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REMOVAL ACTION WORK PLAN
ADDENDUM 1

THE PEOPLES GAS LIGHT AND COKE COMPANY
FORMER CRAWFORD STATION MGP SITE
CHICAGO, ILLINOIS

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1 INTRODUCTION

1.1 Overview

This document serves as Addendum Number 1 to the *Removal Action Work Plan (RAWP), Revision 1,* dated September 6, 2011 *(RAWP Rev. 1)* and details the expanded source material removal scheduled for the Parcel L Removal Action Area (Parcel L RAA). Parcel L is an approximate 35-acre parcel located in the central portion of the former Crawford Station Manufactured Gas Plant (MGP) site in Chicago, Illinois (Figure 1). Peoples Gas Light and Coke Company (PGL), a subsidiary of Integrys Energy Group, owned the former MGP. Integrys Business Support, LLC (IBS) will continue to provide oversight of the expanded removal action on behalf of PGL.

MGP residuals meeting the classification of source material were identified in surface and subsurface soils within the proposed Parcel L RAA. A potential exposure risk is present because of the existence of MGP source material in surface soils at multiple locations; surface conditions at Parcel L consist of loosely packed gravel that can easily be disturbed. Further, subsurface soils contain high concentrations of contaminants consistent with the presence of MGP source material and may impact other receptors.

Time Critical Removal Action activities were was initiated at the Crawford Station MGP site in January 2012 on Parcels A, B & O pursuant to a Remedial Action Work Plan approved by the USEPA on September 8, 2011. Although a complete Remedial Investigation/Feasibility Study (RI/FS) has not been completed to-date, preliminary investigation steps identified MGP source material in surficial and subsurface soils on Parcel L of the Crawford Station MGP site. Accordingly, this Addendum has been prepared to address the need for source material removal on Parcel L as a continuation of the existing Time Critical Removal Action process.

This RAWP Addendum, prepared pursuant to the Administrative Settlement Agreement and Order on Consent for Removal Action, Docket No. V-W-11-C-981, dated October 12, 2011 (Settlement Agreement), outlines the scope of the proposed removal action to be undertaken on Parcel L as a Time Critical Removal Action. This removal action is focused on removing MGP residuals that have been characterized as source material that pose a potential exposure risk. This portion of the removal action encompasses only one portion of the Crawford Station MGP site and is intended as an interim action to address near surface and subsurface MGP source material. IBS intends to accomplish substantial work on the referenced parcel, such that the removal action will contribute to the overall Site remediation goals.

1.2 Project Background Information

See RAWP Rev. 1, Section 1.2, page 2 for project background information. Specific location information for Parcel L RAA is as follows.

Geographic Coordinates:	Lat. 41° 49' 47.00" N Long. 87° 43' 57.30" W
Street Address:	4201 West 35th Place, Chicago, IL

1.3 Site History

See RAWP Rev. 1, Section 1.3, page 3 for Site history.

1.4 Site Description

See RAWP Rev. 1, Section 1.4, page 3 for overall Site description.

Parcel L comprises approximately 35 acres of land located in the central portion of the Crawford Station MGP site. The location of the proposed Parcel L RAA is presented on Figure 2. Land use of the surrounding area is presented in Figure 3.

1.5 Previous Investigations

Refer to the *Completion Report, Revision 0*, dated December 23, 2011 (Completion Report Rev. 0) for a compilation of previous investigation activity and findings. Section 5 of the Completion Report Rev. 0 (page 84) provides a list of the prior environmental reports and documents pertaining to the Crawford Station MGP site.

Appendix A of this document contains copies of prior investigation data specific to Parcel L including soil boring logs, test pit logs, and laboratory analytical reports from earlier investigations conducted by Burns & McDonnell.

1.6 Prior Remedial Activities

Remedial activities have been conducted on various portions of the Crawford Station MGP site. This expanded removal action will focus on the source material located on Parcel L. Based on assessment of historical information, no documented remedial activities have been performed on Parcel L. Surface features of the former MGP operations have been removed. Based on assessment of historical

information and prior site investigation data, it is anticipated that the majority of the subsurface elements of the former MGP structures remain in place. Structures with subsurface elements that are expected to be encountered during removal activities include portions of the following:

- Sludge pit
- Base of the gas relief holder
- Tar storage tank
- Oil storage tank
- Settling sump
- Exhauster building foundation
- Boiler house foundation
- Intercepting sump
- Tar and oil pump house foundation

Removal of these subsurface structures is expected to be necessary, in most instances, to facilitate excavation of MGP source material as described in Section 4.4. It is anticipated that most or all of the former MGP structures within the proposed excavation area will be removed by standard excavation techniques. However, if it is determined that one or more structures is not practical to remove, steps will be taken to assess the potential impact leaving such structure would have on meeting the objectives stated in the RAWP Addendum 1 Rev. 1. Where practical, a visual inspection will be made to determine the nature of any MGP source material that would remain in place should the structure not be removed. If the structure in question exhibits characteristics that indicate it is MGP source material, or potentially contains or physically impedes access to additional MGP source material, measures will be taken to limit the extent of potential future migration of impacts. These measures may include application of in-situ remediation products and/or the placement of physical barriers. In the event that structures are encountered that extend beyond the removal action area (i.e., straddle the project limits of Parcel L), their location will be documented. The remnant structures within Parcel L will be removed to the extent practicable. Those portions of structures that extend beyond the project limits may be left in place and will be addressed to limit the extent of future migration of MGP impacts as discussed above.

2 SUMMARY OF SITE CONDITIONS

2.1 Site Geology and Hydrogeology

The general geological setting of Parcel L is described in the RAWP Rev. 1, Section 2.1, page 9 as well as the Completion Report Rev. 0, Section 2.4, page 38 and Section 2.5, page 39. Details specific to Parcel L are as follows:

- Fill Unit - Asphalt gravel is present at the surface and is approximately 6 to 12 inches thick. The surficial fill unit ranges from 0 to 14 feet in thickness.
- Brown/Gray Silty Clay Unit - Underlying the fill unit is a brown/gray silty clay unit and is described in detail in the RAWP Rev. 1.
- Gray Silty Clay Unit - Underlying the brown/gray silty clay unit is a native gray silty clay unit. The top of the gray silty clay unit was encountered from 4 to 15 feet below ground surface (bgs).

A key site feature of Parcel L is the former West Fork of the South Branch of the Chicago River (West Fork) that historically traversed Parcel L diagonally from the southwest to the northeast. The former location of the West Fork is shown on Figure 5. According to test pit and soil boring data, portions of the former West Fork contain fill to depths of 19-20 feet. Based on available data, concentrations of MGP residuals do not appear as a continuous trend along and/or adjacent to the former channel. Additional characterization of the entire on-site reach of the former channel and its potential to represent a possible source of impacted fill material and/or a preferential migration pathway will be evaluated in conjunction with the Site-wide groundwater assessment as part of the RI/FS process.

2.2 Pre-Removal Site Characterization Activities and Findings

Pre-removal site characterization activities, which included advancement of soil borings, monitoring well installation, and test pit excavations, were conducted within the Parcel L RAA by NRT in June 2012.

NRT advanced 29 soil borings on Parcel L from June 6 through June 11, 2012. Boring locations are identified as LSB501 through LSB529 as shown on Figure 5. Soil boring logs are presented in Appendix B1. Six of the borings were converted to monitoring wells to assess the groundwater elevation and gradient to help in construction planning. Monitoring well construction details are included on the soil boring logs in Appendix B1.

A survey of the six newly constructed monitoring wells indicated that groundwater in the monitoring wells on Parcel L is at depths between 10.11 feet and 13.65 feet bgs. Groundwater elevations indicate that groundwater flows to the south. When present, groundwater in the fill appears to be perched. Consequently, depths to groundwater in the fill will depend on the fill thickness and/or depths to the clay till. Figure 6 illustrates the estimated groundwater elevation contours.

The Chicago Sanitary and Ship Canal, which lies approximately 1,725 feet south of the Parcel L RAA, is the closest surface water body and is located adjacent to Parcel S of the Site. According to the Illinois Environmental Protection Agency (IEPA), water quality within the Canal is generally poor. Survey stations located upstream and downstream of the Site indicate that the greatest impact to water quality is from fecal coliform concentrations due primarily to waste water treatment discharges.

In the vicinity of the Parcel L RAA, the ground surface is relatively flat. Water runoff is expected to flow toward low areas on Parcel L and infiltrate into the fill. The surface topography is shown on the Site Survey prepared by W-T Land Surveying and included in Appendix B3.

As part of NRT's 2012 investigation activities, soil samples were collected from discrete intervals for laboratory analysis of petroleum volatile organic compounds (PVOC) and gasoline and diesel range organics (TPH). A composite soil sample from the soil borings was collected and analyzed for landfill waste characterization parameters. Laboratory analytical reports from TestAmerica for these soil samples are presented in Appendix B2.

Test pit excavations, identified as TP-1 through TP-5, were conducted on June 5-7, 2012; their locations are illustrated on Figure 5.Test pits were completed to between eight and 23 feet bgs and were approximately six feet in width. Test pit TP-2 was allowed to remain open for approximately eight hours to observe the in-flow of groundwater in the excavation. Water was observed to level at approximately 11 feet bgs. Test pit logs are presented in Appendix B1.

2.3 Utilities and Site Constraints

2.3.1 Existing Utilities

Current site features at Parcel L were surveyed by W-T Land Surveying in May 2012. The survey is included in Appendix B3 and was reviewed to identify indications of underground utilities.

2.3.2 Site Ownership

PGL owns Parcel L.

2.4 Soil Data Compilation and Interpolation

Consistent with the general methodology described in the RAWP Rev. 1, Section 2.4, page 12, available data for Parcel L was evaluated as part of the removal action planning for purposes of:

1. Estimation of the extent of the excavation area. The excavation limits were estimated based on a combination of analytical soil data and descriptions of visually identified MGP source material in soil boring and test pit logs. Soil analytical data was used to correlate visual indicators of NAPL. The proposed removal action areas were verified and refined to include areas where TPH concentrations exceeded the default value of 2,000 mg/kg in accordance with the Tiered Approach to Corrective Action Objectives (TACO) regulations for determination of soil attenuation capacity (Illinois TACO: 35 IAC 742, Section 742.215). TPH as a sum of diesel and gasoline range organics was assumed to be representative of the primary constituents of potential concern (COPC) including benzene, toluene, ethylbenzene, xylenes (BTEX), and total PAHs. The visual descriptions of NAPL as well as associated analytical data were coordinated into a three-dimensional interpolation of the source material at each historic and recent soil probe and test pit location.

2. Targeting the soil amendment area within the established Parcel L RAA. The excavation was then subdivided into areas where soil will likely require amendment based on available data in order to satisfy disposal requirements for the selected Illinois Subtitle D landfill. Areas with similar descriptions of NAPL were included and were used to interpolate the three-dimensional volume of material that is expected to require amendment prior to off-site disposal.

The output includes the total volume of material to be removed from the Parcel L RAA. Excavation areas are presented in Figure 7 and discussed further in Section 3.3.

2.5 Characterization of Material for Disposal

Material was characterized using the same procedures detailed in the RAWP Rev. 1, Section 2.5, page 13 using information and data specific to the Parcel L RAA. The waste streams expected to be generated by the Parcel L removal action are consistent with those identified for the on-going removal activity at Parcels A, B, and O.

2.6 Risk to Public Health, Welfare or the Environment

Based on the historic site investigation data, and recent supplemental site characterization sampling, the conditions present at the Parcel L RAA may constitute an risk to public health, welfare, and the environment based upon the factors set forth in the National Contingency Plan (NCP) Section 300.415(b)(2). The potential risk posed could increase if PGL implements plans to increase the level of activity and frequency of use of Parcel L in the future. Selected factors that were deemed applicable to this determination are as follows:

1. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

   This portion of the Site is within an area used for industrial activities, but no active operations are conducted in the vicinity of any surface MGP residual materials. Typical security measures, including fencing, are employed, limiting any actual exposure.

   A potential exposure risk is present within the proposed Parcel L RAA because of the existence of MGP source material at the surface at multiple locations. Surface conditions consist predominantly of loosely packed gravel and asphalt grindings that do not provide a competent barrier to prevent exposure to the MGP source material. Further, MGP affected soils at depth have the potential to migrate and threaten additional receptors, such as groundwater and/or surface water. Notwithstanding, the mobility of the MGP residuals in subsurface soils is considered low.

2. Elevated levels of hazardous substances or, pollutants or contaminants in soils at or near the surface that may migrate.

   As stated above, MGP residuals meeting the classification of source material were identified in surface soils. In order to quantify the surface impacts at Parcel L, two additional surface soil samples were collected. Surface samples PCLSS121015001 (0 to 0.5 feet bgs) and PCLSS121015002 (0 to 0.5 feet bgs) were collected at the locations shown on the attached Figure 1 and analyzed for Total Petroleum Hydrocarbons. Surface samples PCLSS121015001 and PCLSS 121015002 exceeded the default values for soil attenuation capacity (6,000 mg/kg in surface soils and 2,000 mg/kg for subsurface soils) with concentrations of 24,080 mg/kg and 19,000 mg/kg, respectively.

   A quantitative risk assessment of the detected concentrations of the constituents of concern was not conducted as part of prior investigations or during the preparation of this Addendum.

Given the conditions at Parcel L, the nature of the known and suspected hazardous substances, pollutants, or contaminants within the Parcel L RAA, and the potential exposure pathways described above, actual or threatened releases of hazardous substances, pollutants or contaminants from the Parcel L RAA are evident. Removal of these MGP source materials will effectively mitigate the direct contact exposure pathway and reduce the potential for migration to soil, groundwater, or surface water. If

not addressed by implementing the response actions selected in this Addendum, or by another comparable mitigation method, these conditions pose a potential risk to public health, welfare, and/or the environment.

3 BASIS FOR REMOVAL ACTION

3.1 Removal Action Objectives and Strategy

The expanded Removal Action is being conducted to accomplish the overall objectives described in the RAWP Rev. 1, Section 3.1, page 15.

3.2 MGP Source Material Definition

See the RAWP Rev. 1, Section 3.2, page 16 for information regarding the definition of MGP source material.

3.3 Removal Action Decision Criteria

Removal action decision criteria will be consistent with those presented in the RAWP Rev. 1, Section 3.3, page 17. For Parcel L, excavation depths are planned in selected locations to approximately 29 feet bgs as shown on Figure 7.

3.4 Estimated Removal Volume

Based on the project objectives and decision criteria, the approximate lateral and vertical extents of MGP source material to be removed for this portion of the site are shown on Figure 7. Details of the removal plan are presented in Section 4. The total volume of MGP source material planned for off-site disposal is estimated to be between approximately 280,000 and 310,000 cubic yards (450,000 and 500,000 tons).

4 REMOVAL ACTION IMPLEMENTATION

This section describes the components of the removal action plan that will be implemented within the designated Parcel L RAA of the Crawford Station MGP site.

4.1 Preliminary Activities

4.1.1 Site Security and Controls

PGL currently maintains a gated and secured entrance to its facility at 4201 West 35th Place, Chicago, Illinois. This secured entrance will serve as an access point to the Parcel L RAA.

All visitors will be required to sign a visitor's log when entering and exiting the Parcel L RAA. Access to active construction areas will be limited to authorized personnel approved by IBS who will be required to participate in a site-specific health and safety briefing by the site supervisor or health and safety officer prior to entry.

4.1.2 Surveying

See the RAWP Rev. 1, Section 4.1.2, page 19 for information regarding surveying.

4.2 Site Preparation

Site preparation will include protection of utilities to remain in-place, installation of erosion controls, and establishing a truck route at Parcel L, including construction of an on-site temporary truck access road. Concrete barricades or steel traffic bearing plates will be placed around or on the wells. These activities are discussed further below and illustrated on Figure 8.

4.2.1 Protection of Utilities and Construction Utilities

Several underground utilities are located within the Parcel L RAA. Coordination with all utility providers is required to protect the utilities which will remain in-place during excavation activities. Discussions with PGL, Chicago Department of Water Management, and the Metropolitan Water Reclamation District of Greater Chicago on a proposed plan for protection of the utilities will be completed in advance of the initiation of the project.

Field modification may be necessary based on subsurface conditions encountered during construction. If utility modifications are necessary, PGL will coordinate with the utility provider. Additionally, coordination with utility providers will also occur to facilitate installation of utility services necessary for the construction operations. The construction operations will require, at a minimum, electrical and communication services for office trailers. In addition, the contractor's site superintendent will be tasked with ensuring all utility conflicts are cleared as the excavation activity progresses. In the event that ISCO or EISB is used, special care will be taken to avoid application in proximity to sensitive utilities.

4.2.2 Runoff and Erosion Control

See RAWP Rev. 1, Section 4.2.2, page 20 for information regarding general erosion and site controls. Silt fence will be placed along the property boundary.

4.2.3 Clearing and Grubbing

See RAWP Rev. 1, Section 4.2.3, page 22 for information regarding clearing and grubbing. Very limited clearing and grubbing activity is anticipated for Parcel L.

4.2.4 Route of Ingress and Egress for Construction

Ingress and egress routes to the Parcel L RAA will be established through gates located at the northern and southern property boundaries. At the gates, appropriate signage will be posted to identify entrances and exits. All trucks will be covered and covers will be securely fastened before leaving the Parcel L RAA.

4.3 Fugitive Emission Control

See RAWP Rev. 1, Section 4.3, page 22 for information regarding fugitive emission control. In addition to the controls measures listed in the RAWP Rev. 1, an odor mitigation system may be utilized to control fugitive emissions, if needed.

4.4 Removal Action Operations

Removal action operations will consist of the following elements as described in this section:

- Shoring
- Targeted Excavation
- On-site Materials Management

- Excavation Dewatering
- Equipment Decontamination

4.4.1 Shoring

For purposes of excavation stability, a sheet pile wall will be installed along the northern, western, and southern boundaries of Parcel L where the excavation area extends to these boundaries, as shown on Figure 8. An approximate 1,500 foot long sheet pile wall will be constructed immediately inside the fence line to allow removal of MGP source material At project completion, the sheet piles will be left in place as a vertical barrier to demark the removal area along the property boundary.

In addition, sloping of banks along the perimeter of the Parcel L RAA will be required to stabilize excavation side walls as necessary to complete the excavation. Slope cutbacks will be in accordance with applicable industry standards and OSHA requirements.

4.4.2 Targeted Excavation

Excavation will continue to Parcel L RAA to achieve removal of MGP source material as defined in the RAWP Rev 1. The anticipated excavation area for this portion of the site is shown on Figure 7.

Overall this portion of the excavation process will occur in a staged progression, designed to effectively achieve removal goals but minimize duration of open excavations and allow for adequate access to the target removal areas. Phasing and sequencing of work will be further developed during the final design phase of the removal action. During excavation activities materials will be visually inspected for MGP residuals and segregated into four categories:

- Non-MGP impacted construction debris (i.e., pavement, concrete, etc.)
- MGP source material
- MGP source material at or above the Subtitle D landfill permit limits
- Overburden material

4.4.2.1 Non-MGP Impacted Construction Debris

According to historic data, more structures and construction debris will be encountered during removal activities at Parcel L than were encountered at Parcels A, B, and O. Structures and construction debris with limited to no MGP impacts may be crushed and used to backfill the excavation area. Structures and construction debris that is not reused at Parcel L will be transported off-site for disposal.

4.4.2.2 MGP Source Material

MGP source material will be directly loaded from the excavation to trucks for transport off-site or will be temporarily stockpiled within excavation areas to facilitate efficient loading of trucks. MGP source material will be transported by covered truck to an approved disposal facility as identified in Section 5.3.

4.4.2.3 MGP Source Material at or above the Subtitle D Landfill Permit Limits

Of the total volume of MGP source material, a portion representing an estimated 25,000 to 30,000 cubic yards is expected to require on-site soil amendment. Based on experience gained during removal activities on Parcels A, B, and O, bed ash is anticipated to be the preferred amendment material.

Following amendment, a representative sample will be collected for laboratory analysis to confirm amended soils satisfy landfill acceptance criteria for the Subtitle D facility. All laboratory analytical reports will be provided to the landfill, as necessary, for approval prior to transporting materials off-site.

4.4.2.4 Overburden Material

See RAWP Rev. 1, Section 4.4.2.4, page 25 for information regarding the handling of overburden material.

4.4.3 On-site Materials Management

See RAWP Rev. 1, Section 4.4.3, page 26 for information regarding on-site management of materials.

4.4.4 Excavation Dewatering

See RAWP Rev. 1, Section 4.4.4, page 27 for information regarding dewatering the excavation area.

4.4.5 Equipment Decontamination

See RAWP Rev. 1, Section 4.4.5, page 28 for information regarding decontamination of equipment.

4.5 Site Restoration

See RAWP Rev. 1, Section 4.5, page 28 for information regarding restoration of Parcel L after removal activities.

5 STATE AND LOCAL REQUIREMENTS

5.1 Storm Water Discharge

Refer to the RAWP Rev. 1, Section 5.1, page 30 for details of the storm water discharge procedures.

5.2 Governmental Coordination

See RAWP Rev. 1, Section 5.2, page 30 for information regarding coordination with governmental agencies.

5.3 Off-Site Disposal

MGP-impacted debris and soil is planned to be profiled and disposed at Waste Management's Laraway Refuse Disposal Facility (RDF), located in Elwood, Illinois, a Subtitle D landfill. This facility has received similar MGP waste from the initial ongoing Removal Action activities at Parcels A, B, and O. The Laraway facility has been approved by USEPA with respect to the Off-Site Rule.

