at concentrations greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

The TestAmerica report, dated October 24, 2013, Lab No. 310-17470, presents the results for seven groundwater samples analyzed for VOCs, nitrate, nitrite, sulfate, TOC, iron and manganese collected on October 9, 2013. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.1 ^{0}C and 0.8 ^{0}C (two coolers), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The Microseeps report, dated October 21, 2013, Workorder 10340, presents the results for 13 groundwater samples analyzed for methane, ethane and ethene collected on October 9 and 10, 2013. Microseeps received the samples in good condition, at a temperature of 1 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The Microseeps report, dated October 24, 2013, Workorder 10364, presents the results for seven groundwater samples analyzed for Methane, Ethane and Ethene collected on October 11, 2013. According to the case narrative, Microseeps received the samples in good condition, at a temperature of 3 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

It is Golder's opinion based on our review of the laboratory data and the QA/QC data, that an acceptable level of data completeness was achieved for the intended purpose.

Appendix F
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Sample Date: October 2013	Concentration			
	Sample ID	Duplicate ID		
Analyte	**MW-63**	**Dup-02**	**Mean**	**RPD (%)**
Volatile Organic Compounds (ug/L)				
Tetrachloroethene	<1.00	<1.00	NC	NC
Trichloroethene	<1.00	<1.00	NC	NC
cis-1,2-Dichloroethene	<1.00	<1.00	NC	NC
Vinyl Chloride	<1.00	<1.00	NC	NC
1,1,1-Trichloroethane	<1.00	<1.00	NC	NC
1,1,2-Trichloroethane	<1.00	<1.00	NC	NC
1,1-Dichloroethane	<1.00	<1.00	NC	NC
1,1-Dichloroethene	<2.00	<2.00	NC	NC
1,2,4-Trimethylbenzene	<1.00	<1.00	NC	NC
1,2-Dichloroethane	<1.00	<1.00	NC	NC
1,3,5-Trimethylbenzene	<1.00	<1.00	NC	NC
2-Butanone	<10.0	<10.0	NC	NC
Acetone	<10.0	<10.0	NC	NC
Benzene	<0.50	<0.50	NC	NC
Carbon Disulfide	1.08	1.08	1.08	0.0
Chloroethane	<4.00	<4.00	NC	NC
Chloroform	<1.00	<1.00	NC	NC
Chloromethane	<3.00	<3.00	NC	NC
Cymene	<1.00	<1.00	NC	NC
Ethylbenzene	<1.00	<1.00	NC	NC
Isopropylbenzene	<1.00	<1.00	NC	NC
Naphthalene	<5.00	<5.00	NC	NC
n-Butylbenzene	<1.00	<1.00	NC	NC
n-Propylbenzene	<1.00	<1.00	NC	NC
sec-Butylbenzene	<1.00	<1.00	NC	NC
tert-Butylbenzene	<1.00	<1.00	NC	NC
Toluene	<1.00	<1.00	NC	NC
trans-1,2-Dichloroethene	<1.00	<1.00	NC	NC
Xylenes, Total	<3.00	<3.00	NC	NC
1,4-Dioxane	<2.00	<2.00	NC	NC
Metals (mg/L)				
Iron	<0.1	<0.1	NC	NC
Manganese	1.13	1.14	1.14	0.9
Natural Attenuation Parameters (mg/L)				
Nitrite as N	<0.1	<0.1	NC	NC
Nitrate as N	<0.1	<0.1	NC	NC
Sulfate	160	161	160.5	0.6
Total Organic Carbon	2.49	2.45	2.47	1.6
Dissolved Gases (ug/L)				
Methane	1.9	3.9	2.9	69.0
Ethane	0.26	0.27	0.27	3.8
Ethene	0.28	0.24	0.26	15.4

Appendix F
Electrolux Jefferson
Table 1
FIELD DUPLICATE ANALYSIS

Sample Date: October 2013	Concentration			
	Sample ID	Duplicate ID		
Analyte	**MW-64**	**Dup-01**	**Mean**	**RPD (%)**
Volatile Organic Compounds (ug/L)				
Tetrachloroethene	<1.00	<1.00	NC	NC
Trichloroethene	196	175	185.5	11.3
cis-1,2-Dichloroethene	1.24	1.06	1.15	15.7
Vinyl Chloride	<1.00	<1.00	NC	NC
1,1,1-Trichloroethane	<1.00	<1.00	NC	NC
1,1,2-Trichloroethane	<1.00	<1.00	NC	NC
1,1-Dichloroethane	<1.00	<1.00	NC	NC
1,1-Dichloroethene	<2.00	<2.00	NC	NC
1,2,4-Trimethylbenzene	<1.00	<1.00	NC	NC
1,2-Dichloroethane	<1.00	<1.00	NC	NC
1,3,5-Trimethylbenzene	<1.00	<1.00	NC	NC
2-Butanone	<10.0	<10.0	NC	NC
Acetone	<10.0	<10.0	NC	NC
Benzene	<0.50	<0.50	NC	NC
Carbon Disulfide	<1.00	<1.00	NC	NC
Chloroethane	<4.00	<4.00	NC	NC
Chloroform	<1.00	<1.00	NC	NC
Chloromethane	<3.00	<3.00	NC	NC
Cymene	<1.00	<1.00	NC	NC
Ethylbenzene	<1.00	<1.00	NC	NC
Isopropylbenzene	<1.00	<1.00	NC	NC
Naphthalene	<5.00	<5.00	NC	NC
n-Butylbenzene	<1.00	<1.00	NC	NC
n-Propylbenzene	<1.00	<1.00	NC	NC
sec-Butylbenzene	<1.00	<1.00	NC	NC
tert-Butylbenzene	<1.00	<1.00	NC	NC
Toluene	<1.00	<1.00	NC	NC
trans-1,2-Dichloroethene	<1.00	<1.00	NC	NC
Xylenes, Total	<3.00	<3.00	NC	NC
1,4-Dioxane	<2.00	<2.00	NC	NC
Metals (mg/L)				
Iron	<0.1	<0.1	NC	NC
Manganese	0.408	0.4	0.404	2.0
Natural Attenuation Parameters (mg/L)				
Nitrite as N	<0.1	<0.1	NC	NC
Nitrate as N	<0.1	<0.1	NC	NC
Sulfate	61.5	60.4	61.0	1.8
Total Organic Carbon	2.71	2.5	2.61	8.1
Dissolved Gases (ug/L)				
Methane	4.1	5	4.6	19.8
Ethane	0.95	0.95	1.0	0.0
Ethene	0.96	0.97	0.97	1.0

Notes:
RPD = relative percent difference
NC = not calculated
NA = not analyzed
ug/L = micrograms per liter
mg/L = milligrams per liter
Bold indicates an exceedance of the acceptable RPD

Prepared by: ATK
Checked by CJS
Reviewed by: APTM

1.0 QUALITY ASSURANCE/QUALITY CONTROL

1.1 Introduction

Golder performed a Quality Assurance/Quality Control (QA/QC) data evaluation review on inorganic and organic laboratory data submitted for 84 groundwater samples (including 10 field duplicate samples), and 16 trip blank samples collected between April 2014 and July 2016 from the former Electrolux Home Products, Inc. (Electrolux) facility located in Jefferson, Iowa. Sample results are summarized in Tables 5 and 7.

Golder evaluated the precision, accuracy, and completeness of the analytical data.

- Precision is the measure of variability of individual sample measurements. Precision was evaluated through collection and analysis of field duplicate samples and a comparison of primary sample results to duplicate sample results. The laboratory also analyzed trip blank samples to evaluate potential contamination during shipping of the samples.
- Accuracy is the degree of agreement for a measurement with an accepted reference or true value and is a measure of the bias in a system. Evaluation of accuracy included an examination of analytical holding times, gas chromatography/mass spectrometry (GC/MS) instrument performance checks, instrument calibrations, method blanks, surrogate spikes, laboratory control spike/spike duplicate (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) analyses, and internal standards for GC/MS analysis.
- Completeness is the ratio of total number of samples analyzed and validated as acceptable to the number of samples submitted for analysis. Completeness also includes an evaluation of the completeness of the laboratory data package submitted for validation. Golder assessed the completeness of the laboratory data package but did not perform a full data validation evaluation.