As an alternate disposal option, MGP-impacted debris may be disposed of at Waste Management's Countryside Landfill, located in Grayslake, Illinois, an operating Subtitle D facility, or their CID RDF, located in Calumet City, Illinois, a closed Subtitle C landfill currently approved to accept non-hazardous MGP wastes for bioremediation. The Countryside and CID RDF facilities have been confirmed to be in compliance with the Off-Site Rule for disposal of waste as set forth in the NCP Section 300.440.

6 CONSTRUCTION QUALITY ASSURANCE MEASURES

This section describes the following principal construction quality assurance measures that will be employed during the removal action.

- Air Monitoring
- Fugitive Emissions Management Plan
- Health and safety
- Sampling and analysis

6.1 Air Monitoring Plan

Removal action activities have the potential to generate emissions, including odor, fugitive respirable particulate matter less than 10 µm in diameter (PM_{10}), and vapor phase COPCs. Potential emission sources include the following:

- Soil Excavation: Potential emissions consist of VOC vapors and fugitive dust during soil excavation and loading into trucks.
- Excavated Material Management: Potential emissions consist of fugitive dust and/or vapor/odor emissions from stockpiles and during material handling.

Pre-construction air monitoring will be performed to document background levels of particulates and vapor phase COPCs at Parcel L. Air monitoring will be conducted at the perimeter of Parcel L during removal action activities to ensure engineering measures are being protective of public health and the environment, and to determine when response actions are warranted. Specific air monitoring elements will include, but not be limited to:

- Establishing a dedicated continuously operated weather station at Parcel L to monitor meteorological conditions.
- Collecting pre-construction background air samples to establish baseline ambient air concentrations.
- Continuously monitoring total volatile organic hydrocarbons (TVOC) and PM_{10} with fixed air monitoring (FAM) stations at the parcel perimeter for comparison with pre-defined limit (i.e., Action Level).

- Monitoring benzene concentration at FAM stations when TVOC levels exceed a pre-defined limit (i.e. Action Level).
- Collecting 24-hour time-weighted SUMMA canister samples along the parcel perimeter during active construction. SUMMA canisters will be used to collect 24-hour time-weighted average samples for VOC and naphthalene analysis. Results will be averaged and compared to the site-specific risk-based acceptable air concentrations (AACs) presented in Appendix C.
- Collecting 24-hour time-weighted polyurethane foam (PUF) samples along the parcel perimeter during active construction. PUF samples will be used to collect 24-hour time-weighted average samples for PAH analysis. Results will be averaged and compared to the site-specific risk-based AACs presented in Appendix C.

6.1.1 Real-Time Perimeter Air Monitoring

Real-time air monitoring for TVOCs and PM_{10} will be conducted continuously along the parcel perimeter at FAM stations. The intent of the real-time monitoring program is to provide early detection of short-term emissions and potential off-site migration of TVOCs and PM_{10} related to the removal actions. Real-time FAM stations will operate 24 hours per day, seven days per week, during periods of removal action activity. The real-time perimeter air monitoring system will consist of FAM stations that will be supported by a central computer and alarm notification system.

The FAM stations will be programmed to measure 15-minute average TVOC and PM_{10} concentrations. Each station will include equipment programed to measure benzene concentration if the 15-minute TVOC average exceeds the Action Levels described in Section 6.1.4. The FAM stations will transmit data in real-time to a central computer via wireless radio telemetry. The central computer will be programed to compare the TVOC and PM_{10} 15-minute averages to the Action Level. If an Action Level is exceeded, an alarm will display on the central computer and a text message will be automatically sent to a predetermined individual(s).

6.1.2 Time Weighted Average (24-Hour) Perimeter Air Monitoring

The proposed air sampling strategy is divided into three categories: background monitoring, full-scale startup, and full-scale operations. Each category has distinct sampling frequencies and quantity requirements. Frequencies and quantities may be revised during construction depending on conditions. Sampling requirements include the following:

- Background: prior to startup of full-scale operations, background air sampling and monitoring will be conducted to establish baseline concentrations for comparison with AACs. In addition to continuous real-time monitoring with the FAMs, 24-hour SUMMA and PUF sampling will be performed at upwind and downwind locations along the parcel perimeter. The SUMMA

samples will be analyzed for BTEX and naphthalene via USEPA Method TO-15. The PUF samples will be analyzed for seven non-volatile PAHs with site-specific AACs via USEPA Method TO-13A.

- Full Scale Startup: during approximately the first two months of full-scale operation, 24-hour SUMMA samples will be collected at upwind and downwind locations along the parcel perimeter three times per week. 24-hour PUF samples will be collected at upwind and downwind locations along the parcel perimeter a minimum of once per week. Priority (3-day) laboratory turnaround will be requested for rapid assessment of the analytical results. The duration of the Full-Scale Startup period may be decreased or extended based on site-specific conditions that could include weather and work activities being performed.

- Full-Scale: during the remaining duration of full-scale operations, 24-hour SUMMA samples will be collected twice per week at upwind and downwind locations along the parcel perimeter. PAH data will be collected with 24-hour PUF samples at upwind and downwind locations along the parcel perimeter once per week or may be monitored indirectly by measuring the PM_{10} concentration (i.e., using real-time monitor), rather than using PUF samplers as described in Appendix C.

- With the exception of full-scale startup, samples will be analyzed within the 14-day holding time unless real-time monitoring results indicate that the sample analysis should be expedited to evaluate potential on-site exceedances of AACs.

- Upwind and downwind samples will be located along the parcel perimeter based on removal action activities, accessibility, receptors, and weather conditions.

- Field duplicates for the SUMMA canisters and PUF samples will be collected at a frequency of one per 20 samples. Duplicates will be obtained by collecting two concurrent samples from a single location and having both analyzed by the laboratory.

6.1.3 Assessment of Meteorological Conditions

An on-site meteorological station will be used to measure wind speed, wind direction, relative humidity, ambient air temperature, and barometric pressure. Data will be relayed to a dedicated computer that will receive continuous meteorological data and compute a 5-minute running average of the wind speed and direction. The 5-minute running average wind direction will be used to identify upwind and downwind sample locations and to monitor off-site receptors. The information will be stored electronically and included in daily reports. Average daily temperatures and barometric pressures will be used to calculate 24-hour time-weighted average air sample volumes for the SUMMA canisters and PUF samples. Meteorological data may also be obtained from the National Data Buoy Center (Chicago Station CHII2) or the National Weather Station at Midway Airport (KMDW) in the event of a malfunction of the on-site station.

6.1.4 Action Levels

Action Levels will be used as a screening tool to manage construction activities to minimize the potential for off-site emissions. Action levels are generally constrained by detection limits of the field monitoring equipment. In addition, action levels are selected at appropriate levels to avoid triggering a concern from ambient air concentrations (e.g., exhaust from nearby parked cars) versus concerns that could be resulting from removal action operations. Exceedance of an Action Level at the parcel perimeter will require a response action for vapor phase, particulate, and/or odor mitigation based on the conditions presented in Section 6.2.1. The effectiveness of the Action Levels to maintain off-site vapor phase emissions below the AACs will be assessed during the full-scale startup and may be adjusted, as appropriate. Proposed Action Levels for periodic real-time perimeter monitoring are summarized in the table below:

Action Levels

Parameter	Action Level
TVOCs	0.5 ppm greater than background (15-minute average concentration)
Benzene	0.5 ppm
PM_{10}	0.15 mg/m^3 greater than background (15-minute average concentration)

These action levels are based on the following:

- The proposed action levels for TVOCs and benzene have been used at other MGP sites to effectively predict compliance with AACs and what can be reliably measured by the proposed equipment.
- The proposed action level for benzene is based on the on the California EPA Reference Exposure Level for acute 6-hour exposure of 0.4 ppm.
- The proposed action level for PM10 is based on previously demonstrated performance at other MGP sites.

6.2 Fugitive Emissions Management Plan

See RAWP Rev. 1, Section 6.2, page 35 for information regarding the management of fugitive emissions.

6.3 Health and Safety Plan

See RAWP Rev. 1, Section 6.3, page 37 for information regarding the Site-Specific Health and Safety Plan (SSHASP) for ongoing removal activities at the Crawford Station MGP site. The SSHASP will be updated as appropriate to reflect the location of Parcel L and other site-specific characteristics. A copy of the updated SSHASP will be provided to USEPA upon request.

6.4 Sampling and Analysis Plan

See RAWP Rev. 1, Section 6.4, page 38 for information regarding the sampling and analysis plan for the Parcel L removal action. The plan is summarized in Table 1.

7 SCHEDULE

7.1 Schedule for Construction

Construction activities are tentatively scheduled to begin in November 2012, immediately following completion of remediation activities on Parcels A, B, and O and subject to USEPA's review and approval of this Addendum and governmental approvals. Property access and contractor availability are not expected to be constraints with respect to the project schedule; however, weather conditions may influence the production rate of the excavation work. IBS will keep USEPA updated on the work progress and schedule modifications through weekly progress reports.

The table below summarizes the anticipated construction schedule based on the planned scope of work described herein.

Preliminary Construction Schedule

Activity	Duration (Weeks)
Target Project Start Date	November 2012
Mobilization / Site Preparation	3
Excavation/Transport/Disposal	56
Backfill Operations	12
Site Restoration / Close Out	3
Contingency	10
Total Estimated Project Duration	84
Target Completion	Spring 2014

7.2 Removal Action Completion Report

A Removal Action Completion Report for the work outlined in this Addendum will be submitted to USEPA within 90 days following restoration of the Site to document the work performed.

8 REFERENCES

Hansen Engineers, Inc., 1992, *Preliminary Site Investigation - Crawford Station Gas Production and Storage Facility,* Chicago, Illinois.

Burns & McDonnell, 2003, *Site Investigation Sampling Data, Parcel L.* Chicago, Illinois.

Kolata, Dennis R. and Nimz, Cheryl K, 2010, *Geology of Illinois.* Illinois State Geological Survey, Champaign, Illinois.

Lineback, J.A., 1979, *Quaternary Deposits of Illinois.* Illinois State Geological Survey, Champaign, Illinois. Scale 1:500,000.

Natural Resource Technology, Inc. September 6, 2011, *Removal Action Work Plan, Rev. 1 - Properties A, B & O, Chicago, Illinois.*

Natural Resource Technology, Inc., December 23, 2011, *Completion Report, Rev. 0, Crawford Station MGP Site, Chicago, Illinois.*

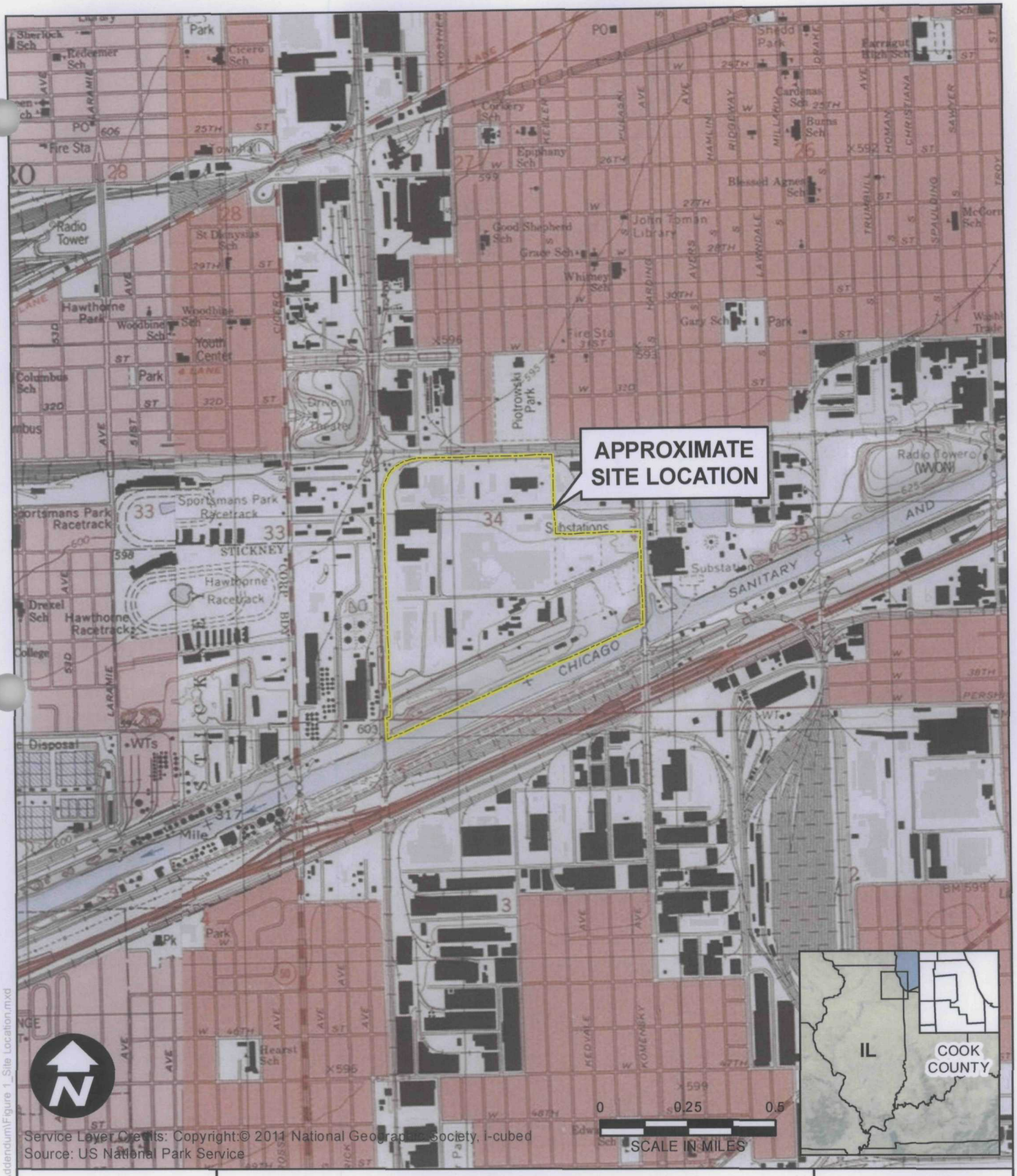
Natural Resource Technology, Inc., March 14, 2012, *Site Specific Work Plan, Rev. 0, Crawford Station MGP Site, Chicago, Illinois.*

Prepared for Integrys, August 2, 2007, *Multi-Site Health and Safety Plan Revision 2.*

Prepared for Integrys Business Support, LLC, September 4, 2007, *Multi-Site Quality Assurance Project Plan Revision 2.*

Prepared for Integrys Business Support, LLC, September 8, 2008, *Multi-Site Field Sampling Plan Revision 4.*

FIGURES



DRAWN BY/DATE:
TDC 7/17/12
REVIEWED BY/DATE:
JRR 7/18/12
APPROVED BY/DATE:
JMN 7/20/12

SITE LOCATION

CRAWFORD STATION MGP SITE
3500 SOUTH PULASKI ROAD
CHICAGO, ILLINOIS

PROJECT NO: 2037

FIGURE NO: 1

NATURAL RESOURCE TECHNOLOGY

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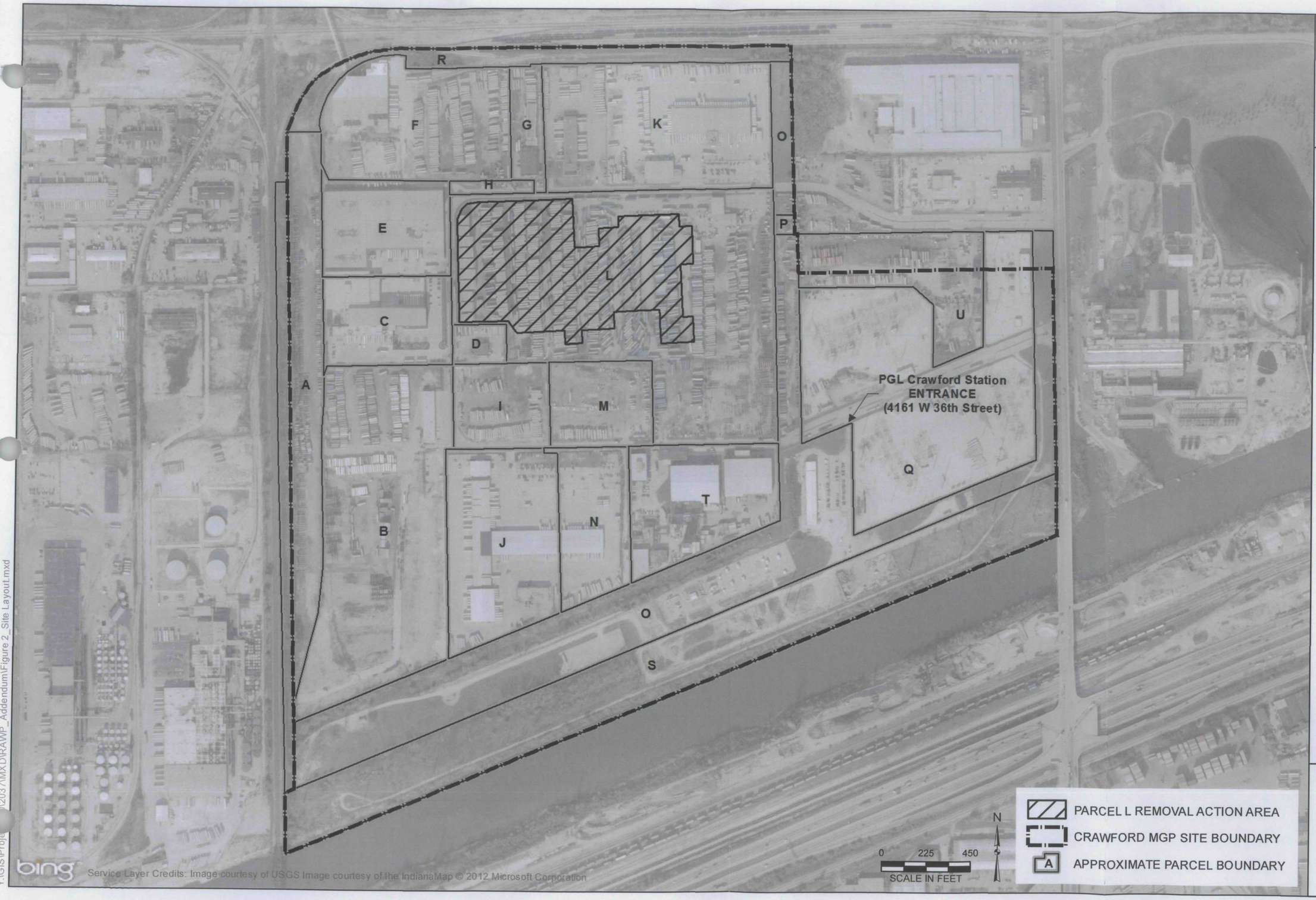

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REVIEWED BY/DATE:
JRR 7/18/12
APPROVED BY/DATE:
JMN 8/6/12

SITE FEATURES

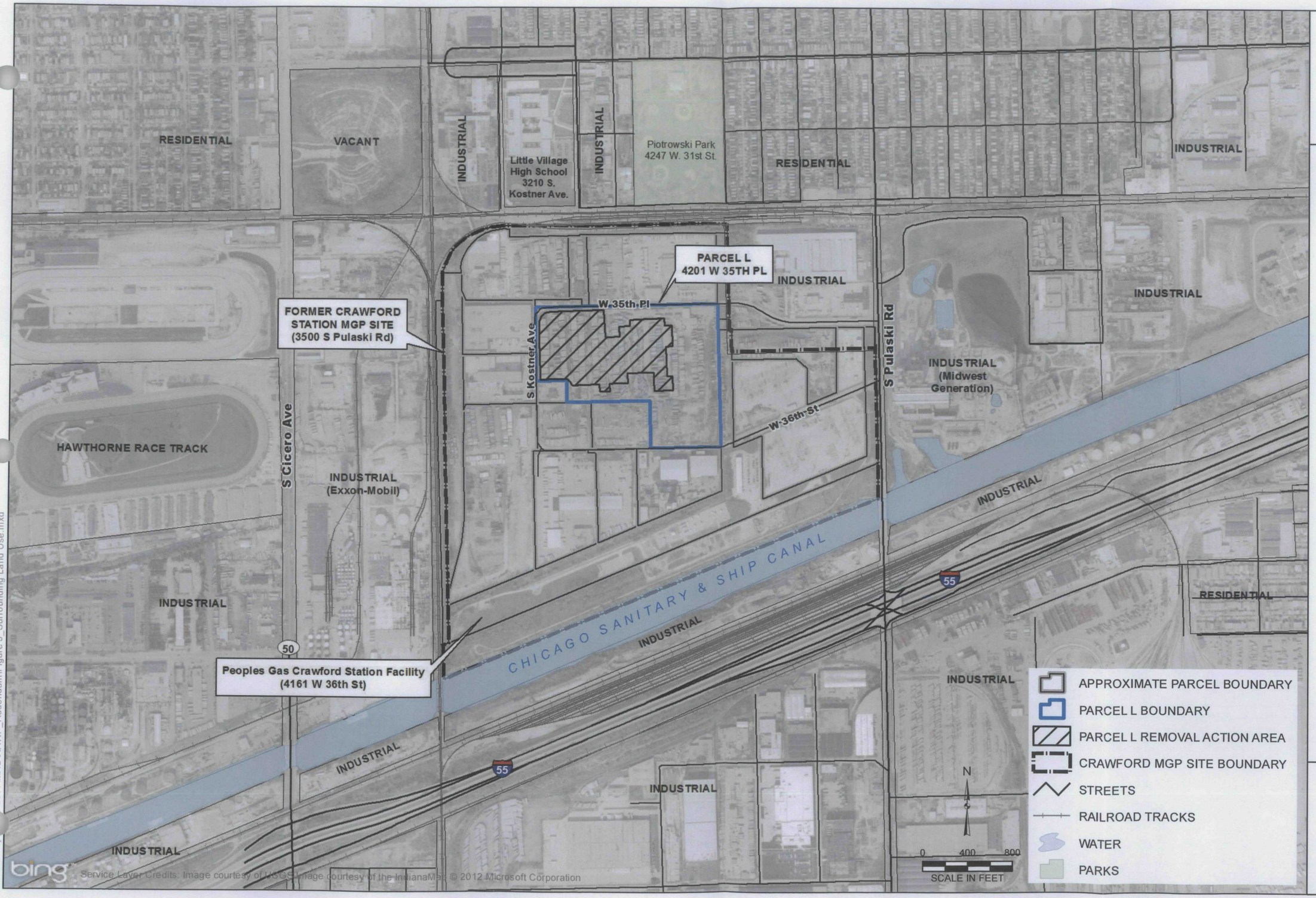
REMOVAL ACTION WORK PLAN ADDENDUM 1 - PARCEL L
CRAWFORD STATION MGP SITE
CHICAGO, ILLINOIS