1.2 Precision

To evaluate precision, Golder collected field duplicate samples at a frequency of not less than 10% of the total number of primary samples collected in accordance with SOP-2. Golder calculated the relative percent difference (RPD), which is defined as the difference between two duplicate samples divided by the mean and expressed as a percentage. For field duplicates with analyte concentrations greater than five times the minimum reporting level (MRL), Golder considered acceptable RPD criteria to be less than or equal to 30% for aqueous samples. For field duplicates with analyte concentrations less than or equal to five times the MRL, Golder considered the acceptable precision if the difference in values was less than or equal to the value of the MRL. Results of the field duplicate analysis are presented in Table 1 of this appendix. Based on the RPD analysis, the overall laboratory precision is acceptable for its intended purposes. One duplicate sample from July 2014 did not meet the RPD criteria. Golder attributes this to a field sample collection issue rather than lab precision. Golder has excluded the field duplicate lab results since they are much lower than other samples from this location. The other duplicate sample from July

2014 was within the all the RPD acceptance criteria except for one analyte. All RPD acceptance criteria were met in the duplicate samples from October and December 2014, March 2015, October 2015 and July 2016.

Golder submitted a trip blank with each cooler containing samples for analysis of volatile organic compounds (VOCs) to screen for shipping and/or bottle related contamination. The laboratory did not detect any analytes at a concentration above the laboratory reporting limits in the trip blanks from 2014 to 2016.

1.3 Accuracy

Laboratory QC included GC/MS instrument performance checks, instrument calibrations, method blanks, surrogate spikes, laboratory control sample/laboratory control sample duplicate (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) analyses, and internal standards. The laboratory completed the following QC tests:

- Instrument performance checks to check mass resolution and proper identification of target analytes during GC/MS analyses.
- Instrument calibrations to measure system performance throughout the analytical procedure and established the quantitation criteria for the analytes.
- Method blanks to identify compounds which could be introduced during the preparation, extraction, or analysis phases of the method.
- Surrogates, compounds structurally similar to target analytes but generally not found in nature, to demonstrate the percent recovery of the organic method by the laboratory.

The laboratory compared the MS/MSD and LCS/LCSD recoveries to published and laboratory control-charted QC limits to demonstrate acceptable compound recovery. Internal standards were analyzed to ensure the stability of the GC/MS instrument sensitivity and response during every analytical run. Golder reviewed the laboratory analytical QC data and it is Golder's opinion that the laboratory data accuracy is acceptable for their intended use.

1.4 Completeness

Evaluation of completeness included a review of the chain-of-custody records, a review of laboratory analytical methods and detection limits, a review of project narratives, and a review of laboratory data deliverables for data validation compliance. The data quality objective for this site laboratory data was to achieve 90-100% completeness of the data collected.

1.4.1 Groundwater Laboratory Report QC Summary – April 2014 Sampling Event

The Microseeps report, dated May 8, 2014, workorder 12016, presents the results for 23 groundwater samples collected between April 22-25, 2014 and analyzed for methane, ethane and ethene. Microseeps received the samples in good condition, at a temperature of 2^0C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report dated May 2, 2014, lab No. 310-29158, presents the results for three groundwater samples collected on April 22, 2014 and analyzed for VOCs, nitrate, nitrite, sulfate, chloride, total organic carbon (TOC), iron and manganese. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.1 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report dated May 6, 2014, Lab No. 310-29313, presents the results for five groundwater samples collected on April 23, 2013 and analyzed for VOCs, nitrate, nitrite, sulfate, chloride, total organic carbon (TOC), iron and manganese. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 3.4 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated May 6, 2014, Lab No. 310-29420, presents the results for ten groundwater samples collected on April 24, 2014 and analyzed for VOCs, nitrate, nitrite, sulfate, chloride, TOC, iron and manganese. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.0 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated May 6, 2014, Lab No. 310-29499, presents the results for five groundwater samples collected on April 25, 2014 and analyzed for VOCs, nitrate, nitrite, sulfate, chloride, TOC, iron and manganese. TestAmerica received the samples in good condition, at a temperature of 0.5 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

1.4.2 Groundwater Laboratory Report QC Summary – July 2014 Sampling Event

The Microseeps report, dated July 31, 2014, work order 12784, presents the results for 23 groundwater samples collected between July 15-18, 2014 and analyzed for methane, ethane and ethene. Microseeps received the samples in good condition, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated July 24, 2014, work order 310-34864, presents the results for two groundwater samples collected on July 15, 2014 and analyzed for VOCs, nitrate, nitrite, sulfate, chloride,

TOC, iron and manganese. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.9 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated July 24, 2014, Lab No. 310-35011, presents the results for seven groundwater samples collected on July 16, 2014 and analyzed for VOCs, nitrate, nitrite, sulfate, chloride, TOC, iron and manganese. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.6 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated July 31, 2014, Lab No. 310-35091, presents the results for nine groundwater samples collected on July 17, 2014 and analyzed for VOCs, nitrate, nitrite, sulfate, chloride, TOC, iron and manganese. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.0 ^{0}C and 1.6 ^{0}C (two coolers), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated July 31, 2014, Lab No. 310-35191, presents the results for five groundwater samples collected on July 18, 2014 and analyzed for VOCs, nitrate, nitrite, sulfate, chloride, TOC, iron and manganese. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.1 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

1.4.3 Groundwater Laboratory Report QC Summary – October 2014 Sampling Event

The Microseeps report, dated October 24, 2014, work order 13619, presents the results for 23 groundwater samples collected between October 7 -10, 2014 and analyzed for methane, ethane and ethene. Microseeps received the samples in good condition, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated October 20, 2014, Lab No. 310-40818, presents the results for three groundwater samples analyzed for VOCs, nitrate, nitrite, sulfate, chloride, TOC, iron and manganese collected on October 7, 2014. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of -0.2 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated October 21, 2014, Lab No. 310-40985, presents the results for four groundwater samples analyzed for VOCs, nitrate, nitrite, sulfate, chloride, TOC, iron and manganese collected on October 8, 2014. According to the case narrative, TestAmerica received the samples in good

condition, at a temperature of 0.6 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated October 22, 2014, Lab No. 310-41134, presents the results for eight groundwater samples collected on October 9, 2014 and analyzed for VOCs, nitrate, nitrite, sulfate, chloride, TOC, iron and manganese. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of -0.5 ^{0}C and 0.3 ^{0}C (two coolers), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated October 24, 2014, Lab No. 310-41248, presents the results for eight groundwater samples collected on October 10, 2014 and analyzed for VOCs, nitrate, nitrite, sulfate, chloride, TOC, iron and manganese. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 0.2 ^{0}C and 0.3 ^{0}C (two coolers), in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

1.4.4 Groundwater Laboratory Report QC Summary – December 2014 – July 2016 Sampling Events

The TestAmerica report, dated December 31, 2014, Lab No. 310-46049, presents the results for three groundwater samples collected on December 18, 2014 analyzed for VOCs sulfate, chloride, calcium, iron, magnesium, manganese, potassium sodium, TOC, alkalinity, nitrate and nitrite. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 2.5 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis

The TestAmerica report, dated April 7, 2015, Lab No. 310-51636, presents the results for three groundwater samples collected on March 24, 2015 and analyzed for VOCs, sulfate, chloride, calcium, iron, magnesium, manganese, potassium sodium, TOC, alkalinity, nitrate and nitrite. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of and 2.7 ^{0}C, in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis except for method blank contamination of cis-1,2-DCE above the reporting limit. The detected cis-1,2-DCE sample results are more than 10x the reporting limit, so the result is acceptable for its intended use.

The TestAmerica report, dated November 19, 2015, Lab No. 310-68678, presents the results for three groundwater samples analyzed for VOCs and collected on November 9, 2015. According to the case narrative, TestAmerica received the samples in good condition, at a temperature of 3.1 ^{0}C in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

The TestAmerica report, dated July 7, 2016, Lab No. 310-84079, presents the results for four groundwater samples collected on July 1, 2016 and analyzed for VOCs. According to the case narrative, TestAmerica

received the samples in good condition, at a temperature of 6.0 ^{0}C in accordance with the chain of custody, and did not encounter significant deviations during the extraction and analysis.

2.0 SUMMARY

It is Golder's opinion based on our review of the laboratory data and the RPD analysis, that an acceptable level of data precision, accuracy and completeness was achieved for the groundwater laboratory reports between April 2014 and July 2016.