PROJECT NO: 2037

FIGURE NO: 2

NATURAL RESOURCE TECHNOLOGY

Y:\GIS\Proje...\2037\MXD\RAWP_Addendum\Figure 2_Site Layout.mxd



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REVIEWED BY/DATE: JRR 7/18/12
APPROVED BY/DATE: JMN 8/6/12

SURROUNDING LAND USE

REMOVAL ACTION WORK PLAN ADDENDUM 1 - PARCEL L
CRAWFORD STATION MGP SITE
CHICAGO, ILLINOIS

PROJECT NO: 2037

FIGURE NO: 3

NATURAL RESOURCE TECHNOLOGY

Y:\GIS\Proje...\2037\MXD\RAWP_Addendum\Figure 3_Surrounding Land Use.mxd

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REVIEWED BY/DATE:
JRR 7/18/12
APPROVED BY/DATE:
JMN 8/6/12

HISTORICAL SOIL BORING LOCATIONS

REMOVAL ACTION WORK PLAN ADDENDUM 1
CRAWFORD STATION MGP SITE
CHICAGO, ILLINOIS

PROJECT NO. 2037

FIGURE NO. 4

NATURAL RESOURCE TECHNOLOGY

Y:\GIS\Proje...\2037\MXD\RAWP_Addendum\Figure 4_Historical Soil Boring Locations.mxd

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APPROVED BY/DATE:
JMN 8/6/12

SOIL BORING AND TEST PITS LOCATIONS

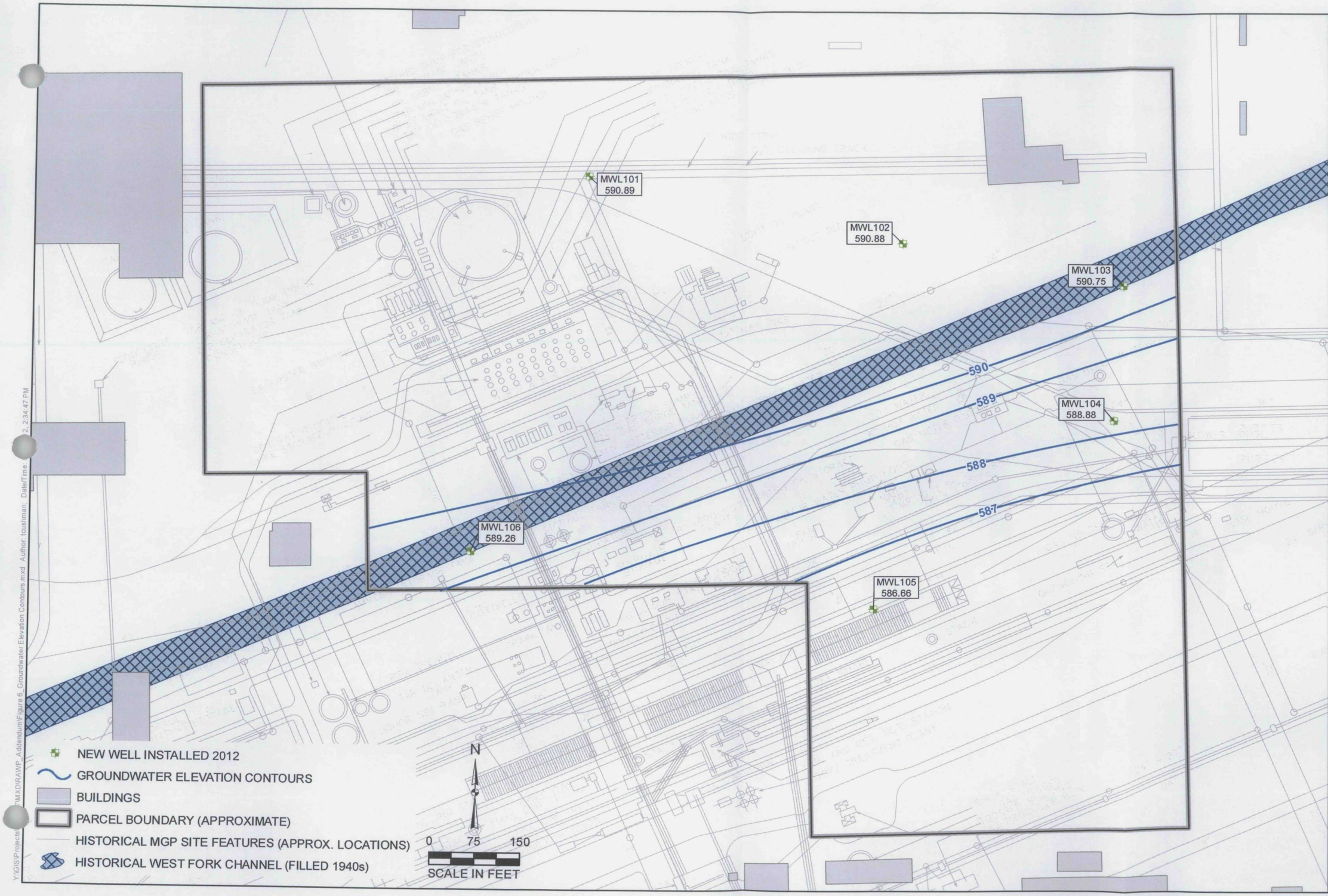
REMOVAL ACTION WORK PLAN ADDENDUM 1 - PARCEL L
CRAWFORD STATION SITE
CHICAGO, ILLINOIS

PROJECT NO. 2037

FIGURE NO. 5

NATURAL RESOURCE TECHNOLOGY

Y:\GIS\Projects\7M\DRAW\P_Addendum\Figure 5_Soil Boring and Test Pit Locations.mxd Author: tcushman Date/Time: 7/12, 2:33:13 PM



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REVIEWED BY/DATE:
JRR 7/3/12
APPROVED BY/DATE:
JMN 8/6/12

GROUNDWATER ELEVATION CONTOURS

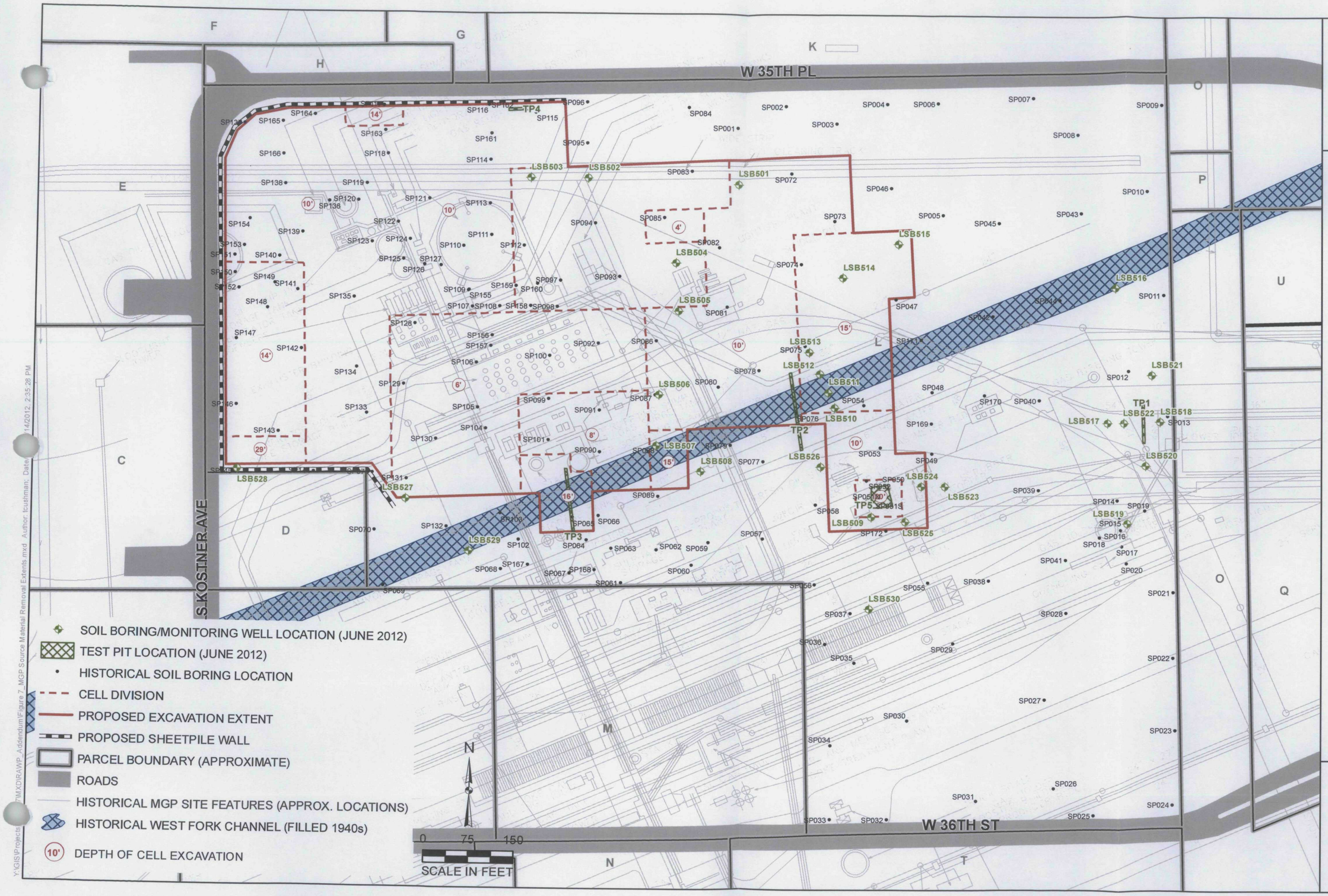
REMOVAL ACTION WORK PLAN ADDENDUM 1 - PARCEL L
CRAWFORD STATION SITE
CHICAGO, ILLINOIS

PROJECT NO. 2037

FIGURE NO. 6

NATURAL RESOURCE TECHNOLOGY

Y:\GIS\Projects*.MXD\RAWP_Addendum\Figure 6_Groundwater Elevation Contours.mxd Author: tcushman Date/Time: 2, 2:34:47 PM



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REVIEWED BY/DATE:
JRR 7/19/12
APPROVED BY/DATE:
JMN 8/6/12

MGP SOURCE MATERIAL REMOVAL EXTENTS

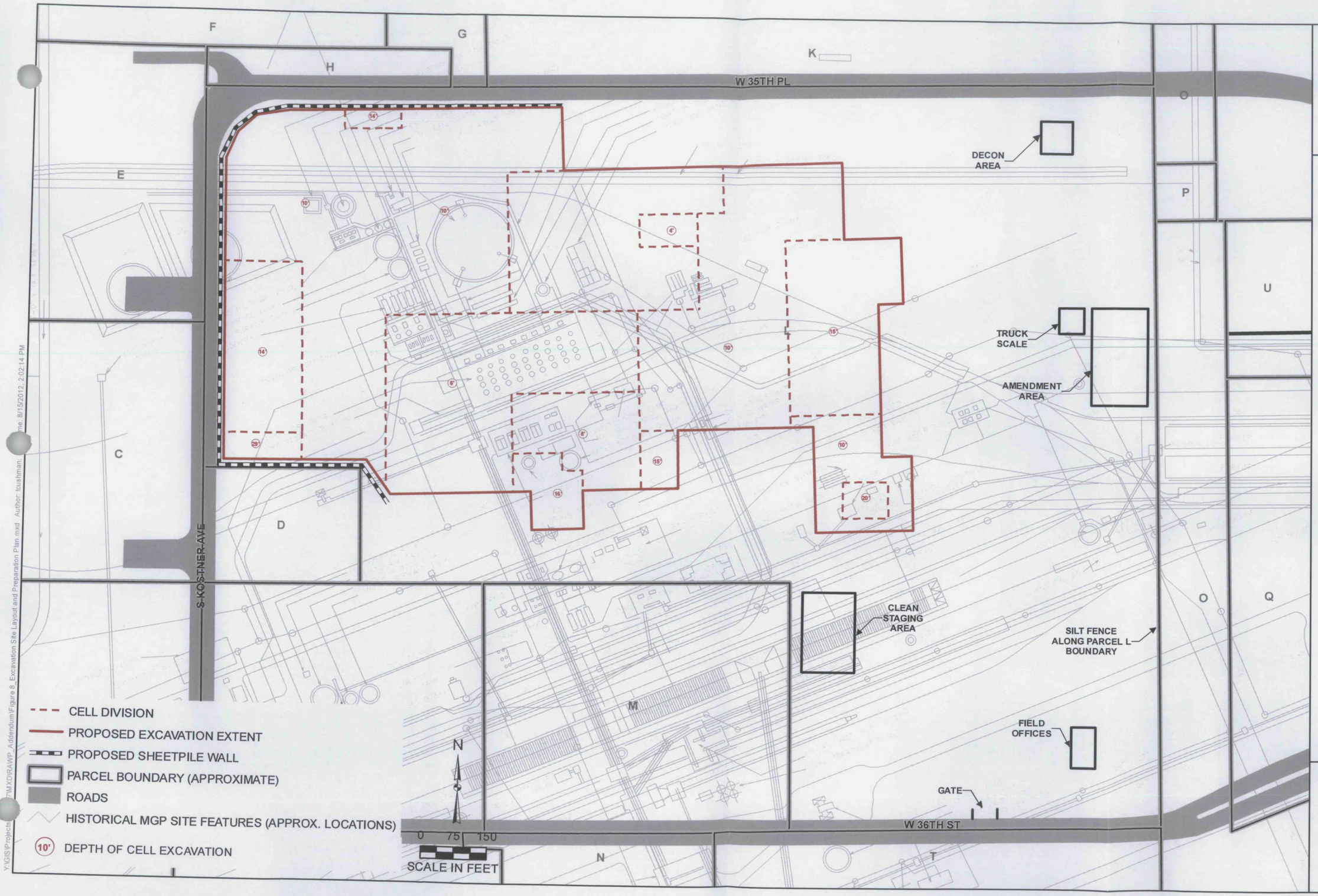
REMOVAL ACTION WORK PLAN ADDENDUM 1 - PARCEL L
CRAWFORD STATION SITE
CHICAGO, ILLINOIS

PROJECT NO. 2037

FIGURE NO. 7

NATURAL RESOURCE TECHNOLOGY

Y:\GIS\Projects\7MXD\RAWP_Addendum\Figure 7_MGP Source Material Removal Extents.mxd Author: tcushman; Date: 7/14/2012; 2:35:28 PM



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JRR 7/19/12
APPROVED BY/DATE:
JMN 8/6/12

EXCAVATION SITE LAYOUT AND PREPARATION PLAN

REMOVAL ACTION WORK PLAN ADDENDUM 1 - PARCEL L
CRAWFORD STATION SITE
CHICAGO, ILLINOIS

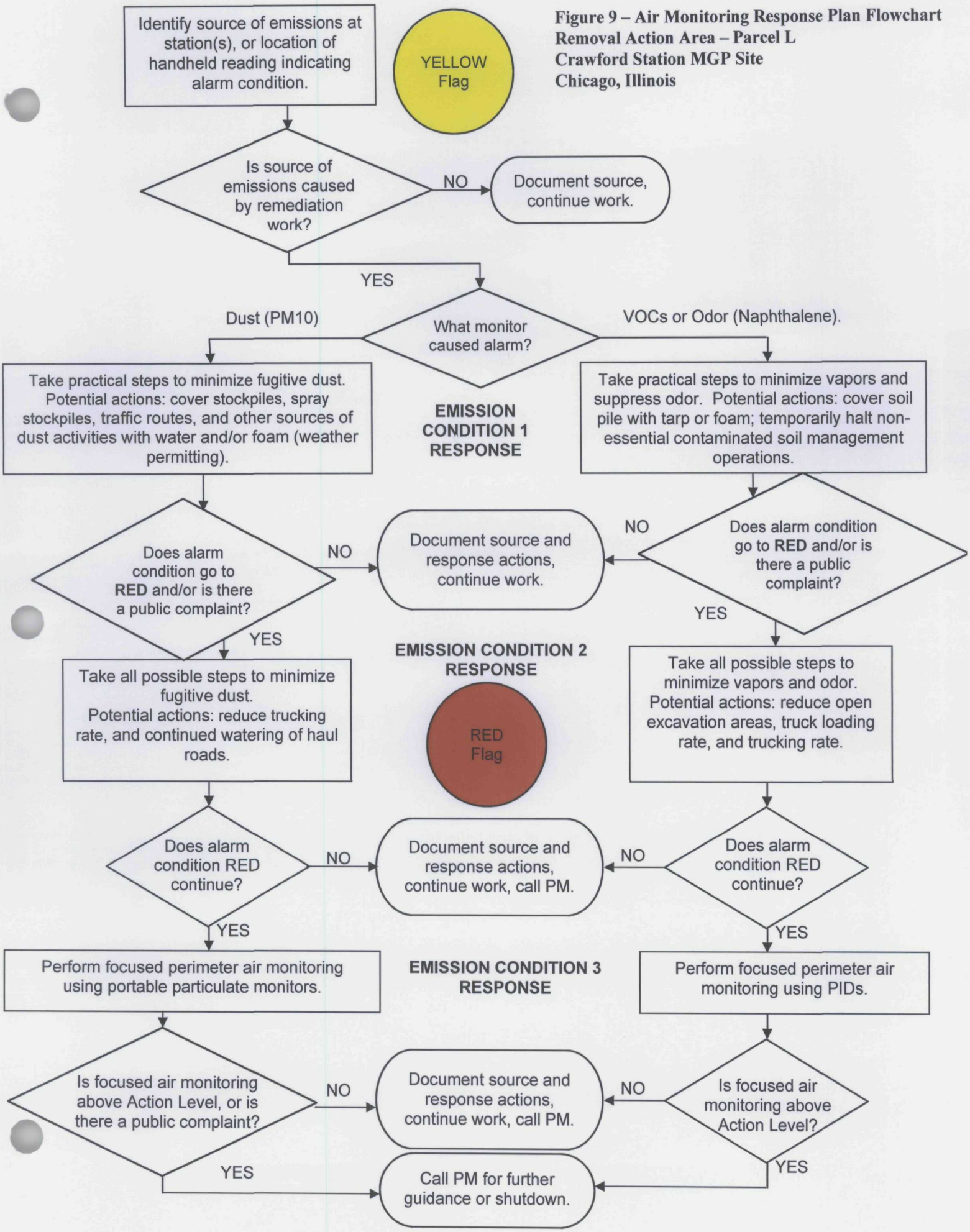
PROJECT NO. 2037

FIGURE NO. 8

NATURAL RESOURCE TECHNOLOGY

Y:\GIS\Projects_7M\XO\RAWP_Addendum\Figure 8_Excavation Site Layout and Preparation Plan.mxd Author: tcushman Time: 8/15/2012, 2:02:14 PM

Figure 9 – Air Monitoring Response Plan Flowchart
Removal Action Area – Parcel L
Crawford Station MGP Site
Chicago, Illinois



TABLES

Table 1 - Sampling and Analysis Plan Summary

Removal Action Area — Parcel L
Crawford Station MGP Site
Chicago, Illinois

Sample Type	Proposed Number Samples[1]	Matrix / Laboratory	Parameter	Method	Estimated Sample Quantity	Field Duplicates[2] (1 extra volume)	MS/MSD[3] (2 extra volumes)	Equipment Blanks[4]	TOTAL[5]	Estimated No. of Containers	Container Type	Minimum Volume	Preservation (Cool All Samples to 4° ± 2°C Unless 'None' Indicated)	Holding Time from Sample Date
Pre-Disposal Samples														
Composite Test Pit Samples	TBD	solid	TCLP Benzene	1311/8260B	TBD	TBD	TBD	TBD	TBD	TBD sets	glass	2 oz	zero headspace	14/28 days
Areas with known or suspected landfill acceptance criteria exceedances	Will be assessed for effectiveness during initial stages of project start-up	fixed												
Post-Amendment Samples														
Composite Stockpile Samples	83	solid	TCLP Benzene	1311/8260B	83	5	5	--	93	93 sets	glass	2 oz	zero headspace	14/28 days
Stockpiles which exceeded landfill acceptance criteria and were amended	1 per 300 cubic yards of soils that have been amended	fixed												
Overburden Soil Sampling														
Composite Stockpile Samples Surface Soils that are anticipated for reuse as backfill	0	solid	TPH GRO	5030/8015B	0	0	0	--	0	0 sets	glass	2 oz	--	14 days
		fixed	TPH DRO	3541/8015	0	0	0	--	0	0 sets	glass	2 oz	--	14/40 days
			PVOCs	5035/8260B	0	0	0	--	0	0 sets	glass	2 oz	--	14 days
	1 per 1,000 cubic yards of soil planned for return to the excavation backfill		PAHs[6]	8270C or 8270 SIM	0	0	0	--	0	0 sets	glass	2 oz	--	14/40 days
			Phenols[7]	8270C	0	0	0	--	0	0 sets	glass	2 oz	--	14/40 days
			Cyanide	9012A	0	0	0	--	0	0 sets	glass	2 oz	--	14 days
			Metals[8]	6020A/7471A	0	0	0	--	0	0 sets	glass	2 oz	--	14/40 days
Post-Excavation Soil Sampling														
Walls and Floors of Excavation	323	solid	TPH GRO	5030/8015B	323	17	17	--	357	357 sets	glass	2 oz	zero headspace	14 days
		fixed	TPH DRO	3541/8015	323	17	17	--	357	357 sets	glass	2 oz	zero headspace	14/40 days
			PVOCs	5035/8260B	323	17	17	--	357	357 sets	glass	2 oz	methanol	14 days
	1 per every 50 feet of wall and 1 per every 2,500 square feet of floor		PAHs[6]	8270C or 8270 SIM	323	17	17	--	357	357 sets	amber glass	4 oz	--	14/40 days
			Phenols[7]	8270C	323	17	17	--	357	357 sets	amber glass	4 oz	--	14/40 days
			Cyanide	9012A	323	17	17	--	357	357 sets	plastic	16 oz	--	14 days
			Metals[8]	6020A/7471A	323	17	17	--	357	357 sets	plastic	16 oz	--	14/40 days

(O-TBN/HMS 7/11)

Notes:

1. Proposed number of samples does not include contingency investigation locations.
2. Field duplicates will be collected at a frequency of 1 per 10 or fewer investigative water samples, and 1 per 20 or fewer investigative soil/sediment samples.
3. Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples will be collected at a frequency of 1 per group of 20 or fewer investigative water samples or soil samples. Additional volume will be determined by laboratory requirements.
4. Equipment blanks will be collected at a frequency of 1 per soil sampling day with non-dedicated sampling equipment. Analyses will be same as soil sample analyses.
5. Trip blanks will accompany each cooler containing VOC water samples, including equipment blanks; this is an estimate based on number of days sampling and estimation of number of coolers.
6. PAHs as listed in the Multi-Site RAF including naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo€pyrene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene, 2-methylnaphthalene
7. Phenols as listed in the Multi-Site RAF including 2,4-dimethylphenol, 2-methylphenol, 4-methylphenol, phenol
8. Metals as listed in the Multi-Site RAF including aluminum, antimony, arsenic, barium, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, selenium, silver, vanadium and zinc.

Appendix

APPENDIX A

BURNS & MCDONNELL INVESTIGATION DATA

A1: SITE INVESTIGATION SAMPLING DATA (BORING LOGS AND LABORATORY ANALYTICAL REPORTS), PARCEL L, APRIL 2003

A2: BURNS & MCDONNELL SOIL BORING AND TEST PIT LOGS

(INCLUDED ON CD)

APPENDIX B

PRE-REMOVAL SITE CHARACTERIZATION DATA

APPENDIX B1

SOIL BORING LOGS, MONITORING WELL CONSTRUCTION DIAGRAMS, AND TEST PIT LOGS

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-501

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___° ___' ___"
Long ___° ___' ___"

Local Grid Location ☒ N ☒ E
4631184.21 Feet ☐ S 439206.67 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 42		1	0 - 1.8' **FILL, WELL-GRADED SAND WITH GRAVEL** : (GW)s, grayish brown (10YR 5/2), crushed asphalt sand and gravel, loose, dry.	(GW)s				0.25					
			2	1.8 - 2.6' **LEAN CLAY** to **SILT** : CL, light brown (7.5YR 6/3), orange mottles, very stiff, dry.	CL									
			3					0.8	3.5					
			4	2.6 - 5' **LEAN CLAY** to **SILT** : CL, dark brown (7.5YR 3/3), trace gravel, dark brown (7.5YR 5/2) to black (10YR 2/1), soft, dry.	CL									
2 CS	60 46		5					0.4	0					
			6	4' petroleum-like odor.	(SW-SM)g									
			7	5 - 6.4' **WELL-GRADED SAND WITH GRAVEL** : (SW-SM)g, trace silt, brown (7.5YR 6/3) to black (10YR 2/1), soft, wet.	CL				2.75					
			8	6.4 - 8' **LEAN CLAY** to **SILT** : CL, trace gravel, dark brown (7.5YR 5/2) to black (10YR 2/1), light brown (7.5YR 3/3) mottles.	CL				0.5					
			9											
			10											
3 CS	60 44		11	8 - 10' **LEAN CLAY** to **SILT** : CL, light brown (7.5YR 6/3), trace gravel and cinders, gray mottles, very stiff, wet.	(SW-SM)g									
			12	10 - 11' **WELL-GRADED SAND WITH GRAVEL** : (SW-SM)g, dark gray (10YR 4/1), trace silt, wet.	CL				3.5					
			13						0.25					
			14	11 - 15' **LEAN CLAY** to **SILT** : CL, dark gray (10YR 4/1), soft to very stiff, moist.										
			15						0.5					
4 CS	60 10		16	15 - 20' **SANDY LEAN CLAY** : s(CL), sandy, trace gravel, soft, wet.	s(CL)									
			17											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Natural Resource Technology, Inc. 300 S Wacker Drive, Suite 2050 Chicago, IL 60606	Tel: 312-465-1740 Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			18 19 20	15 - 20' **SANDY LEAN CLAY** : s(CL), sandy, trace gravel, soft, wet. *(continued)*	s(CL)				1 0.5					
				20' End of boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-503

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
4631188.47 Feet ☐ S 439099.63 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 31		1 2	**0 - 2' FILL, WELL-GRADED SAND WITH GRAVEL :** (SW)g, brown (7.5YR 5/2), crushed asphalt, sand, and gravel, loose.	(SW)g				0.25					
			3 4 5 6 7	**2 - 7.2' FILL, LEAN CLAY WITH SAND to POORLY-GRADED GRAVEL :** s(CL), dark brown (7.5YR 3/3), trace cinders, stiff.	s(CL)				3.5					
2 CS	60 53								2					
			8 9 10 11	**7.2 - 11.6' LEAN CLAY to SILT :** CL, light brown (7.5YR 6/3), trace gravel, gray with mottles, moist to wet at approx 11 ft.	CL				1.75					
3 CS	60 53								0.25					
			12 13 14	**11.6 - 15' LEAN CLAY to SILT :** CL, light brown (7.5YR 6/3), sheen, trace gravel and sand, gray (10YR 5/1) mottles, sheen and petroleum-like odor.	CL			40.6						
4 CS	60 0		15 16 17	15 - 20' no recovery, wet.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Natural Resource Technology, Inc. 300 S. Wacker Drive, Suite 2050 Chicago, IL 60606	Tel: 312-465-1740 Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				15 - 20' no recovery, wet. *(continued)*										
			18											
			19											
			20	20' End of boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-504

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐ | Lat ___ ° ___ ' ___ " | Local Grid Location ☒ N ☒ E

State Plane N, E S/C/N | Long ___ ° ___ ' ___ " | 4631143.49 Feet ☐ S 439174.03 Feet ☐ W

1/4 of 1/4 of Section , T N, R

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 48		1	0 - 1.8' **FILL, WELL-GRADED SAND WITH GRAVEL** : (SW)g, crushed asphalt sand and gravel with trace red brick and cinders, loose.	(SW)g				0.25					
			2	1.8 - 5.7' **FILL, LEAN CLAY** to **SILT** : CL, brown (7.5YR 5/2), trace gravel and cinders, hard.	CL				4.5					
			3											
			4											
2 CS	60 41		5	5' light brown (7.5YR 6/3), trace odor.				6.9						
			6	5.7 - 6.5' **WELL-GRADED SAND WITH GRAVEL** : (SW)g, light brown (7.5YR 6/3), loose.	(SW)g				1					
			7	6.5 - 7.6' **SANDY LEAN CLAY** : s(CL), dark brown (7.5YR 3/3), petroleum-like odor.	s(CL)			2						
			8	7.6 - 10' **LEAN CLAY** to **SILT** : CL, light brown (7.5YR 6/3), trace gravel, gray (10YR 6/1) mottles, hard.	CL				4.5					
			9											
			10											
3 CS	60 43		11	10 - 11.6' **SANDY LEAN CLAY WITH GRAVEL** : s(CL)g, brown (7.5YR 5/2), firm, moist.	s(CL)g				1.25					
			12	11.6 - 12.2' **SANDY LEAN CLAY** : s(CL), light brown (7.5YR 6/3), stained gray (10YR 6/1), soft, petroleum-like odor.	s(CL)			1.4						
			13	12.2 - 15' **GRAVELLY LEAN CLAY** to **SILT** : g(CL), light brown (7.5YR 6/3), gray mottles, hard.	g(CL)				4.5					
			14											
			15											
4 CS	60 53		16	15 - 16' **GRAVELLY LEAN CLAY** to **SILT** : g(CL), gray (10YR 6/1), soft,	g(CL) CL				0.75					
			17											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606
Tel: 312-465-1740
Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			18 19 20	moist. 16 - 20' LEAN CLAY to SILT : CL, light brown (7.5YR 6/3), trace gravel, hard, color change to gray (10YR 6/1) with depth. *(continued)*	CL				4.5					
				20' End of boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-505

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R
Lat ___° ___' ___"
Long ___° ___' ___"
Local Grid Location ☒ N ☒ E
463118.59 Feet ☐ S 439175.37 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 43		1	**0 - 1.4' FILL, WELL-GRADED SAND WITH GRAVEL :** (SW)g, gray (10YR 6/1), crushed asphalt sand and gravel.	(SW)g				0.5					
			2	**1.4 - 2.3' FILL, LEAN CLAY to SILT :** CL, light brown (7.5YR 6/3), trace cinders and red brick fill, very stiff.	CL									
			3	**2.3 - 5' FILL, SANDY LEAN CLAY :** s(CL), cinders and trace gravel, dark brown (7.5YR 3/3) to black (10YR 2/1), very stiff.	s(CL)				3.75					
2 CS	60 43		5	**5 - 6.2' WELL-GRADED SAND WITH GRAVEL :** (SW)g, trace cinders, light brown (7.5YR 6/3) and gray (10YR 6/1), loose.	(SW)g				0.5					
			8	**6.2 - 10' SANDY LEAN CLAY :** s(CL), black (10YR 2/1), cinders and trace gravel, loose.	s(CL)									
			9	7.7' -9.5' Oil coated, strong petroleum-like odor.				11.1	1					
3 CS	60 43		10	**10 - 11' LEAN CLAY to SILT :** CL, black (10YR 2/1), cinders and trace gravel, trace staining.	CL				0.75					
			12	**11 - 14' FILL, LEAN CLAY to SILT :** CL, light brown (7.5YR 6/3), trace gravel, gray mottles, hard.	CL				4.5					
			14	**14 - 15' FILL, LEAN CLAY to SILT :** CL, gray (10YR 6/1), trace gravel, hard.	CL									
4 CS	60 60		15	**15 - 15.4' FILL, SANDY LEAN CLAY :** s(CL), black (10YR 2/1), cinders, moist, loose.	s(CL) s(CL)g				1.25					
			17											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606
Tel: 312-465-1740
Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
				15.4 - 17.8' **FILL, LEAN CLAY WITH SAND** to **LEAN CLAY WITH GRAVEL :** s(CL)g, light brown (7.5YR 6/3), gray staining (10YR 6/1). *(continued)* 17' -17.8' Petroleum-like odor.	s(CL)g			69.3						
			18											
			19		CL				4.5					
			20	17.8 - 20' **LEAN CLAY** to **SILT :** CL, gray (10YR 6/1), trace gravel.										
				20' End of boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-506

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___° ___' ___"
Long ___° ___' ___"

Local Grid Location
☒ N 431074.63 Feet ☐ S ☒ E 439164.74 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 45.6		1	0 - 1.6' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (7.5YR 6/1), Crushed asphalt, sand and gravel, loose.	(GW)s									
			2	1.6 - 2.2' **SANDY LEAN CLAY :** s(CL), brown (7.5YR 5/2), trace gravel, moist, soft.	s(CL)				0.25					
			3	2.2 - 5' **LEAN CLAY** to **SILT :** CL, light brown (7.5YR 6/3), trace sheen, trace red brick and cinders stringers, firm.	CL				1.75					
2 CS	60 31.2		5	5 - 9.4' **SANDY LEAN CLAY :** s(CL), dark brown (7.5YR 3/3), trace gravel, firm.					1.25					
			6	6.1' -9.4' Black (10YR 2/1), cinders, trace gravel, orange mottling, firm.	s(CL)				1.25					
			8	8' -9' staining.										
			9											
			10	9.4 - 10' **LEAN CLAY** to **SILT :** CL, black (10YR 2/1), orange mottling.	CL			14.7						
3 CS	60 36		11	10 - 11.8' **SANDY LEAN CLAY WITH GRAVEL :** s(CL)g, brown (7.5YR 5/2), some gravel, wet, Petroleum-like odor.	s(CL)g				0.25					
			13	11.8 - 15' **LEAN CLAY** to **SILT :** CL, light brown (7.5YR 6/3), trace gravel and cinder stringers, stiff.	CL				2.25					
4 CS	60 60		15	15 - 19.2' **SANDY LEAN CLAY WITH GRAVEL :** s(CL)g, black (10YR 2/1), some gravel, soft, wet.	s(CL)g			10.6 11	6.25					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606
Tel: 312-465-1740
Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			18	15 - 19.2' **SANDY LEAN CLAY WITH GRAVEL :** s(CL)g, black (10YR 2/1), some gravel, soft, wet. *(continued)*	s(CL)g				6.25					
			19											
			20	19.2 - 20' **GRAVELLY LEAN CLAY** to **SILT :** g(CL), gray (7.5YR 6/1), some gravel, firm.	g(CL)									
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-507

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R
Lat ___° ___' ___"
Long ___° ___' ___"
Local Grid Location ☒ N ☒ E
463104.91 Feet ☐ S 439163.37 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 45.6		1	0 - 1' **FILL, WELL-GRADED GRAVEL WITH SAND** : (GW)s, light brown (7.5YR 6/3), Crushed asphalt, sand and gravel, loose.	(GW)s				0.25					
			2	1 - 1.6' **FILL, POORLY-GRADED GRAVEL** : GP, gray (7.5YR 5/1), crushed virgin limestone gravel fill.	GP									
			3	1.6 - 6.8' **FILL, LEAN CLAY** to **SILT** : CL, dark brown (7.5YR 3/3), some gravel and cinders, trace red brick, orange mottling, stiff to very stiff.	CL				2.25					
2 CS	60 60		5											
			6						2.75					
			7	6.8 - 9.4' **LEAN CLAY WITH GRAVEL** to **SILT** : (CL)g, brown (7.5YR 5/2), some black motling, stiff.	(CL)g				2.25					
			8											
			9											
			10	9.4 - 10' **SILT** : ML, black (10YR 2/1), trace gravel, soft.	ML									
3 CS	60 45.6				CL									
			11	10 - 10.9' **LEAN CLAY** to **SILT** : CL, light brown (7.5YR 6/3), trace gravel, soft.	ML				1.25					
			12	10.9 - 11.2' **SILT** : ML, black (10YR 2/1), soft.	CL									
			13	11.2 - 13.2' **LEAN CLAY** to **SILT** : CL, dark gray (10YR 4/1), petroleum-like odor, soft, moist.				0	0.25					
			14											
4 CS	60 48		15	13.2 - 16.2' **WELL-GRADED GRAVEL WITH SAND** : (GW)s, black (10YR 2/1), moist, soft, staining 13.2'-15.2'.	(GW)s									
			16	15' water table.					0.5					
			17		CL									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606
Tel: 312-465-1740
Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			18	16.2 - 17.4' **LEAN CLAY** to **SILT :** CL, brown (7.5YR 5/2), moist, soft. *(continued)*	GP									
			19	17.4 - 18.1' **POORLY-GRADED GRAVEL :** GP, gray (7.5YR 5/1), crushed limestone.	CL				0.5					
			20	18.1 - 20' **LEAN CLAY** to **SILT :** CL, brown (7.5YR 5/2), moist, soft.										
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-508

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___° ___' ___"
Long ___° ___' ___"

Local Grid Location ☒ N ☒ E
463034.23 Feet ☐ S 439185.8 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 36		1	0 - 1' **FILL, WELL-GRADED GRAVEL WITH SAND** : (GW)s, brown (7.5YR 5/2), Crushed asphalt, sand and gravel, loose.	(GW)s									
			2	1 - 1.4' **FILL, POORLY-GRADED GRAVEL** : GP, gray (7.5YR 5/1), crushed limestone gravel fill.	GP				0.5					
			3	1.4 - 6' **FILL, SANDY LEAN CLAY** : s(CL), dark brown (7.5YR 3/3), trace gravel, cinders, moist.	s(CL)				4.5					
			4											
2 CS	60 28.8		5											
			6	6 - 7.2' **SANDY LEAN CLAY** : s(CL), light brown (7.5YR 6/3), trace gravel, soft.	s(CL)				3.75					
			7	7.2 - 7.6' **WELL-GRADED GRAVEL WITH SAND** : (GW)s, black (10YR 2/1), sand and gravel, soft.	(GW)s									
			8	7.6 - 10.7' **SANDY LEAN CLAY** to **SILT** : s(CL), brown (7.5YR 5/2), trace gravel, orange mottling.	s(CL)				4.5					
			9											
3 CS	60 36		10											
			11	10.7 - 11.5' **WELL-GRADED GRAVEL WITH SAND** : (GW)s, black (10YR 2/1), trace sheen, sand and gravel.	(GW)s			0	1.75					
			12	11.5 - 12.6' **LEAN CLAY** to **SILT** : CL, light brown (7.5YR 6/3), trace gravel.	CL									
			13	12.6 - 15' **LEAN CLAY** to **SILT** : CL, black (10YR 2/1), some sand, trace gravel, soft.	CL				1.25					
			14											
4 CS	60 43.2		15	15 - 16.4' **WELL-GRADED GRAVEL WITH SAND** : (GW)s, black (10YR 2/1), sand and gravel, soft.	(GW)s				0.75					
			16		CL									
			17											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606

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Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			18 19 20	16.4 - 20' **LEAN CLAY** to **SILT :** CL, dark gray (10YR 4/1), trace gravel. *(continued)*	CL				1.25					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-509

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
463009.46 Feet ☐ S 439273.28 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 28.8		1	0 - 1.4' **FILL, WELL-GRADED GRAVEL WITH SAND** : (GW)s, gray (2.5Y 5/1), crushed asphalt, sand and gravel, medium dense.	(GW)s				0.5					
			2	1.4 - 5.4' **SANDY LEAN CLAY** : s(CL), dark gray (10YR 4/1), trace gravel and cinders, stiff, staining.	s(CL)									
			3											
			4						2.25					
			5	4.5' Strong odor.				289.2						
2 CS	60 60		6	5.4 - 10' **LEAN CLAY to SILT** : CL, light brown (7.5YR 6/3), trace gravel, gray staining near top of 5.4' to 7.8'.					3.5					
			7											
			8		CL									
			9						4.5					
			10	10 - 12.2' **LEAN CLAY to SILT** : CL, gray (2.5Y 5/1), trace gravel, wet, soft.										
3 CS	60 3.6		11		CL				0.25					
			12	12.2 - 15' **LEAN CLAY to SILT** : CL, light brown (7.5YR 6/3), trace gravel, soft.										
			13		CL									
			14						0.25					
			15	15 - 20' **LEAN CLAY to SILT** : CL, gray (2.5Y 5/1), trace gravel, soft.										
4 CS	60		16		CL				0.25					
			17											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Natural Resource Technology, Inc. 300 S. Wacker Drive, Suite 2050 Chicago, IL 60606	Tel: 312-465-1740 Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			18 19 20	15 - 20' **LEAN CLAY** to **SILT :** CL, gray (2.5Y 5/1), trace gravel, soft. *(continued)*	CL				0.25					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-510

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
1067.05 Feet ☐ S 439255.24 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 40.8		1, 2	0 - 2.9' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (7.5YR 5/1), Crushed asphalt, sand and gravel, loose.	(GW)s				0.25					
			3, 4	2.9 - 5' **LEAN CLAY to SILT :** CL, dark brown (7.5YR 3/3), trace gravel and cinders, very stiff.	CL				4					
2 CS	60 57.6		5, 6	5 - 5.6' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, brown (7.5YR 5/2), sand and gravel, loose.	(GW)s			4.9	2.5					
			7, 8	5.6 - 7' **LEAN CLAY to SILT :** CL, black (10YR 2/1), trace gravel, trace staining, stiff.	CL			6	0.75					
			9	7 - 8.2' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, black (10YR 2/1), trace sheen, sand and gravel, soft.	(GW)s									
3 CS	60 32.4		10, 11	8.2 - 10' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, light brown (7.5YR 6/3), sand and gravel, trace silt.	(GW)s									
			12, 13	10 - 11.4' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (7.5YR 5/1), sand and gravel, soft, wet.	SP									
			14	11.4 - 15' **POORLY-GRADED SAND :** SP, black (10YR 2/1), trace gravel, moist.					0.25					
4 CS	60 30		15, 16	15 - 16.4' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, sand and gravel, wet, apparent riverbed.	(GW)s				0.25					
			17		s(CL)				0					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606
Tel: 312-465-1740
Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			18 19 20	16.4 - 20' **SANDY LEAN CLAY** to **SILT :** s(CL), brown (7.5YR 5/2), moist. *(continued)*	s(CL)			2.4	0.25					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-511