Appendix K
Table 1
Groundwater Field Duplicate Relative Percent Difference Analysis

Analyte	Units	Concentration		Mean	RPD (%)	Difference in Concentration if RPD > 30%	Comment
		Sample ID	Duplicate ID				
		MW-47D	Dup-01				
		4/24/2014	4/24/2014				
Volatile Organic Compounds (VOCs)							
1,1-Dichloroethene	ug/L	176	175	175.5	0.6		RPD passed
cis-1,2-Dichloroethene	ug/L	19500	21900	20,700	11.6		RPD passed
trans-1,2-Dichloroethene	ug/L	161	343	252	**72.2**	182.0	Det >5xRL, RPD failed
Tetrachloroethene	ug/L	3.47	3.56	3.515	2.6		RPD passed
Trichloroethene	ug/L	43200	43100	43,150	0.2		RPD passed
Vinyl chloride	ug/L	388	392	390	1.0		RPD passed
Anions							
Sulfate	mg/L	25.4	25	25.2	1.6		RPD passed
Chloride	mg/L	144	143	143.5	0.7		RPD passed
Metals							
Iron	mg/L	0.613	1.7	1.16	**94.0**	1.1	Det >5xRL, RPD failed
Manganese	mg/L	0.729	0.747	0.738	2.4		RPD passed
General Chemistry							
Total Organic Carbon	mg/L	2.42	2.52	2.47	4.0		RPD passed
Nitrate as N	mg/L	ND(<0.100)	ND(<0.100)	NC	NC		
Natural Attenuation Indicators							
Methane	ug/L	160	160	160	0.0		RPD passed
Ethane	ug/L	2.7	2.9	2.8	7.1		RPD passed
Ethene	ug/L	270	280	275	3.6		RPD passed

Analyte	Units	Concentration		Mean	RPD (%)	Difference in Concentration if RPD > 30%	Comment
		Sample ID	Duplicate ID				
		MW-57	Dup-02				
		4/24/2014	4/24/2014				
Volatile Organic Compounds (VOCs)							
1,1-Dichloroethene	ug/L	2.64	2.97	2.805	11.8		RPD passed
cis-1,2-Dichloroethene	ug/L	7.91	8.11	8.01	2.5		RPD passed
trans-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Tetrachloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Trichloroethene	ug/L	953	865	909	9.7		RPD passed
Vinyl chloride	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Anions							
Sulfate	mg/L	54.4	55.1	54.75	1.3		RPD passed
Chloride	mg/L	15.1	15.0	15.05	0.7		RPD passed
Metals							
Iron	mg/L	0.217	0.202	0.2095	7.2		RPD passed
Manganese	mg/L	0.701	0.648	0.6745	7.9		RPD passed
General Chemistry							
Total Organic Carbon	mg/L	1.9	2.1	2.0	11.5		RPD passed
Nitrate as N	mg/L	ND(<0.100)	ND(<0.100)	NC	NC		
Natural Attenuation Indicators							
Methane	ug/L	2.0	2.0	2	0.0		RPD passed
Ethane	ug/L	0.098	0.033	0.0655	**99.2**	0.065	Det <5xRL, RPD failed
Ethene	ug/L	0.11	0.12	0.115	8.7		RPD passed

Appendix K
Table 1
Groundwater Field Duplicate Relative Percent Difference Analysis

Analyte	Units	Concentration Sample ID MW-15 7/16/2014	Concentration Duplicate ID Dup-01 7/16/2014	Mean	RPD (%)	Difference in Concentration if RPD > 30%	Comment
Volatile Organic Compounds (VOCs)							
1,1-Dichloroethene	ug/L	ND(<2.00)	ND(<2.00)	NC	NC		
cis-1,2-Dichloroethene	ug/L	11.0	12.3	11.65	11.2		RPD passed
trans-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Tetrachloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Trichloroethene	ug/L	59.0	77.8	68.4	**27.5**		RPD passed
Vinyl chloride	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Anions							
Sulfate	mg/L	33.4	34.0	33.7	1.8		RPD passed
Chloride	mg/L	23.9	23.8	23.85	0.4		RPD passed
Metals							
Iron	mg/L	0.196	0.192	0.194	2.1		RPD passed
Manganese	mg/L	0.0221	0.016	0.01905	**32.0**	0.0061	Det <5xRL, RPD passed
General Chemistry							
Total Organic Carbon	mg/L	6.24	6.16	6.2	1.3		RPD passed
Nitrate as N	mg/L	4.42	4.2	4.31	5.1		RPD passed
Natural Attenuation Indicators							
Methane	ug/L	2.1	2	2.05	4.9		
Ethane	ug/L	<0.025	<0.025	NC	NC		
Ethene	ug/L	0.14	0.055	0.0975	**87.2**	0.0850	Det ~5xRL, RPD failed

Analyte	Units	Concentration Sample ID MW-25D 10/7/2014	Concentration Duplicate ID Dup 2 10/7/2014	Mean	RPD (%)	Difference in Concentration if RPD > 30%	Comment
Volatile Organic Compounds (VOCs)							
1,1-Dichloroethene	ug/L	ND(<2.00)	ND(<2.00)	NC	NC		
cis-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
trans-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Tetrachloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Trichloroethene	ug/L	9.10	9.11	9.105	0.1		RPD passed
Vinyl chloride	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Anions							
Sulfate	mg/L	29.2	29.9	29.55	2.4		RPD passed
Chloride	mg/L	5.49	5.79	5.64	5.3		RPD passed
Metals							
Iron	mg/L	ND(<0.100)	ND(<0.100)	NC	NC		
Manganese	mg/L	0.164	0.189	0.1765	14.2		RPD passed
General Chemistry							
Total Organic Carbon	mg/L	2.42	1.77	2.095	**31.0**	0.65	Det <5xRL, RPD passed
Nitrate as N	mg/L	0.15	0.21	0.180	**33.3**	0.06	Det <5xRL, RPD passed
Natural Attenuation Indicators							
Methane	ug/L	12	10	11	18.2		RPD passed
Ethane	ug/L	<0.025	<0.025	NC	NC		
Ethene	ug/L	0.16	0.16	0.16	0.0		RPD passed

Appendix K
Table 1
Groundwater Field Duplicate Relative Percent Difference Analysis

Analyte	Units	Concentration		Mean	RPD (%)	Difference in Concentration if RPD > 30%	Comment
		Sample ID	Duplicate ID				
		MW-65	Dup				
		10/9/2014	10/9/2014				
Volatile Organic Compounds (VOCs)							
1,1-Dichloroethene	ug/L	ND(<2.00)	ND(<2.00)	NC	NC		
cis-1,2-Dichloroethene	ug/L	17.1	14.5	15.8	16.5		RPD passed
trans-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Tetrachloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Trichloroethene	ug/L	826	799	812.5	3.3		RPD passed
Vinyl chloride	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Anions							
Sulfate	mg/L	1.98	1.88	1.93	5.2		RPD passed
Chloride	mg/L	3.02	2.23	2.625	**30.1**	0.8	Det < 5xRL, RPD passed
Metals							
Iron	mg/L	3.06	2.92	2.99	4.7		RPD passed
Manganese	mg/L	0.369	0.349	0.359	5.6		RPD passed
General Chemistry							
Total Organic Carbon	mg/L	3.92	3.96	3.94	1.0		RPD passed
Nitrate as N	mg/L	ND(<0.100)	ND(<0.100)	NC	NC		
Natural Attenuation Indicators							
Methane	ug/L	36	44	40	20.0		RPD passed
Ethane	ug/L	0.1	0.12	0.11	18.2		RPD passed
Ethene	ug/L	0.29	0.34	0.315	15.9		RPD passed
Analyte	Units	Concentration		Mean	RPD (%)	Difference in Concentration if RPD > 30%	Comment
		Sample ID	Duplicate ID				
		MW-65	Dup				
		12/18/2014	12/18/2014				
Volatile Organic Compounds (VOCs)							
1,1-Dichloroethene	ug/L	ND(<2.00)	ND(<2.00)	NC	NC		
cis-1,2-Dichloroethene	ug/L	22.9	20.8	21.85	9.6		RPD passed
trans-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Tetrachloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Trichloroethene	ug/L	1,730	1,530	1,630	12.3		RPD passed
Vinyl chloride	ug/L	1.41	1.32	1.365	6.6		RPD passed
Anions							
Sulfate	mg/L	1.98	2.01	1.995	1.5		RPD passed
Chloride	mg/L	2.26	2.38	2.32	5.2		RPD passed
Metals							
Calcium	mg/L	131	131	131	0.0		RPD passed
Iron	mg/L	4.91	4.91	4.91	0.0		RPD passed
Magnesium	mg/L	31.6	30.7	31.15	2.9		RPD passed
Manganese	mg/L	0.345	0.335	0.34	2.9		RPD passed
Potassium	mg/L	3.21	3.06	3.135	4.8		RPD passed
Sodium	mg/L	47.2	45.6	46.4	3.4		RPD passed
General Chemistry							
Total Alkalinity	mg/L	530	539	534.5	1.7		RPD passed
Bicarbonate Alkalinity as $CaCO_3$	mg/L	530	539	534.5	1.7		RPD passed
Total Organic Carbon	mg/L	4.46	4.41	4.435	1.1		RPD passed
Nitrate as N	mg/L	ND(<0.100)	ND(<0.100)	NC	NC		
Nitrite as N	mg/L	ND(<0.100)	ND(<0.100)	NC	NC		