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
4631075.01 Feet ☐ S 439252.12 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 44.4		1, 2, 3	0 - 3.2' **FILL, WELL-GRADED GRAVEL WITH SAND** : (GW)s, brown (7.5YR 5/2), Crushed asphalt, sand and gravel, loose.	(GW)s				0					
			4	3.2 - 5' **LEAN CLAY** to **SILT** : CL, brown (7.5YR 5/2), trace gravel and cinders.	CL				4.5					
2 CS	60 60		5, 6	5 - 6.6' **SANDY LEAN CLAY** : s(CL), brown (7.5YR 5/2), some gray (10YR 4/1) limestone gravel, trace cinders.	s(CL)				1					
			7, 8	6.6 - 7.4' **WELL-GRADED GRAVEL WITH SAND** to **SILT** : (GW)s, gray (10YR 4/1), crushed limestone with trace black (10YR 2/1) clay.	(GW)s			8	3.75					
3 CS	60 30		9, 10, 11	7.4 - 11.7' **SANDY LEAN CLAY** : s(CL), brown (7.5YR 5/2), trace sheen, trace gravel, cinders, orange mottling.	s(CL)									
4 CS	60		12, 13, 14, 15, 16, 17	11.7 - 18.4' **POORLY-GRADED SAND** : SP, black (10YR 2/1), sand and gravel, wet, loose. some rounded pebbles, apparent river bottom.	SP									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

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Template: SOIL BORING - Project: CRAWFORD STATION BORING LOGS.GPJ

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			18		SP									
			19	18.4 - 20' **SANDY LEAN CLAY :** s(CL), brown (7.5YR 5/2), trace gravel, moist.	s(CL)									
			20	20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-512

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S / C / N
1/4 of 1/4 of Section , T N, R

Lat ___° ___' ___"
Long ___° ___' ___"

Local Grid Location
☒ N ☒ E
4631084.87 Feet ☐ S 439247.81 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 45.6		1, 2	0 - 2.7' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, brown (7.5YR 5/2), Crushed asphalt, sand and gravel, loose.	(GW)s				0					
2 CS	60 60		3, 4, 5, 6, 7	2.7 - 7.8' **LEAN CLAY to SILT :** CL, brown (7.5YR 5/2), trace gravel, cinders, 1" cinder stringer, very stiff.	CL			0.4	3.25 3 4.5					
			8, 9	7.8 - 9.5' **LEAN CLAY to SILT :** CL, black (10YR 2/1), trace sheen, trace gravel, stiff.	CL				1					
3 CS	60 33.6		10, 11	9.5 - 10' **WELL-GRADED GRAVEL WITH SAND to SILT :** (GW)s, gray (10YR 4/1), crushed limestone.	(GW)s									
			12	10 - 11.8' **SANDY LEAN CLAY WITH GRAVEL :** s(CL)g, black (10YR 2/1), orange sand stringers, soft.	s(CL)g				1					
4 CS	60 38.4		13, 14, 15, 16	11.8 - 16' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, black (10YR 2/1), sand and gravel, round pebbles, wet, apparent river bed. 15.5' Petroleum-like odor.	(GW)s			15.5	1					
			17	16 - 20' **LEAN CLAY to SILT :** CL,	CL				1					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

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NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			18 19 20	black (10YR 2/1), trace gravel, moist. 16 - 20' **LEAN CLAY** to **SILT :** CL, black (10YR 2/1), trace gravel, moist. *(continued)*	CL				1					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-513

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S / C (N)
1/4 of 1/4 of Section , T N, R
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location ☒ N ☒ E
463 1096.19 Feet ☐ S 439242.5 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 49.2		1 2	0 - 3' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, Crushed asphalt, sand and gravel, loose with black (10YR 2/1) clay.	(GW)s				0.25					
			3 4	3 - 5' **LEAN CLAY to SILT :** CL, dark brown (7.5YR 3/3), trace gravel and cinders.	CL				4.5					
2 CS	60 60		5 6	5 - 6.2' **WELL-GRADED GRAVEL WITH SAND to SILT :** (GW)s, brown (7.5YR 5/2), some brown (7.5YR 5/2) clay.	(GW)s				3.5					
			7 8 9 10	6.2 - 12' **SANDY LEAN CLAY :** s(CL), brown (7.5YR 5/2), orange mottling, moist, 1" cinder stringers, 2" gravel stringers. 7' Faint odor.	s(CL)				2.75					
3 CS	60 40.8		11 12						0.25					
			13	12 - 12.6' **WELL-GRADED GRAVEL WITH SAND to SILT :** (GW)s, light brown (7.5YR 6/3), sand and gravel, wet.	(GW)s									
			14 15	12.6 - 14' **LEAN CLAY to SILT :** CL, light brown (7.5YR 6/3), some gravel, moist, soft.	CL				1.75					
4 CS	60 7.2		16 17	14 - 15' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, black), sand and gravel, wet, loose.	(GW)s				0.25					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Natural Resource Technology, Inc. 300 S. Wacker Drive, Suite 2050 Chicago, IL 60606	Tel: 312-465-1740 Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			18 19 20	15 - 20' **LEAN CLAY** to **SILT :** CL, light brown (7.5YR 6/3), some sand and trace gravel, very soft, wet. *(continued)*	CL				0.25					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-514

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
463134.84 Feet ☐ S 439260.22 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 42		1, 2	0 - 2.5' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (10YR 6/1), Crushed asphalt, sand and gravel, trace red brick and cinders.	(GW)s			1	0.25					
			3, 4, 5	2.5 - 5.4' **LEAN CLAY to SILT :** CL, brown (7.5YR 5/2), trace gravel and cinders, dry.	CL				4.25					
2 CS	60 44.4		6	5.4 - 6' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, brown (7.5YR 5/2), sand and gravel, dry, loose.	(GW)s			0.8	3.25					
			7	6 - 7' **LEAN CLAY to SILT :** CL, brown (7.5YR 5/2), some sand, dry.	CL									
			8, 9	7 - 7.4' **SANDY LEAN CLAY :** s(CL), black (10YR 2/1), gravel, cinders.	s(CL)				4.5					
3 CS	60 36		10	7.4 - 9.2' **LEAN CLAY to SILT :** CL, brown (7.5YR 5/2), trace gravel, cinders.	CL			3.3						
			11, 12	9.2 - 10' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, black (10YR 2/1), cinders, moist, faint.	(GW)s				1.5					
			13	10 - 12' **LEAN CLAY to SILT :** CL, brown (7.5YR 5/2), gravel, moist.	CL									
			14	12 - 15' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, black (10YR 2/1), sand and gravel, loose, wet.	(GW)s			14.6	0.75					
4 CS	60 60		15, 16	15 - 16.6' **SANDY LEAN CLAY :** s(CL), black (10YR 2/1), odor present, some gravel, wet.	s(CL)				0.4					
			17		s(CL)									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Natural Resource Technology, Inc. 300 S. Wacker Drive, Suite 2050 Chicago, IL 60606	Tel: 312-465-1740 Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			18	16.6 - 18' **SANDY LEAN CLAY :** s(CL), gray (10YR 6/1), wet, faint odor. *(continued)*	s(CL)				0.5					
			19	18 - 20' **LEAN CLAY** to **SILT :** CL, light brown (7.5YR 6/3), moist.	CL									
			20	20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-518

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C (N)
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
463 1057.86 Feet ☐ S 439422.34 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 48		1, 2, 3	0 - 3.4' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, brown (7.5YR 5/2), Crushed asphalt, sand and gravel, loose.	(GW)s				0.25					
			4	3.4 - 5' **LEAN CLAY to SILT :** CL, brown (7.5YR 5/2), trace sheen, trace gravel and cinders.	CL				4.5					
2 CS	60 43.2		5, 6	5 - 6' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, dark brown (7.5YR 3/3) to black (10YR 2/1) sand and gravel, soft.	(GW)s			0.4						
			7, 8	6 - 8.2' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, sand and gravel (also orange brown color present), trace cinders. 7' trace sheen.	(GW)s				0					
3 CS	60 43.2		9, 10	8.2 - 10.8' **LEAN CLAY to SILT :** CL, dark gray (10YR 4/1), with cinders.	CL				1					
			11, 12	10.8 - 11.8' **SANDY LEAN CLAY :** s(CL), brown (7.5YR 5/2), some gravel, moist.	s(CL)				1					
			13, 14	11.8 - 14.9' **LEAN CLAY to SILT :** CL, black (5YR 2.5/1), trace gravel, moist, staining.	CL			4.8	3.25					
4 CS	60 57.6		15, 16, 17	14.9 - 16' **SANDY LEAN CLAY WITH GRAVEL :** s(CL)g, brown (7.5YR 5/2), some gravel, trace staining.	s(CL)g CL			6.2	1					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Natural Resource Technology, Inc. 300 S Wacker Drive, Suite 2050 Chicago, IL 60606	Tel: 312-465-1740 Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			18	16 - 19' **LEAN CLAY** to **SILT :** CL, black (5YR 2.5/1), trace gravel, staining, odor present. *(continued)*	CL				1.25					
			19	19 - 20' **LEAN CLAY** to **SILT :** CL, light brown (7.5YR 6/3), gray (10YR 4/1) mottles.	CL									
			20	20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-519

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location
☒ N 431004.43 Feet ☐ S ☒ E 439404.74 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 49.2		1, 2, 3	0 - 3.4' **FILL, WELL-GRADED GRAVEL WITH SAND** : (GW)s, gray (10YR 6/1), Crushed asphalt, sand and gravel, loose, dry.	(GW)s				0.25					
2 CS	60 50.4		4, 5, 6, 7	3.4 - 20' **LEAN CLAY** to **SILT** : CL, dark brown (7.5YR 3/3), trace gravel and cinders stringers.					4.5 4.5					
3 CS	60		8, 9, 10, 11, 12	8' black (10YR 2/1), -11.2' dark brown (7.5 3/3) some sand, trace gravel. 9' faint odor, trace staining. 11.2' black (10YR 2/1), -20' gray (10YR 6/1) with light brown (7.5Y 6/3) mottles.	CL				1.5 0.25					
4 CS	60		13, 14, 15, 16, 17						1 0.25					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606
Tel: 312-465-1740
Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			18 19 20	3.4 - 20' **LEAN CLAY** to **SILT :** CL, dark brown (7.5YR 3/3), trace gravel and cinders stringers. *(continued)*	CL				3					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-520

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location
☒ N 463034.78 Feet ☐ S ☒ E 439414.78 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 40.8		1, 2	0 - 2.1' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (10YR 6/1), Crushed asphalt, sand and gravel, loose.	(GW)s				0.25					
			3, 4, 5	2.1 - 5.2' **LEAN CLAY** to **SILT :** CL, brown (7.5YR 5/2), trace gravel and red brick.	CL				4.5					
2 CS	60 43.2		6	5.2 - 5.6' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, brown (7.5YR 5/2), sand and gravel, loose, dry.	(GW)s				1.25					
			7, 8	5.6 - 6.6' **SANDY LEAN CLAY WITH GRAVEL :** s(CL)g, brown (7.5YR 5/2), trace cinders.	s(CL)g									
			9	6.6 - 8' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, dark brown (7.5YR 3/3), trace sheen, sand and gravel, trace cinders.	(GW)s			0.8	2.5					
3 CS	60 14.4		10, 11, 12	8 - 10' **LEAN CLAY** to **SILT :** CL, light brown (7.5YR 6/3), with gray (10YR 6/1) mottles and trace gravel.	CL				1.25					
			13, 14, 15	10 - 15' **SANDY LEAN CLAY WITH GRAVEL :** s(CL)g, brown (7.5YR 5/2), moist.	s(CL)g				1.25					
4 CS	60 60		16, 17	15 - 19' **CLAYEY SAND :** SC, gray (10YR 6/1), trace gravel.	SC				0					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606

Tel: 312-465-1740
Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			18	15 - 19' **CLAYEY SAND** : SC, gray (10YR 6/1), trace gravel. *(continued)*	SC									
			19	19 - 20' **LEAN CLAY** to **SILT** : CL, light brown (7.5YR 6/3), trace gravel.	CL				0.25					
			20	20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-521

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S / C / N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
463082.34 Feet ☐ S 439418.41 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 43.2		1, 2, 3	0 - 3.2' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (10YR 6/1), Crushed asphalt, sand and gravel, loose.	(GW)s				0.5					
			4, 5	3.2 - 5.6' **LEAN CLAY** to **SILT :** CL, brown (7.5YR 5/2), trace gravel and cinders.	CL				4.5					
2 CS	60 57.6		6, 7, 8, 9	5.6 - 9.4' **SANDY LEAN CLAY** to **SILT :** s(CL), brown (7.5YR 5/2), trace gravel.	s(CL)				4.5 4.5					
3 CS	60 60		10, 11, 12, 13, 14	9.4 - 20' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, black (5YR 2.5/1), trace silt.	(GW)s				0 0 0					
4 CS	60 9.6		15, 16, 17						0 0					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Natural Resource Technology, Inc. 300 S. Wacker Drive, Suite 2050 Chicago, IL 60606	Tel: 312-465-1740 Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			18 19 20	9.4 - 20' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, black (5YR 2.5/1), trace silt. *(continued)*	(GW)s				0					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-522

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S / C / N
1/4 of 1/4 of Section , T N, R

Lat ___° ___' ___"
Long ___° ___' ___"

Local Grid Location ☒ N ☒ E
463 1057.41 Feet ☐ S 439403.87 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 / 45.6		1, 2, 3	**0 - 3' FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (10YR 6/1), Crushed asphalt, sand and gravel, loose.	(GW)s				0.25					
			4, 5	**3 - 5.4' LEAN CLAY to SILT :** CL, dark brown (7.5YR 3/3), trace gravel and cinders.	CL				4.5					
2 CS	60		6, 7, 8	**5.4 - 8.2' SANDY LEAN CLAY :** s(CL), brown (7.5YR 5/2), trace gravel and some cinders.	s(CL)				4.5					
3 CS	60		9, 10, 11, 12, 13, 14, 15	**8.2 - 15' LEAN CLAY WITH GRAVEL to SILT :** CL, black (10YR 2/1), trace gravel and sand stringers. 13' -14' wet, odor present.	CL			8.9	0.5 0.25 1.5					
4 CS	60 / 0		16, 17	15 - 20' lost remaining 5' in hole.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Natural Resource Technology, Inc. 300 S Wacker Drive, Suite 2050 Chicago, IL 60606	Tel: 312-465-1740 Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			18	15 - 20' lost remaining 5' in hole. *(continued)*										
			19											
			20	20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-523

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S / C / N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
1031025.05 Feet ☐ S 439311.31 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 50.4		1, 2, 3	0 - 3' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, brown (7.5YR 5/2), Crushed asphalt, sand and gravel, loose.	(GW)s				0.25					
			4	3 - 5' **LEAN CLAY** to **SILT :** CL, brown (7.5YR 5/2), trace gravel, some cinders, and orange mottles.	CL				4.5					
2 CS	60 38.4		5, 6, 7, 8, 9, 10, 11, 12, 13	5 - 13.2' **SANDY LEAN CLAY :** s(CL), brown (7.5YR 5/2), trace gravel.	s(CL)				4.5 4 0.75					
3 CS	60 38.4													
			14, 15, 16, 17	13.2 - 20' **LEAN CLAY** to **SILT :** light brown (7.5YR 6/3), trace gravel, moist. 14.4' -15' black (10YR 2/1), moist. 15' -17.6' gray (10YR 6/1), wet, soft.					1 0.5					
4 CS	60 60													

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Natural Resource Technology, Inc. 300 S Wacker Drive, Suite 2050 Chicago, IL 60606	Tel: 312-465-1740 Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			18 19 20	13.2 - 20' **LEAN CLAY** to **SILT :** light brown (7.5YR 6/3), trace gravel, moist. *(continued)* 17.6' -20' light brown (7.5YR 6/3), moist.					1					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-524

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location
☒ N 631025.15 Feet ☐ S ☒ E 439299.15 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 45.6		1, 2, 3	0 - 3' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (10YR 6/1), Crushed asphalt, sand and gravel, loose.	(GW)s				0.5					
			4	3 - 5' **LEAN CLAY to SILT :** CL, dark brown (7.5YR 3/2), some cinders and trace gravel.	CL				4.5					
2 CS	60 42		5, 6	5 - 5.8' **SANDY LEAN CLAY WITH GRAVEL :** s(CL)g, gray (10YR 6/1).	s(CL)g				0.5					
			7, 8, 9	5.8 - 10' **SANDY LEAN CLAY WITH GRAVEL :** s(CL)g, brown (7.5YR 5/2), trace gravel, cinders 5.8'-6.8' at top of foot.	s(CL)g				3.75					
3 CS	60 45.6		10, 11, 12	10 - 20' **LEAN CLAY to SILT :** CL, gray (10YR 6/1), some gravel, wet.					0.75					
			13, 14	12.8' -15' brown (7.5YR 5/2) trace gravel, moist.	CL				2.5					
4 CS	60 60		15, 16, 17	15' -20' light brown (7.5YR 6/3) trace gravel, moist to wet.					0.75					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606
Tel: 312-465-1740
Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			18 19 20	10 - 20' **LEAN CLAY** to **SILT :** CL, gray (10YR 6/1), some gravel, wet. *(continued)*	CL				0.25					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-525

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
463 1006.57 Feet ☐ S 439290.43 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 / 51.6		1, 2	0 - 2.8' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (7.5YR 5/1), Crushed asphalt, sand and gravel, loose.	(GW)s				0.5					
			3, 4	2.8 - 4.2' **LEAN CLAY** to **SILT :** CL, brown (7.5YR 5/2), trace gravel and cinders, orange mottling.	CL				3.25					
			5	4.2 - 5' **WELL-GRADED GRAVEL WITH SAND** to **SILT :** (GW)s, black (10YR 2/1), sand and gravel with cinders.	(GW)s			0.5						
2 CS	60 / 36		6, 7	5 - 7.5' **SANDY LEAN CLAY :** s(CL), black (10YR 2/1), trace gravel, some cinders.	s(CL)				0.5					
			8, 9, 10	7.5 - 10.6' **LEAN CLAY** to **SILT :** CL, light brown (7.5YR 6/3), trace gravel.	CL				2.25					
3 CS	60		11, 12	10.6 - 12' **SANDY LEAN CLAY** to **SILT :** s(CL), black (10YR 2/1), trace sheen, trace gravel, wet, soft, faint odor.	s(CL)			0.5	1.25					
			13, 14	12 - 15' **LEAN CLAY** to **SILT :** CL, light brown (7.5YR 6/3), trace gravel.	CL				1					
4 CS	60 / 0		15, 16, 17	15 - 20' No recovery from 15'-20'.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Natural Resource Technology, Inc. 300 S. Wacker Drive, Suite 2050 Chicago, IL 60606	Tel: 312-465-1740 Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			18 19 20	15 - 20' No recovery from 15'-20'. *(continued)*										
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-526

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location
☒ N 463103 6.06 Feet ☐ S ☒ E 439247.76 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 48		1, 2, 3	0 - 3.4' **FILL, WELL-GRADED GRAVEL WITH SAND** : (GW)s, gray (7.5YR 5/1), Crushed asphalt, sand and gravel, loose.	(GW)s				0.25					
			4, 5, 6, 7	3.4 - 7.6' **LEAN CLAY** to **SILT** : CL, brown (7.5YR 5/2), trace gravel and sand, trace cinders.	CL				4.5					
2 CS	60 52.8		8, 9, 10, 11, 12, 13, 14	7.6 - 15' **LEAN CLAY** to **SILT** : CL, light brown (7.5YR 6/3), trace gravel and organge mottling.	CL				4.5					
3 CS	60 28.8								4.5					
4 CS	60 45.6		15, 16, 17	15 - 18' **SANDY LEAN CLAY** : s(CL), brown (7.5YR 5/2), some gravel.	s(CL)				3.75					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606
Tel: 312-465-1740
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NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
					s(CL)									
			18	18 - 20' **LEAN CLAY** to **SILT** : CL, black (10YR 2/1), trace gravel.	CL				1.5					
			19											
			20	20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-527

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
463020.95 Feet ☐ S 439034.58 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 52.8		1, 2, 3	**0 - 3' FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (7.5YR 5/1), Crushed asphalt, sand and gravel.	(GW)s				0.5					
			4	**3 - 4.2' FILL, LEAN CLAY to SILT :** CL, dark brown (7.5YR 3/3), trace gravel and cinders.	CL			31.2	2					
2 CS	60 55.2		5, 6	**4.2 - 6' FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, black (5YR 2.5/1), some cinders, trace red bricks, black staining, odor.	(GW)s				1.5					
			7	**6 - 8' SANDY LEAN CLAY :** s(CL), brown (7.5YR 5/2), sand and gravel, soft.	s(CL)									
			8, 9	**8 - 10.8' POORLY-GRADED SAND :** SP, black (5YR 2.5/1), some cinders, trace silt.	SP				1					
3 CS	60 31.2		10, 11, 12, 13	**10.8 - 20' POORLY-GRADED SAND :** SP, brown (7.5YR 5/2), wet, loose, stained black layers.	SP			2.1	0.25					
			14					11	0.25					
4 CS	60 21.6		15, 16, 17					20.6	0.25					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606
Tel: 312-465-1740
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NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			18 19 20	10.8 - 20' **POORLY-GRADED SAND :** SP, brown (7.5YR 5/2), wet, loose, stained black layers. *(continued)*	SP				0.25					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		LSB-528