Appendix K
Table 1
Groundwater Field Duplicate Relative Percent Difference Analysis

Analyte	Units	Concentration		Mean	RPD (%)	Difference in Concentration if RPD > 30%	Comment
		Sample ID	Duplicate ID				
		MW-65	Duplicate				
		3/24/2015	3/24/2015				
Volatile Organic Compounds (VOCs)							
1,1-Dichloroethene	ug/L	ND(<2.00)	ND(<2.00)	NC	NC		
cis-1,2-Dichloroethene	ug/L	29.7	28.1	28.9	5.5		RPD passed
trans-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Tetrachloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Trichloroethene	ug/L	2370	2360	2,365	0.4		RPD passed
Vinyl chloride	ug/L	1.89	1.9	1.895	0.5		RPD passed
Anions							
Sulfate	mg/L	1.65	1.69	1.67	2.4		RPD passed
Chloride	mg/L	2.32	2.26	2.29	2.6		RPD passed
Metals							
Calcium	mg/L	133	129	131	3.1		RPD passed
Iron	mg/L	4.53	4.15	4.34	8.8		RPD passed
Magnesium	mg/L	33.2	31.6	32.4	4.9		RPD passed
Manganese	mg/L	0.345	0.328	0.3365	5.1		RPD passed
Potassium	mg/L	2.2	2.1	2.15	5.6		RPD passed
Sodium	mg/L	48.9	46.5	47.7	5.0		RPD passed
General Chemistry							
Total Alkalinity	mg/L	585	579	582	1.0		RPD passed
Bicarbonate Alkalinity as $CaCO_3$	mg/L	585	579	582	1.0		RPD passed
Total Organic Carbon	mg/L	3.81	3.83	3.82	0.5		RPD passed
Nitrate as N	mg/L	ND(<0.100)	ND(<0.100)	NC	NC		
Nitrite as N	mg/L	ND(<0.100)	ND(<0.100)	NC	NC		
Analyte	Units	Concentration		Mean	RPD (%)	Difference in Concentration if RPD > 30%	Comment
		Sample ID	Duplicate ID				
		MW-67	Duplicate				
		11/9/2015	11/9/2015				
Volatile Organic Compounds (VOCs)							
1,1-Dichloroethene	ug/L	ND(<2.00)	ND(<2.00)	NC	NC		
cis-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Chloroform	ug/L	2.16	2.05	2.105	5.2		RPD passed
trans-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Tetrachloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Trichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Vinyl chloride	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Analyte	Units	Concentration		Mean	RPD (%)	Difference in Concentration if RPD > 30%	Comment
		Sample ID	Duplicate ID				
		MW-66	Duplicate				
		7/1/2016	7/1/2016				
Volatile Organic Compounds (VOCs)							
1,1-Dichloroethene	ug/L	ND(<2.00)	ND(<2.00)	NC	NC		
cis-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Chloroform	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
trans-1,2-Dichloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Tetrachloroethene	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		
Trichloroethene	ug/L	6.38	5.79	6.085	9.7		RPD passed
Vinyl chloride	ug/L	ND(<1.00)	ND(<1.00)	NC	NC		

Notes:
ug/l = microgram per liter
mg/l = milligrams per liter
RPD = relative percent difference
NC = not calculated

Prepared by: ATK
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Golder Associates

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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