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
463 1036.68 Feet ☐ S 438947.43 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 55.2		1	0 - 1.4' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (7.5YR 5/1), Crushed asphalt, sand and gravel, loose.	(GW)s				0.25					
			2	1.4 - 2.5' **LEAN CLAY** to **SILT :** CL, brown (7.5YR 5/2), trace gravel and cinders.	CL									
			3											
			4	2.5 - 8' **SANDY LEAN CLAY WITH GRAVEL :** s(CL)g, black (5YR 2.5/1), odor present, trace sheen, cinders.					1.5					
2 CS	60 43.2		5		s(CL)g									
			6						2.5					
			7											
			8	8 - 14.6' **SANDY LEAN CLAY :** s(CL), brown (7.5YR 5/2), moist, gray (7.5YR 5/1) mottling.										
			9						3.25					
3 CS	60 60		10											
			11		s(CL)				2.5					
			12											
			13											
			14					22	0.75					
4 CS	60 60		15	14.6 - 28.3' **POORLY-GRADED SAND :** SP, gray (7.5YR 5/1), with staining.	SP									
			16					21.5	0.25					
			17											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
300 S. Wacker Drive, Suite 2050 Chicago, IL 60606
Tel: 312-465-1740
Fax: 262-523-9001

NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				14.6 - 28.3' **POORLY-GRADED SAND :** SP, gray (7.5YR 5/1), with staining. *(continued)*	SP									
			18											
			19					41.4	0.25					
5 CS	60 60		20											
			21					40	0.25					
			22											
			23											
			24					23	0.25					
6 CS	60 60		25											
			26						0.25					
			27											
			28						0.25					
			29	28.3 - 30' **LEAN CLAY** to **SILT :** CL, gray (7.5YR 5/1).	CL									
			30	30' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		MWL101 (LSB502)

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	590.9 Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
463187.91 Feet ☐ S 439129.16 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 54		1 2	0 - 2.2' **FILL, WELL-GRADED GRAVEL WITH SAND** : (GW)s, dark brown (7.5YR 3/3), crushed asphalt, sand and gravel, loose.	(GW)s				0.25					
			3	2.2 - 3' **FILL, WELL-GRADED GRAVEL** : GW, gray (10YR 6/1), crushed limestone.	GW				3.5					
2 CS	60 39		4 5 6	3 - 6.6' **FILL, LEAN CLAY** to **SILT** : CL, trace gravel, with cinders and red brick fill, dark brown (7.5YR 3/3) to black (10YR 2/1), very stiff, Tar sheen.	CL				3.5					
3 CS	60 58		7 8 9 10	6.6 - 11' **LEAN CLAY** to **SILT** : CL, dark brown (7.5YR 3/3), with fine sand stringers (approx 1") and trace gravel, light brown (7.5YR 6/3) mottles, very stiff.	CL				2.75					
			11 12 13 14	11 - 15' **SANDY LEAN CLAY** to **SILT** : s(CL), light brown (7.5YR 6/3), trace gravel.	s(CL)				2.5 4.5					
			15 16 17	15 - 17.5' **LEAN CLAY** to **SILT** : CL, dark brown (7.5YR 3/3), trace gravel, hard.	CL				4.5					

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Signature	Firm	
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NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
					CL									
			18	17.5 - 20' **LEAN CLAY** to **SILT :** CL, gray (10YR 2/1), trace gravel, hard.	CL				4.5					
			19											
			20	20' End of boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		MWL102 (LSB515)

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	590.9 Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___° ___' ___"
Long ___° ___' ___"

Local Grid Location ☒ N ☒ E
1131152.04 Feet ☐ S 439288.98 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 40.8		1, 2, 3, 4	0 - 4.4' **FILL, WELL-GRADED GRAVEL WITH SAND** : (GW)s, grayish brown (2.5Y 5/2), crushed asphalt, sand and grvel, medium dense, dry.	(GW)s				1					
			5	4.4 - 5' **LEAN CLAY** to **SILT** : CL, dark brown (7.5YR 3/3), trace gravel.	CL				4.5					
2 CS	60 44.4		6, 7	5 - 7.6' **SANDY LEAN CLAY WITH GRAVEL** : s(CL)g, brown (7.5YR 5/2). 6.2' Black (10YR 2/1), cinders.	s(CL)g				0.75					
			8, 9	7.6 - 10' **LEAN CLAY** to **SILT** : CL, gray (10YR 6/1), trace gravel and orange sand stringers.	CL				1.5					
3 CS	60 55.2		10, 11	10 - 11' **WELL-GRADED GRAVEL WITH SAND** : (GW)s, black (10YR 2/1), sand and gravel with trace cinder, moist.	(GW)s				0					
			12	11 - 12.6' **SILT WITH GRAVEL** : (ML)g, brown (7.5YR 5/2), very wet.	(ML)g									
			13, 14	12.6 - 15' **LEAN CLAY** to **SILT** : CL, light brown (7.5YR 6/3), trace gravel, soft.	CL				0.5					
4 CS	60 54		15, 16, 17	15 - 17' **LEAN CLAY** to **SILT** : CL, gray (10YR 6/1), wet.	CL				0.25					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
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NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			18 19 20	17 - 20' **SILT** : ML, gray (10YR 6/1), moist, trace gravel.	ML				3.75					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		MWL103 (LSB516)

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	590.8 Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
4631128.1 Feet ☐ S 439400.46 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample: Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Soil Properties: Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 / 55.2		1, 2, 3	0 - 3' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, grayish brown (2.5Y 5/2), crushed asphalt, sand and gravel, medium dense fill.	(GW)s				1.5				
			4	3 - 5.1' **LEAN CLAY** to **SILT :** CL, dark brown (7.5YR 3/2), with trace gravel.	CL				4.5				
2 CS	60 / 39.6		5, 6	5.1 - 6' **SANDY LEAN CLAY :** s(CL), brown (7.5YR 5/2), with some gravel.	s(CL)				1.75				
			7, 8, 9	6 - 10' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, black (7.5YR 6/3), sand and gravel with cinders and gray (10YR 2/1) gravel stringers, faint odor.	(GW)s				0.5				
3 CS	60 / 43.6		10, 11	10 - 11.4' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, dark brown (7.5YR 3/2), sand and gravel.	(GW)s				1.5				
			12, 13, 14	11.4 - 15' **LEAN CLAY** to **SILT :** CL, light brown (7.5YR 6/3), sheen, some sand and gravel, trace cinder, moist.	CL			0	4.5				
4 CS	60 / 50.4		15, 16, 17	15 - 20' **WELL-GRADED GRAVEL WITH SILT GW-GM, black (7.5YR 6/3) , very wet, silt and gravel, trace shells (possible river bottom).**	GW-GM				0				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
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NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			18 19 20	15 - 20' **WELL-GRADED GRAVEL WITH SILT : GW-GM, black (7.5YR 6/3), very wet, silt and gravel, trace shells (possible river bottom).** ***(continued)***	GW-GM			0					
				20' End of Boring.									

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		MWL104 (LSB517)

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	588.9 Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
4631057.6 Feet ☐ S 439395.16 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 / 57.6		1, 2	0 - 1.9' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, brown (7.5YR 5/2), Crushed asphalt, sand and gravel, loose.	(GW)s				0.5					
			3, 4, 5	1.9 - 5.8' **LEAN CLAY WITH GRAVEL to SILT :** (CL)g, brown (7.5YR 5/2), trace sheen, some gravel and cinders.	(CL)g				4.5					
2 CS	60 / 33.6		6, 7, 8, 9	5.8 - 10' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, black (10YR 2/1), sheen, sand and gravel, cinders, and trace red brick.	(GW)s			3.5	3.5					
									0.25					
3 CS	60		10, 11	10 - 11' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, black (10YR 2/1), sand and gravel, trace silt.	(GW)s				0.25					
			12, 13, 14	11 - 15' **LEAN CLAY to SILT :** CL, light brown (7.5YR 6/3), moist,trace gravel.	CL				0.75					
4 CS	60 / 43.2		15, 16, 17	15 - 16' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, brown (7.5YR 5/2), rounded pebble with some sand.	(GW)s CL				0					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

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NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			18 19 20	16 - 20' **LEAN CLAY** to **SILT :** CL, light brown (7.5YR 6/3), trace gravel. *(continued)*	CL				0.25					
				20' End of Boring.										

SOIL BORING LOG INFORMATION

NATURAL RESOURCE TECHNOLOGY

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		MWL105 (LSB530)

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	586.7 Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location ☒ N ☒ E
4630961.3 Feet ☐ S 439271.45 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 53		1 2 3 4	0 - 4.6' **FILL, WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (2.5Y 5/1), crashed asphalt sand and gravel fill.	(GW)s									
2 CS	60 54		5 6 7	4.6 - 5' **SANDY LEAN CLAY :** s(CL), dark brown (7.5YR 3/2), trace gravel.	s(CL)									
				5 - 6.1' **WELL-GRADED GRAVEL WITH SAND :** (GW)s, gray (2.5Y 5/1), sand and gravel.	(GW)s									
3 CS	54 30		8 9 10 11 12 13	6.1 - 14.5' **SANDY LEAN CLAY :** s(CL), black (5Y 2.5/1), some cinders and trace gravel. 8' wet.	s(CL)									
				14.5' End of Boring-Refusal at 14.5'.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm Natural Resource Technology, Inc.
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NATURAL RESOURCE TECHNOLOGY

SOIL BORING LOG INFORMATION

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Crawford Station - Parcel L		MWL106 (LSB529)

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Shawn Keehma Cabeno Env. Field Services, LLC	6/12/2012	6/12/2012	GeoProbe

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
	Feet (NAVD)	589.3 Feet (NAVD)	2.3 inches

Local Grid Origin ☒ (estimated: ☒) or Boring Location ☐
State Plane N, E S/C/N
1/4 of 1/4 of Section , T N, R

Lat ___° ___' ___"
Long ___° ___' ___"

Local Grid Location
☒ N 4630993.29 Feet ☐ S ☒ E 439067.01 Feet ☐ W

Facility ID	County	State	Civil Town/City/ or Village
	Cook	IL	Chicago

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	60 48		1	0 - 2' **FILL, WELL-GRADED SAND WITH GRAVEL** : (GW)s, grayish brown (2.5Y 5/2), loose sand and gravel.	(GW)s									
			2	2 - 6' **FILL, LEAN CLAY** to **SILT** : CL, dark gray (10YR 4/1), coarse to fine sand.	CL			3.2						
			3											
			4											
			5											
2 CS	60 42		6	6 - 10' **FILL, WELL-GRADED SAND WITH GRAVEL** : (GW)s, sand and rubble present (bricks, wood, and cinders), loose. 8' wet.	(GW)s			1.7						
			7											
			8											
			9											
				10' End of Boring.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

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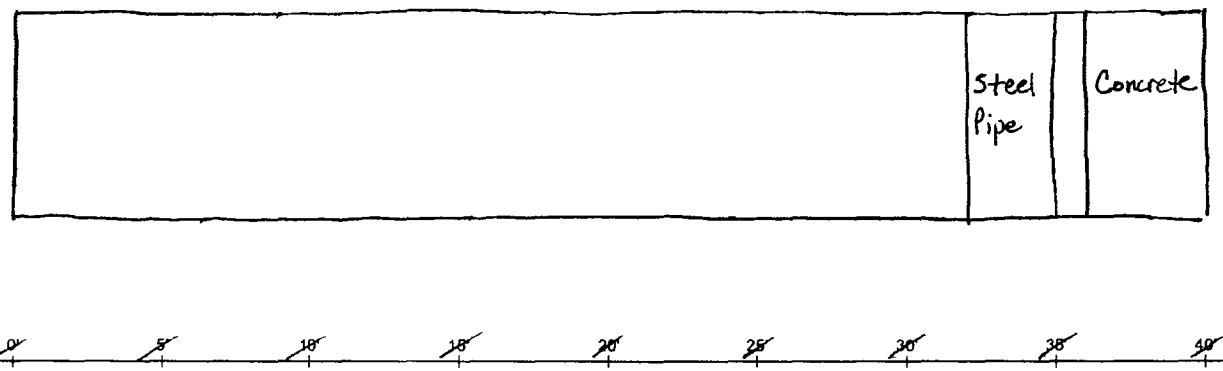
PROJECT NAME: Crawford Station MGP Site Parcel L	PROJECT NO.: 2037	LOGGER: CJM	COMMENTS: Far east side of Parcel L, parallel to fence line
LOCATION: Chicago, IL			
ELEVATION:	EXCAVATION METHOD: Backhoe	CONTRACTOR: Calcon	
APPROXIMATE DIMENSIONS: LENGTH:	WIDTH: 6-9'	DEPTH: 20'	

TEST PIT NO.: TP-1
SHEET 1 OF 1
DATE EXCAVATED: 6-5-12

SAMPLE: INTERVAL / TYPE & NUMBER

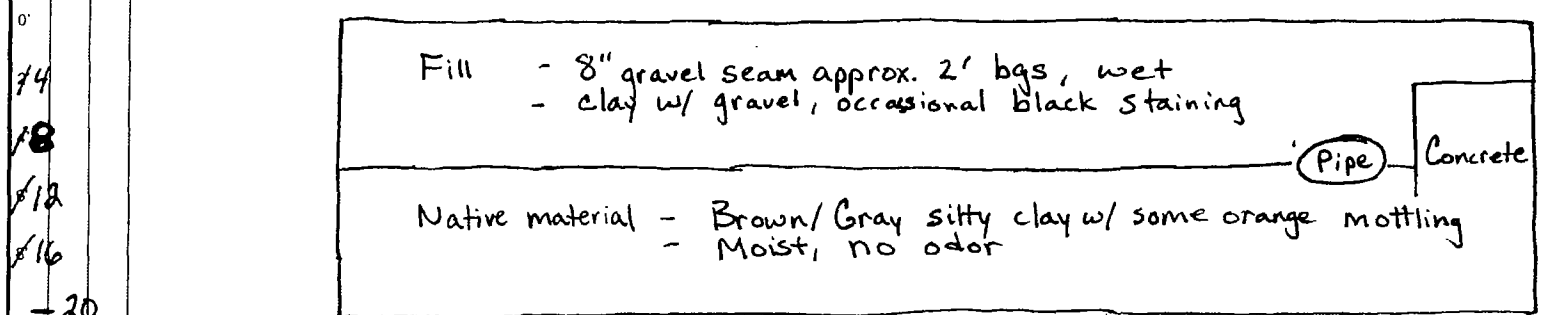
DEPTH BELOW SURFACE

PLAN VIEW



REMARKS/ WATER LEVEL

CROSS-SECTION



WATER TABLE

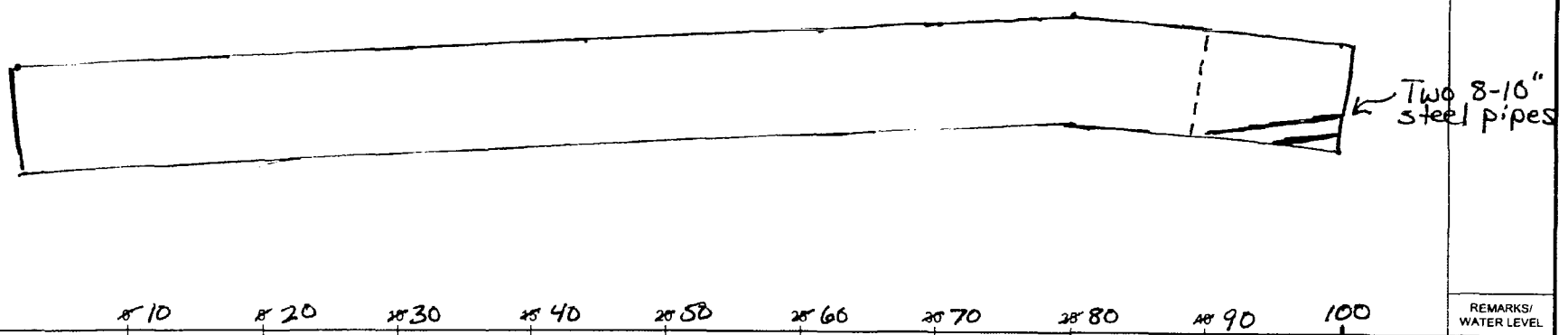
ADDITIONAL COMMENTS: Steel pipe — thought to be 36" as shown on figure - approx. 9' bgs
No elevated PID readings, occasional faint odor
Substantial cave-in ~~from~~ of east and west excavation walls occured during excavation

PROJECT NAME: Crawford Station MGP Site Parcel L	PROJECT NO.: 2037	LOGGER: CJM	COMMENTS: Eastern cross-section of "river"
LOCATION: Chicago, IL			TEST PIT NO.: SHEET 1 OF 1
ELEVATION:	EXCAVATION METHOD: Backhoe	CONTRACTOR:	DATE EXCAVATED: 6-5-12
APPROXIMATE DIMENSIONS: LENGTH: WIDTH: DEPTH:			

SAMPLE: INTERVAL | TYPE & NUMBER

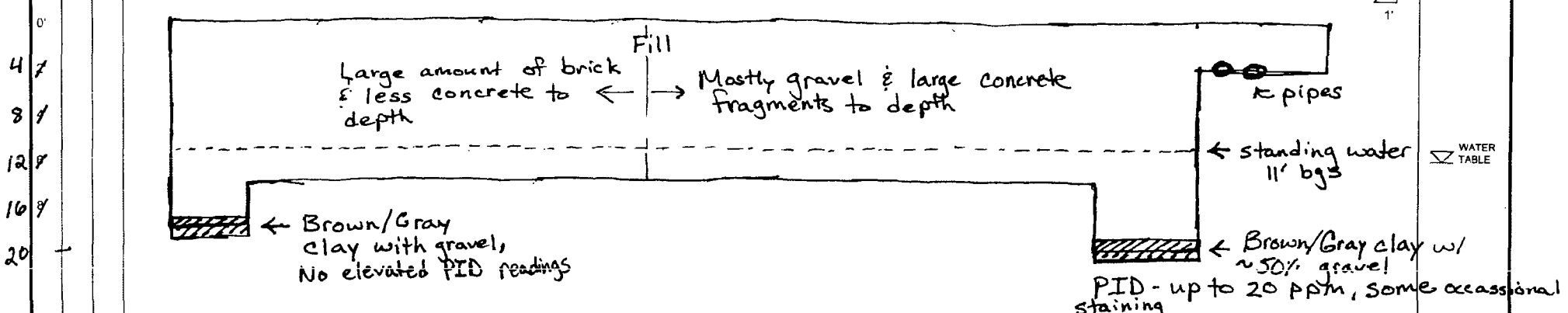
DEPTH BELOW SURFACE

PLAN VIEW



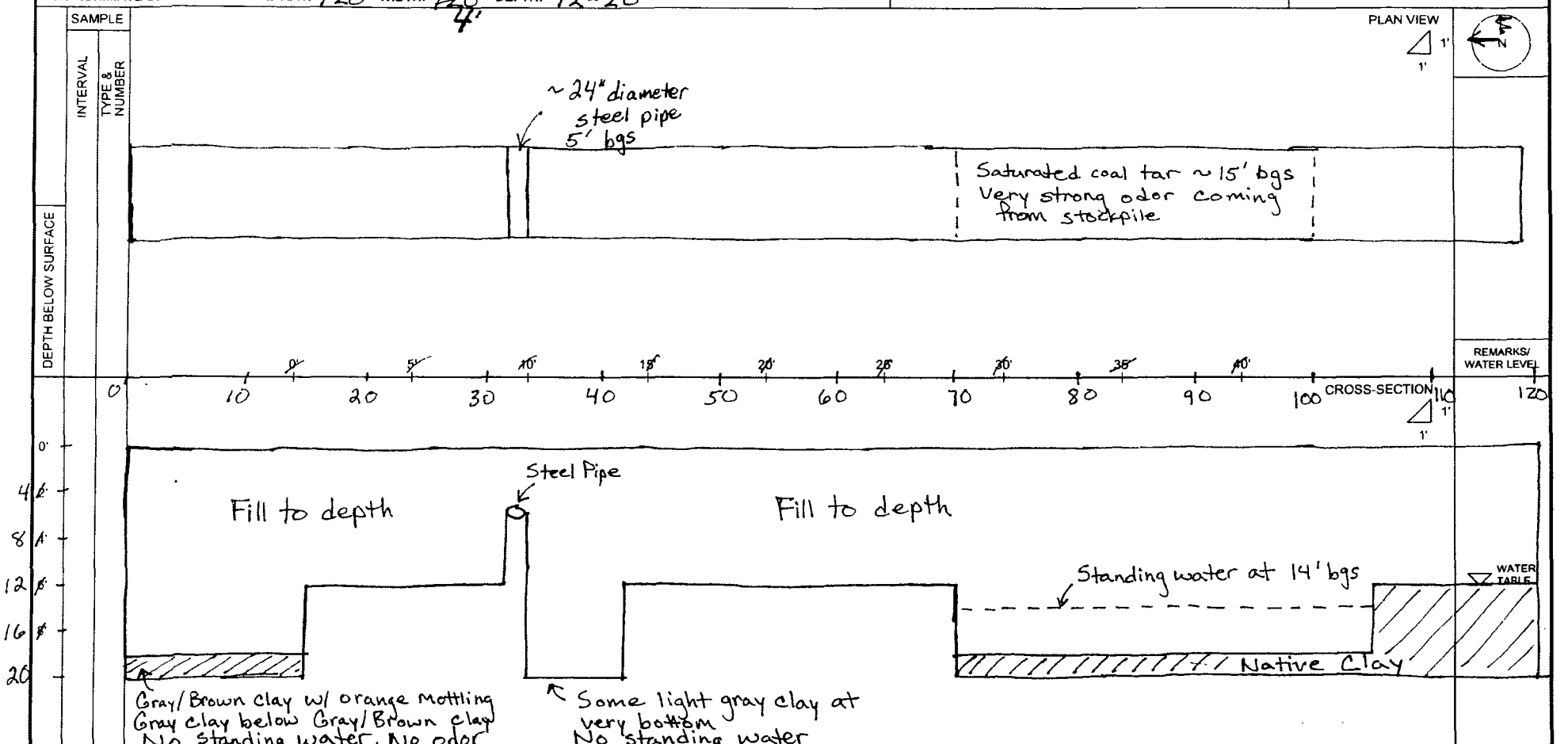
REMARKS/ WATER LEVEL

CROSS-SECTION



ADDITIONAL COMMENTS: Some cave-in (approx. 2-3 feet at each side) when excavating to 20'
Additional cave-in noted 6-6-12
Slight odor from excavation area at northern end

PROJECT NAME: Crawford Station MGP Site. Parcel L	PROJECT NO.: 2037	LOGGER: CJM	COMMENTS: Western cross section of "river"
LOCATION: Chicago, IL			TEST PIT NO.: TP-3 SHEET 1 OF 1
ELEVATION:	EXCAVATION METHOD: Backhoe	CONTRACTOR: Calcon	DATE EXCAVATED: 6-6-12
APPROXIMATE DIMENSIONS: LENGTH: 120' WIDTH: ~~120'~~ 4' DEPTH: 12-20'			



ADDITIONAL COMMENTS:
Removed several buckets of tar saturated sand and gravel ~ 70' into excavation
Fill material consisted of primarily gravel & brick at southern end of dig, ~~and clay g~~ with a higher proportion of clay at the northern end.
- No cave-ins

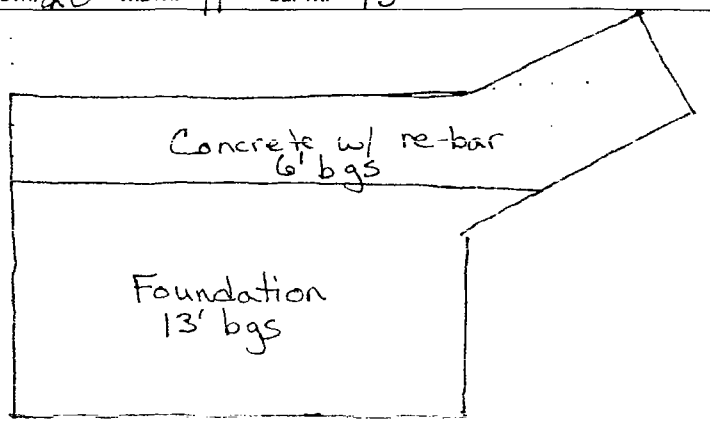
PROJECT NAME: Crawford Station MGP Site Parcel L	PROJECT NO.: 2037	LOGGER: CJM	COMMENTS: - Directly over Geoprobe boring 51N - Test pit extended later in the day - see sheet 2
LOCATION: Chicago, IL			
ELEVATION:	EXCAVATION METHOD: Backhoe	CONTRACTOR: Calcon	
APPROXIMATE DIMENSIONS: LENGTH: 20' WIDTH: 11' DEPTH: 13'			

TEST PIT NO.: TP-5
SHEET 1 OF 2
DATE EXCAVATED: 6-7-12

SAMPLE: INTERVAL | TYPE & NUMBER

DEPTH BELOW SURFACE

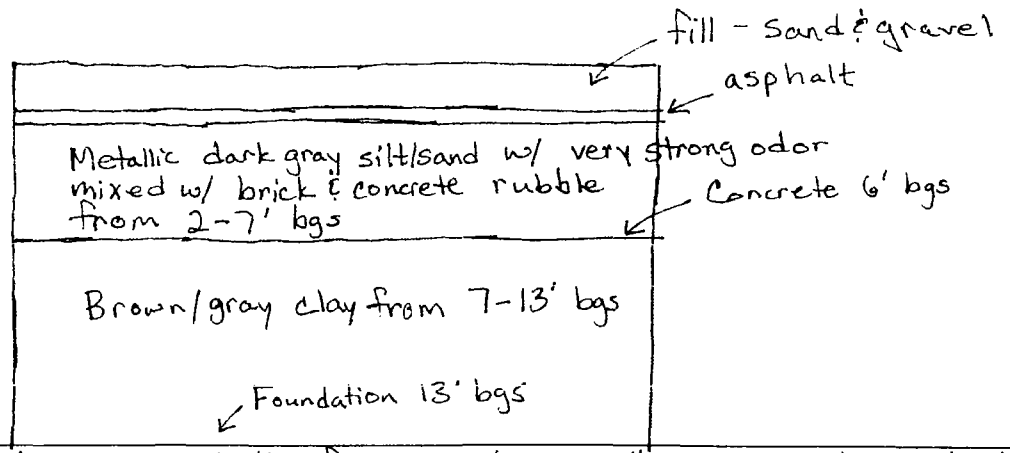
PLAN VIEW



0' 5' 10' 15' 20' 25' 30' 35' 40'

REMARKS/ WATER LEVEL

CROSS-SECTION



WATER TABLE

ADDITIONAL COMMENTS: Water & NAPL penetrating from western wall - accumulating at bottom to several inches
Source found later in day (see sheet 2)

PROJECT NAME: Crawford Station MGP Site Parcel L	PROJECT NO.: 2037	LOGGER: CJM	COMMENTS:
LOCATION: Chicago, IL			
ELEVATION:	EXCAVATION METHOD: Backhoe	CONTRACTOR: Calcon	
APPROXIMATE DIMENSIONS: LENGTH: 25' WIDTH: 15' DEPTH: 23'			

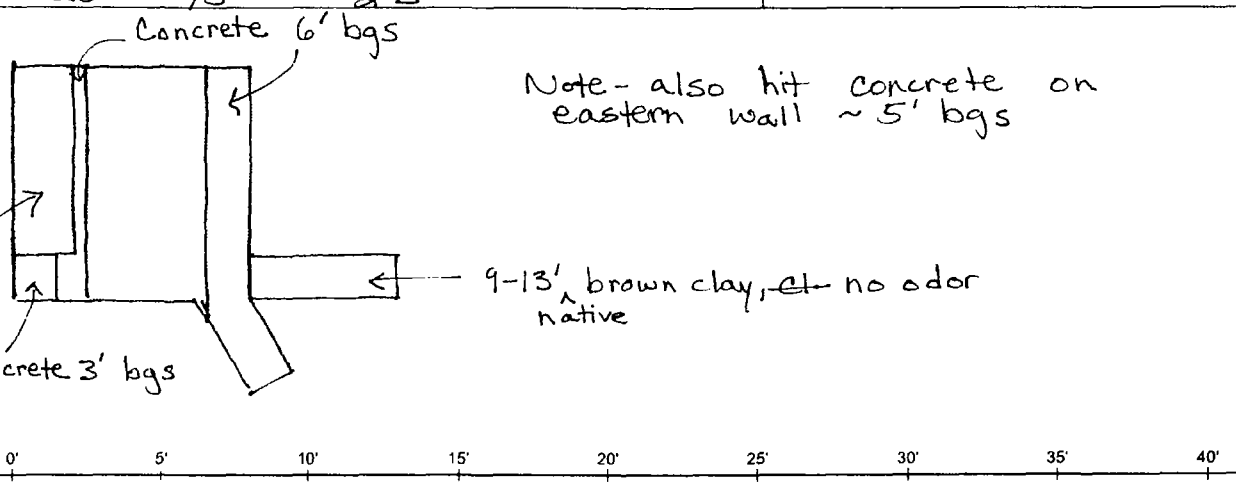
TEST PIT NO.: TP-5
SHEET 2 OF 2

DATE EXCAVATED: 6-7-12

SAMPLE: INTERVAL | TYPE & NUMBER

DEPTH BELOW SURFACE

PLAN VIEW



REMARKS/ WATER LEVEL

CROSS-SECTION

0'
2'
4'
6'
8'

0-8' Dense fill - clay, gravel, asphalt, "metallic sand" 4-8' bgs
8-17' gravel, oil coated, saturated ~~8-17~~ 10-17' bgs
17'-23' ~~D~~ Black silt becoming Brown/Gray at 23' bgs
} very strong odor

WATER TABLE

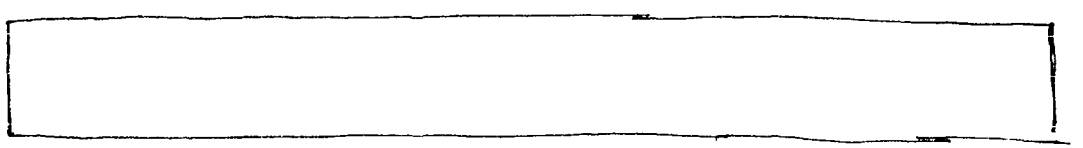
ADDITIONAL COMMENTS: NAPL/standing water at 10' bgs on northern side of wall in excavation
Standing water remained at 10' bgs through duration of excavation

PROJECT NAME: Crawford Station MGP Site Parcel L	PROJECT NO.: 2037	LOGGER: CJM	COMMENTS: North end near fence line
LOCATION: Chicago, IL			TEST PIT NO.: TP-4 SHEET 1 OF 1
ELEVATION:	EXCAVATION METHOD: Backhoe	CONTRACTOR: Calcon	DATE EXCAVATED: 6-7-12
APPROXIMATE DIMENSIONS: LENGTH: 35' WIDTH: 4' DEPTH: 9-10'			

SAMPLE: INTERVAL | TYPE & NUMBER

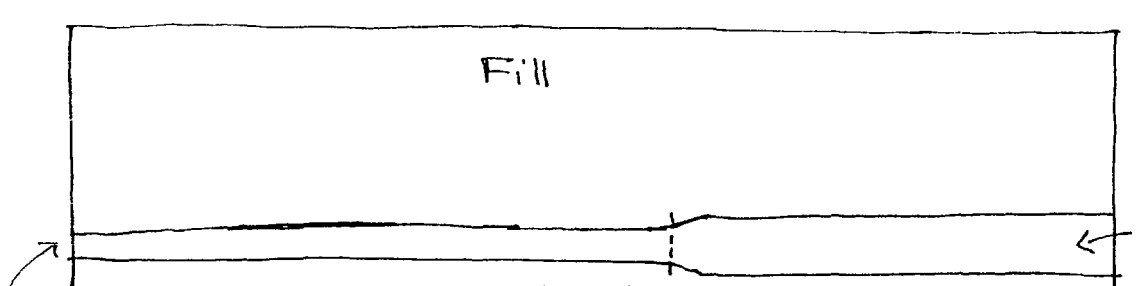
DEPTH BELOW SURFACE

PLAN VIEW



REMARKS/ WATER LEVEL

CROSS-SECTION



WATER TABLE

Seam becomes wider @ 20' in and includes brick & concrete fragments, light odor

1' seam of oily dark gray silty sand, moderate odor
PID readings up to 100+ ppm near most contaminated soils
10-20ppm 5' from pile

ADDITIONAL COMMENTS:
No water accumulation
No cave-in of excavation walls

APPENDIX B2

LABORATORY ANALYTICAL REPORTS

Parcel L Investigation Soil Sample Data — June 2012
Former Crawford Station MGP Site, Chicago, Illinois
Peoples Gas Light and Coke Company
ILN0000510192

Client ID	Location	Depth Range (ft bgs)	Sample Collection Date	Constituent/Result [miligram per kilogram (mg/kg)]										
				1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Ethylbenzene	m&p-Xylene	o-Xylene	Toluene	Xylenes, Total	Gasoline Range Organics (C6-C9)	Diesel Range Organics [C10-C28]	Total Petroleum Hydrocarbons†
120606101	SP-501	7-9	6/6/2012	0.24	0.091	0.22	0.18	0.14	0.12	0.062	0.26	8.1	2400	2408
120606102	SP-502	7-9	6/6/2012	0.26	0.14	0.11	0.23	0.17	0.17	0.081	0.34	11	1700	1711
120606103	SP-503	12-14	6/6/2012	6.5	1.1	0.6	20	3.6	5.7	<0.11	9.4	100	1200	1300
120606104	SP-504	7-9	6/6/2012	0.18	0.080 J	0.18	0.15	0.12	0.1	0.068	0.22	4.3	1600	1604
120606105	SP-505	7-9	6/6/2012	0.83	0.22 J	0.4	0.62	0.28	0.35	0.25	0.63	17	3600	3617
120606106	SP-506	7-9	6/6/2012	4.8	0.74	0.62	6	0.22	0.59	0.16	0.81	64	6000	6064
120606107	SP-507	12-14	6/6/2012	0.064 J	<0.21	<0.026	0.016 J	<0.053	<0.026	0.020 J	<0.053	2.1	7500	7502
120606108	SP-508	10-12	6/6/2012	<0.10	<0.10	<0.013	<0.013	<0.026	<0.013	0.010 J	<0.026	3.7	520	524
120606109	SP-509	7-9	6/6/2012	<1.6	<1.6	<0.20	<0.20	<0.41	0.15 J	0.14 J	0.15 J	7.8 J	1600	1608
120606110	SP-510	7-9	6/6/2012	0.063 J	<0.089	0.077	0.087	0.1	0.051	0.089	0.15	5.1	1600	1605
120606111	SP-511	8-10	6/6/2012	0.13 J	0.096 J	0.15	0.094	0.13	0.1	0.13	0.23	7	20000	20007
120606112	SP-512	13-15	6/6/2012	<0.20	<0.20	0.19	0.096	0.13	0.12	0.24	0.25	17	1300	1317
120607101	SP-513	6-8	6/7/2012	0.15	0.071 J	0.16	0.18	0.15	0.11	0.11	0.26	14	2200	2214
120607102	SP-514	13-15	6/7/2012	1.7	1.2	2.5	0.43	0.64	0.58	0.19	1.2	21	21000	21021
120607103	SP-514	13-15	6/7/2012	0.79	0.41 J	0.43	0.14	0.27	0.19	0.084	0.46	11	47000	47011
120607104	SP-515	10-12	6/7/2012	1.1	0.5	0.28	0.52	0.53	0.44	0.14	0.97	17	2700	2717
120607105	SP-516	15-17	6/7/2012	0.14	0.044 J	0.097	0.084	0.3	0.1	0.079	0.4	12	670	682
120607106	SP-517	7-9	6/7/2012	0.22	0.3	<0.019	0.084	0.28	0.19	0.14	0.47	25	500	525
120607107	SP-518	7-9	6/7/2012	0.28	0.13	0.44	0.31	0.49	0.2	0.49	0.68	28	130	158
120607108	SP-518	14-16	6/7/2012	<0.17	<0.17	1.3	0.53	0.048	0.069	0.013 J	0.12	27	560	587
120607109	SP-519	8-10	6/7/2012	0.33	<0.16	<0.020	<0.020	<0.039	<0.020	<0.020	<0.039	3.9	79	83
120607110	SP-520	7-9	6/7/2012	0.57	0.27	0.057	0.12	0.61	0.48	0.22	1.1	30	340	370
120607111	SP-521	8-10	6/7/2012	<0.085	<0.085	<0.011	<0.011	<0.021	<0.011	<0.011	<0.021	7.9	180	188
120607112	SP-522	7-9	6/7/2012	0.064 J	0.033 J	0.024	0.014	0.027	0.017	0.0085 J	0.043	0.81 J	1600	1600
120607113	SP-522	13-15	6/7/2012	<0.088	<0.088	<0.011	<0.011	<0.022	<0.011	<0.011	<0.022	<0.88	1800	1800
120608101	SP-527	15-17	6/7/2012	<0.0039	<0.0039	<0.0039	<0.0039	<0.0078	<0.0039	<0.0039	<0.0078	1	210	211
120608102	SP-528	15-17	6/7/2012	5.1	0.43 J	2.2	3	<0.22	0.39	<0.11	0.39	31	5200	5231
120608103	SP-528	21-23	6/7/2012	3.7	0.31 J	1.3	1.4	<0.093	0.12	<0.046	0.12	28	1900	1928
120608104	SP-528	26-28	6/7/2012	5.6	0.66 J	1.5	4.6	<0.23	0.69	<0.11	0.69	44	3300	3344

Notes:
1) ft bgs - feet below ground surface
2) † - Total Petroleum Hydrocarbons is the sum of Diesel Range Organics and Gasoline Range Organics. If either parameter was non-detect, half of the detection limit was used for the sum.
3) < - Analyte was not detected. The associated number is the detection limit
4) J - Result is an estimated value.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-47117-1
Client Project/Site: Crawford Station - Parcel L

For:
Natural Resource Technology, Inc.
300 S. Wacker Drive
Suite 2050
Chicago, Illinois 60606

Attn: Mr. Tim B Norris

Authorized for release by:
6/14/2012 3:48:14 PM

Jim Knapp
Customer Service Manager
jim.knapp@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: 500-47117-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-47117-1

Comments
No additional comments.

Receipt
The samples were received on 6/7/2012 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0° C.

GC/MS VOA
Method(s) 8260B: The following samples were diluted due to the abundance of target and/or non-target analytes: 120606101 (500-47117-1), 120606102 (500-47117-2), 120606103 (500-47117-3), 120606104 (500-47117-4), 120606105 (500-47117-5), 120606106 (500-47117-6), 120606107 (500-47117-7), 120606108 (500-47117-8), 120606109 (500-47117-9), 120606110 (500-47117-10), 120606111 (500-47117-11), 120606112 (500-47117-12). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC VOA
Method(s) 8015B: The following sample(s) was diluted due to the abundance of non-target analytes: 120606109 (500-47117-9). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8015B: Due to the level of dilution required for the following samples, surrogate recoveries are not reported: 120606101 (500-47117-1), 120606105 (500-47117-5), 120606106 (500-47117-6), 120606107 (500-47117-7), 120606111 (500-47117-11).

Method(s) 8015B: Surrogate recovery for the following samples were outside control limits: 120606102 (500-47117-2), 120606103 (500-47117-3), 120606104 (500-47117-4), 120606108 (500-47117-8), 120606109 (500-47117-9), 120606110 (500-47117-10), 120606112 (500-47117-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8015B: Matrix spikes for batch 152459 could not be recovered due to sample matrix interferences which required sample dilution. The associated laboratory control sample (LCS) met acceptance criteria. 120606101 (500-47117-1)

Method(s) 8015B: The continuing calibration verification (CCV) for analytical batch 152417 exceeded control criteria for O-Terphenyl. The data have been qualified and reported. 120606102 (500-47117-2), 120606103 (500-47117-3), 120606108 (500-47117-8), 120606109 (500-47117-9), 120606110 (500-47117-10), 120606112 (500-47117-12)

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606101 — Lab Sample ID: 500-47117-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.22		0.011	0.0032	mg/Kg	50	☼	8260B	Total/NA
Ethylbenzene	0.18		0.011	0.0054	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.062		0.011	0.0050	mg/Kg	50	☼	8260B	Total/NA
m&p-Xylene	0.14		0.022	0.0069	mg/Kg	50	☼	8260B	Total/NA
o-Xylene	0.12		0.011	0.0029	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	0.26		0.022	0.0029	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.24		0.086	0.0091	mg/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.091		0.086	0.0089	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	8.1		0.86	0.43	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	2400		490	89	mg/Kg	50	☼	8015B	Total/NA

Client Sample ID: 120606102 — Lab Sample ID: 500-47117-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.11		0.012	0.0037	mg/Kg	50	☼	8260B	Total/NA
Ethylbenzene	0.23		0.012	0.0063	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.081		0.012	0.0057	mg/Kg	50	☼	8260B	Total/NA
m&p-Xylene	0.17		0.025	0.0080	mg/Kg	50	☼	8260B	Total/NA
o-Xylene	0.17		0.012	0.0034	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	0.34		0.025	0.0034	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.26		0.10	0.011	mg/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.14		0.10	0.010	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	11		1.0	0.50	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	1700		100	18	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120606103 — Lab Sample ID: 500-47117-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.60		0.11	0.033	mg/Kg	500	☼	8260B	Total/NA
Ethylbenzene	20		0.11	0.057	mg/Kg	500	☼	8260B	Total/NA
m&p-Xylene	3.6		0.22	0.072	mg/Kg	500	☼	8260B	Total/NA
o-Xylene	5.7		0.11	0.031	mg/Kg	500	☼	8260B	Total/NA
Xylenes, Total	9.4		0.22	0.031	mg/Kg	500	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	6.5		0.90	0.095	mg/Kg	500	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	1.1		0.90	0.093	mg/Kg	500	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	100		9.0	4.5	mg/Kg	500	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	1200		99	18	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120606104 — Lab Sample ID: 500-47117-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.18		0.013	0.0038	mg/Kg	50	☼	8260B	Total/NA
Ethylbenzene	0.15		0.013	0.0065	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.068		0.013	0.0060	mg/Kg	50	☼	8260B	Total/NA
m&p-Xylene	0.12		0.026	0.0083	mg/Kg	50	☼	8260B	Total/NA
o-Xylene	0.10		0.013	0.0035	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	0.22		0.026	0.0035	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.18		0.10	0.011	mg/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.080	J	0.10	0.011	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	4.3		1.0	0.52	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	1600		97	18	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120606105 — Lab Sample ID: 500-47117-5

Client Sample ID: 120606105 (Continued) — Lab Sample ID: 500-47117-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.40		0.073	0.022	mg/Kg	250	☼	8260B	Total/NA
Ethylbenzene	0.62		0.073	0.037	mg/Kg	250	☼	8260B	Total/NA
Toluene	0.25		0.073	0.034	mg/Kg	250	☼	8260B	Total/NA
m&p-Xylene	0.28		0.15	0.047	mg/Kg	250	☼	8260B	Total/NA
o-Xylene	0.35		0.073	0.020	mg/Kg	250	☼	8260B	Total/NA
Xylenes, Total	0.63		0.15	0.020	mg/Kg	250	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.83		0.59	0.062	mg/Kg	250	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.22	J	0.59	0.061	mg/Kg	250	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	17		2.3	1.2	mg/Kg	100	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	3600		470	85	mg/Kg	50	☼	8015B	Total/NA

Client Sample ID: 120606106 — Lab Sample ID: 500-47117-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.62		0.059	0.017	mg/Kg	250	☼	8260B	Total/NA
Ethylbenzene	6.0		0.059	0.030	mg/Kg	250	☼	8260B	Total/NA
Toluene	0.16		0.059	0.027	mg/Kg	250	☼	8260B	Total/NA
m&p-Xylene	0.22		0.12	0.038	mg/Kg	250	☼	8260B	Total/NA
o-Xylene	0.59		0.059	0.016	mg/Kg	250	☼	8260B	Total/NA
Xylenes, Total	0.81		0.12	0.016	mg/Kg	250	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	4.8		0.47	0.050	mg/Kg	250	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.74		0.47	0.049	mg/Kg	250	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	64		4.7	2.4	mg/Kg	250	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	6000		930	170	mg/Kg	100	☼	8015B	Total/NA

Client Sample ID: 120606107 — Lab Sample ID: 500-47117-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.016	J	0.026	0.013	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.020	J	0.026	0.012	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.064	J	0.21	0.022	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	2.1		2.1	1.1	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	7500		850	150	mg/Kg	50	☼	8015B	Total/NA

Client Sample ID: 120606108 — Lab Sample ID: 500-47117-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.010	J	0.013	0.0059	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	3.7		1.0	0.51	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	520		91	16	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120606109 — Lab Sample ID: 500-47117-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.14	J	0.20	0.094	mg/Kg	1000	☼	8260B	Total/NA
o-Xylene	0.15	J	0.20	0.056	mg/Kg	1000	☼	8260B	Total/NA
Xylenes, Total	0.15	J	0.41	0.056	mg/Kg	1000	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	7.8	J	8.2	4.1	mg/Kg	500	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	1600		96	17	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120606110 — Lab Sample ID: 500-47117-10

Client Sample ID: 120606110 (Continued) — Lab Sample ID: 500-47117-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.077		0.011	0.0033	mg/Kg	50	☼	8260B	Total/NA
Ethylbenzene	0.087		0.011	0.0056	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.089		0.011	0.0051	mg/Kg	50	☼	8260B	Total/NA
m&p-Xylene	0.10		0.022	0.0071	mg/Kg	50	☼	8260B	Total/NA
o-Xylene	0.051		0.011	0.0030	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	0.15		0.022	0.0030	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.063	J	0.089	0.0093	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	5.1		3.5	1.8	mg/Kg	200	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	1600		93	17	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120606111 — Lab Sample ID: 500-47117-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.15		0.026	0.0078	mg/Kg	100	☼	8260B	Total/NA
Ethylbenzene	0.094		0.026	0.013	mg/Kg	100	☼	8260B	Total/NA
Toluene	0.13		0.026	0.012	mg/Kg	100	☼	8260B	Total/NA
m&p-Xylene	0.13		0.052	0.017	mg/Kg	100	☼	8260B	Total/NA
o-Xylene	0.10		0.026	0.0072	mg/Kg	100	☼	8260B	Total/NA
Xylenes, Total	0.23		0.052	0.0072	mg/Kg	100	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.13	J	0.21	0.022	mg/Kg	100	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.096	J	0.21	0.022	mg/Kg	100	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	7.0		1.0	0.52	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	20000		1900	330	mg/Kg	200	☼	8015B	Total/NA

Client Sample ID: 120606112 — Lab Sample ID: 500-47117-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.19		0.025	0.0073	mg/Kg	100	☼	8260B	Total/NA
Ethylbenzene	0.096		0.025	0.012	mg/Kg	100	☼	8260B	Total/NA
Toluene	0.24		0.025	0.011	mg/Kg	100	☼	8260B	Total/NA
m&p-Xylene	0.13		0.049	0.016	mg/Kg	100	☼	8260B	Total/NA
o-Xylene	0.12		0.025	0.0068	mg/Kg	100	☼	8260B	Total/NA
Xylenes, Total	0.25		0.049	0.0068	mg/Kg	100	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	17		2.0	0.99	mg/Kg	100	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	1300		100	18	mg/Kg	10	☼	8015B	Total/NA

Method Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8015B	Gasoline Range Organics - (GC)	SW846	TAL CHI
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

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 CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-47117-1	120606101	Solid	06/06/12 09:30	06/07/12 15:30
500-47117-2	120606102	Solid	06/06/12 10:00	06/07/12 15:30
500-47117-3	120606103	Solid	06/06/12 10:30	06/07/12 15:30
500-47117-4	120606104	Solid	06/06/12 11:05	06/07/12 15:30
500-47117-5	120606105	Solid	06/06/12 11:30	06/07/12 15:30
500-47117-6	120606106	Solid	06/06/12 12:15	06/07/12 15:30
500-47117-7	120606107	Solid	06/06/12 12:45	06/07/12 15:30
500-47117-8	120606108	Solid	06/06/12 13:15	06/07/12 15:30
500-47117-9	120606109	Solid	06/06/12 14:15	06/07/12 15:30
500-47117-10	120606110	Solid	06/06/12 14:40	06/07/12 15:30
500-47117-11	120606111	Solid	06/06/12 15:10	06/07/12 15:30
500-47117-12	120606112	Solid	06/06/12 15:40	06/07/12 15:30

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606101
Date Collected: 06/06/12 09:30
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-1
Matrix: Solid
Percent Solids: 82.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.22		0.011	0.0032	mg/Kg	☼	06/06/12 09:30	06/12/12 05:26	50
Ethylbenzene	0.18		0.011	0.0054	mg/Kg	☼	06/06/12 09:30	06/12/12 05:26	50
Toluene	0.062		0.011	0.0050	mg/Kg	☼	06/06/12 09:30	06/12/12 05:26	50
m&p-Xylene	0.14		0.022	0.0069	mg/Kg	☼	06/06/12 09:30	06/12/12 05:26	50
o-Xylene	0.12		0.011	0.0029	mg/Kg	☼	06/06/12 09:30	06/12/12 05:26	50
Xylenes, Total	0.26		0.022	0.0029	mg/Kg	☼	06/06/12 09:30	06/12/12 05:26	50
1,2,4-Trimethylbenzene	0.24		0.086	0.0091	mg/Kg	☼	06/06/12 09:30	06/12/12 05:26	50
1,3,5-Trimethylbenzene	0.091		0.086	0.0089	mg/Kg	☼	06/06/12 09:30	06/12/12 05:26	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*124*		*75 - 131*	*06/06/12 09:30*	*06/12/12 05:26*	*50*
Toluene-d8 (Surr)	*98*		*80 - 120*	*06/06/12 09:30*	*06/12/12 05:26*	*50*
4-Bromofluorobenzene (Surr)	*101*		*79 - 120*	*06/06/12 09:30*	*06/12/12 05:26*	*50*
Dibromofluoromethane	*107*		*74 - 123*	*06/06/12 09:30*	*06/12/12 05:26*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	8.1		0.86	0.43	mg/Kg	☼	06/06/12 09:30	06/10/12 12:48	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*70 - 130*	*06/06/12 09:30*	*06/10/12 12:48*	*50*
a,a,a-Trifluorotoluene	*102*		*70 - 130*	*06/06/12 09:30*	*06/10/12 12:48*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2400		490	89	mg/Kg	☼	06/11/12 18:07	06/13/12 21:37	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/11/12 18:07*	*06/13/12 21:37*	*50*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/11/12 18:07*	*06/13/12 21:37*	*50*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606102
Date Collected: 06/06/12 10:00
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-2
Matrix: Solid
Percent Solids: 82.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.11		0.012	0.0037	mg/Kg	☼	06/06/12 10:00	06/12/12 05:49	50
Ethylbenzene	0.23		0.012	0.0063	mg/Kg	☼	06/06/12 10:00	06/12/12 05:49	50
Toluene	0.081		0.012	0.0057	mg/Kg	☼	06/06/12 10:00	06/12/12 05:49	50
m&p-Xylene	0.17		0.025	0.0080	mg/Kg	☼	06/06/12 10:00	06/12/12 05:49	50
o-Xylene	0.17		0.012	0.0034	mg/Kg	☼	06/06/12 10:00	06/12/12 05:49	50
Xylenes, Total	0.34		0.025	0.0034	mg/Kg	☼	06/06/12 10:00	06/12/12 05:49	50
1,2,4-Trimethylbenzene	0.26		0.10	0.011	mg/Kg	☼	06/06/12 10:00	06/12/12 05:49	50
1,3,5-Trimethylbenzene	0.14		0.10	0.010	mg/Kg	☼	06/06/12 10:00	06/12/12 05:49	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 131*	*06/06/12 10:00*	*06/12/12 05:49*	*50*
Toluene-d8 (Surr)	*101*		*80 - 120*	*06/06/12 10:00*	*06/12/12 05:49*	*50*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*	*06/06/12 10:00*	*06/12/12 05:49*	*50*
Dibromofluoromethane	*104*		*74 - 123*	*06/06/12 10:00*	*06/12/12 05:49*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	11		1.0	0.50	mg/Kg	☼	06/06/12 10:00	06/10/12 14:38	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*70 - 130*	*06/06/12 10:00*	*06/10/12 14:38*	*50*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*06/06/12 10:00*	*06/10/12 14:38*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1700		100	18	mg/Kg	☼	06/08/12 18:25	06/11/12 17:18	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*32 - 110*	*06/08/12 18:25*	*06/11/12 17:18*	*10*
o-Terphenyl	*447*	*X*	*42 - 112*	*06/08/12 18:25*	*06/11/12 17:18*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606103
Date Collected: 06/06/12 10:30
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-3
Matrix: Solid
Percent Solids: 81.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.60		0.11	0.033	mg/Kg	☼	06/06/12 10:30	06/12/12 06:13	500
Ethylbenzene	20		0.11	0.057	mg/Kg	☼	06/06/12 10:30	06/12/12 06:13	500
Toluene	<0.11		0.11	0.052	mg/Kg	☼	06/06/12 10:30	06/12/12 06:13	500
m&p-Xylene	3.6		0.22	0.072	mg/Kg	☼	06/06/12 10:30	06/12/12 06:13	500
o-Xylene	5.7		0.11	0.031	mg/Kg	☼	06/06/12 10:30	06/12/12 06:13	500
Xylenes, Total	9.4		0.22	0.031	mg/Kg	☼	06/06/12 10:30	06/12/12 06:13	500
1,2,4-Trimethylbenzene	6.5		0.90	0.095	mg/Kg	☼	06/06/12 10:30	06/12/12 06:13	500
1,3,5-Trimethylbenzene	1.1		0.90	0.093	mg/Kg	☼	06/06/12 10:30	06/12/12 06:13	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*75 - 131*	*06/06/12 10:30*	*06/12/12 06:13*	*500*
Toluene-d8 (Surr)	*100*		*80 - 120*	*06/06/12 10:30*	*06/12/12 06:13*	*500*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*	*06/06/12 10:30*	*06/12/12 06:13*	*500*
Dibromofluoromethane	*104*		*74 - 123*	*06/06/12 10:30*	*06/12/12 06:13*	*500*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	100		9.0	4.5	mg/Kg	☼	06/06/12 10:30	06/10/12 15:14	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*70 - 130*	*06/06/12 10:30*	*06/10/12 15:14*	*500*
a,a,a-Trifluorotoluene	*104*		*70 - 130*	*06/06/12 10:30*	*06/10/12 15:14*	*500*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1200		99	18	mg/Kg	☼	06/08/12 18:25	06/11/12 17:53	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*32 - 110*	*06/08/12 18:25*	*06/11/12 17:53*	*10*
o-Terphenyl	*363*	*X*	*42 - 112*	*06/08/12 18:25*	*06/11/12 17:53*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606104
Date Collected: 06/06/12 11:05
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-4
Matrix: Solid
Percent Solids: 83.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.18		0.013	0.0038	mg/Kg	☼	06/06/12 11:05	06/12/12 06:37	50
Ethylbenzene	0.15		0.013	0.0065	mg/Kg	☼	06/06/12 11:05	06/12/12 06:37	50
Toluene	0.068		0.013	0.0060	mg/Kg	☼	06/06/12 11:05	06/12/12 06:37	50
m&p-Xylene	0.12		0.026	0.0083	mg/Kg	☼	06/06/12 11:05	06/12/12 06:37	50
o-Xylene	0.10		0.013	0.0035	mg/Kg	☼	06/06/12 11:05	06/12/12 06:37	50
Xylenes, Total	0.22		0.026	0.0035	mg/Kg	☼	06/06/12 11:05	06/12/12 06:37	50
1,2,4-Trimethylbenzene	0.18		0.10	0.011	mg/Kg	☼	06/06/12 11:05	06/12/12 06:37	50
1,3,5-Trimethylbenzene	0.080	J	0.10	0.011	mg/Kg	☼	06/06/12 11:05	06/12/12 06:37	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 131*	*06/06/12 11:05*	*06/12/12 06:37*	*50*
Toluene-d8 (Surr)	*95*		*80 - 120*	*06/06/12 11:05*	*06/12/12 06:37*	*50*
4-Bromofluorobenzene (Surr)	*105*		*79 - 120*	*06/06/12 11:05*	*06/12/12 06:37*	*50*
Dibromofluoromethane	*105*		*74 - 123*	*06/06/12 11:05*	*06/12/12 06:37*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	4.3		1.0	0.52	mg/Kg	☼	06/06/12 11:05	06/10/12 15:51	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*70 - 130*	*06/06/12 11:05*	*06/10/12 15:51*	*50*
a,a,a-Trifluorotoluene	*101*		*70 - 130*	*06/06/12 11:05*	*06/10/12 15:51*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1600		97	18	mg/Kg	☼	06/08/12 18:25	06/14/12 10:03	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*32 - 110*	*06/08/12 18:25*	*06/14/12 10:03*	*10*
o-Terphenyl	*151*	*X*	*42 - 112*	*06/08/12 18:25*	*06/14/12 10:03*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606105
Date Collected: 06/06/12 11:30
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-5
Matrix: Solid
Percent Solids: 86.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.40		0.073	0.022	mg/Kg	☼	06/06/12 11:30	06/12/12 07:01	250
Ethylbenzene	0.62		0.073	0.037	mg/Kg	☼	06/06/12 11:30	06/12/12 07:01	250
Toluene	0.25		0.073	0.034	mg/Kg	☼	06/06/12 11:30	06/12/12 07:01	250
m&p-Xylene	0.28		0.15	0.047	mg/Kg	☼	06/06/12 11:30	06/12/12 07:01	250
o-Xylene	0.35		0.073	0.020	mg/Kg	☼	06/06/12 11:30	06/12/12 07:01	250
Xylenes, Total	0.63		0.15	0.020	mg/Kg	☼	06/06/12 11:30	06/12/12 07:01	250
1,2,4-Trimethylbenzene	0.83		0.59	0.062	mg/Kg	☼	06/06/12 11:30	06/12/12 07:01	250
1,3,5-Trimethylbenzene	0.22	J	0.59	0.061	mg/Kg	☼	06/06/12 11:30	06/12/12 07:01	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*75 - 131*	*06/06/12 11:30*	*06/12/12 07:01*	*250*
Toluene-d8 (Surr)	*93*		*80 - 120*	*06/06/12 11:30*	*06/12/12 07:01*	*250*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*	*06/06/12 11:30*	*06/12/12 07:01*	*250*
Dibromofluoromethane	*104*		*74 - 123*	*06/06/12 11:30*	*06/12/12 07:01*	*250*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	17		2.3	1.2	mg/Kg	☼	06/06/12 11:30	06/10/12 16:27	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*70 - 130*	*06/06/12 11:30*	*06/10/12 16:27*	*100*
a,a,a-Trifluorotoluene	*101*		*70 - 130*	*06/06/12 11:30*	*06/10/12 16:27*	*100*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	3600		470	85	mg/Kg	☼	06/08/12 18:25	06/14/12 10:39	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/08/12 18:25*	*06/14/12 10:39*	*50*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/08/12 18:25*	*06/14/12 10:39*	*50*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606106
Date Collected: 06/06/12 12:15
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-6
Matrix: Solid
Percent Solids: 86.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.62		0.059	0.017	mg/Kg	☼	06/06/12 12:15	06/12/12 07:25	250
Ethylbenzene	6.0		0.059	0.030	mg/Kg	☼	06/06/12 12:15	06/12/12 07:25	250
Toluene	0.16		0.059	0.027	mg/Kg	☼	06/06/12 12:15	06/12/12 07:25	250
m&p-Xylene	0.22		0.12	0.038	mg/Kg	☼	06/06/12 12:15	06/12/12 07:25	250
o-Xylene	0.59		0.059	0.016	mg/Kg	☼	06/06/12 12:15	06/12/12 07:25	250
Xylenes, Total	0.81		0.12	0.016	mg/Kg	☼	06/06/12 12:15	06/12/12 07:25	250
1,2,4-Trimethylbenzene	4.8		0.47	0.050	mg/Kg	☼	06/06/12 12:15	06/12/12 07:25	250
1,3,5-Trimethylbenzene	0.74		0.47	0.049	mg/Kg	☼	06/06/12 12:15	06/12/12 07:25	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 131*	*06/06/12 12:15*	*06/12/12 07:25*	*250*
Toluene-d8 (Surr)	*98*		*80 - 120*	*06/06/12 12:15*	*06/12/12 07:25*	*250*
4-Bromofluorobenzene (Surr)	*101*		*79 - 120*	*06/06/12 12:15*	*06/12/12 07:25*	*250*
Dibromofluoromethane	*106*		*74 - 123*	*06/06/12 12:15*	*06/12/12 07:25*	*250*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	64		4.7	2.4	mg/Kg	☼	06/06/12 12:15	06/10/12 17:04	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*70 - 130*	*06/06/12 12:15*	*06/10/12 17:04*	*250*
a,a,a-Trifluorotoluene	*97*		*70 - 130*	*06/06/12 12:15*	*06/10/12 17:04*	*250*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	6000		930	170	mg/Kg	☼	06/08/12 18:25	06/14/12 11:14	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/08/12 18:25*	*06/14/12 11:14*	*100*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/08/12 18:25*	*06/14/12 11:14*	*100*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606107
Date Collected: 06/06/12 12:45
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-7
Matrix: Solid
Percent Solids: 47.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.026		0.026	0.0078	mg/Kg	☼	06/06/12 12:45	06/12/12 07:49	50
Ethylbenzene	**0.016**	**J**	0.026	0.013	mg/Kg	☼	06/06/12 12:45	06/12/12 07:49	50
Toluene	**0.020**	**J**	0.026	0.012	mg/Kg	☼	06/06/12 12:45	06/12/12 07:49	50
m&p-Xylene	<0.053		0.053	0.017	mg/Kg	☼	06/06/12 12:45	06/12/12 07:49	50
o-Xylene	<0.026		0.026	0.0072	mg/Kg	☼	06/06/12 12:45	06/12/12 07:49	50
Xylenes, Total	<0.053		0.053	0.0072	mg/Kg	☼	06/06/12 12:45	06/12/12 07:49	50
1,2,4-Trimethylbenzene	**0.064**	**J**	0.21	0.022	mg/Kg	☼	06/06/12 12:45	06/12/12 07:49	50
1,3,5-Trimethylbenzene	<0.21		0.21	0.022	mg/Kg	☼	06/06/12 12:45	06/12/12 07:49	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*75 - 131*	*06/06/12 12:45*	*06/12/12 07:49*	*50*
Toluene-d8 (Surr)	*101*		*80 - 120*	*06/06/12 12:45*	*06/12/12 07:49*	*50*
4-Bromofluorobenzene (Surr)	*95*		*79 - 120*	*06/06/12 12:45*	*06/12/12 07:49*	*50*
Dibromofluoromethane	*99*		*74 - 123*	*06/06/12 12:45*	*06/12/12 07:49*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	**2.1**		2.1	1.1	mg/Kg	☼	06/06/12 12:45	06/10/12 18:17	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 130*	*06/06/12 12:45*	*06/10/12 18:17*	*50*
a,a,a-Trifluorotoluene	*100*		*70 - 130*	*06/06/12 12:45*	*06/10/12 18:17*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**7500**		850	150	mg/Kg	☼	06/08/12 18:25	06/14/12 11:49	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/08/12 18:25*	*06/14/12 11:49*	*50*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/08/12 18:25*	*06/14/12 11:49*	*50*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606108
Date Collected: 06/06/12 13:15
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-8
Matrix: Solid
Percent Solids: 88.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.013		0.013	0.0038	mg/Kg	☼	06/06/12 13:15	06/12/12 08:13	50
Ethylbenzene	<0.013		0.013	0.0064	mg/Kg	☼	06/06/12 13:15	06/12/12 08:13	50
Toluene	**0.010**	**J**	0.013	0.0059	mg/Kg	☼	06/06/12 13:15	06/12/12 08:13	50
m&p-Xylene	<0.026		0.026	0.0082	mg/Kg	☼	06/06/12 13:15	06/12/12 08:13	50
o-Xylene	<0.013		0.013	0.0035	mg/Kg	☼	06/06/12 13:15	06/12/12 08:13	50
Xylenes, Total	<0.026		0.026	0.0035	mg/Kg	☼	06/06/12 13:15	06/12/12 08:13	50
1,2,4-Trimethylbenzene	<0.10		0.10	0.011	mg/Kg	☼	06/06/12 13:15	06/12/12 08:13	50
1,3,5-Trimethylbenzene	<0.10		0.10	0.011	mg/Kg	☼	06/06/12 13:15	06/12/12 08:13	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 131*	*06/06/12 13:15*	*06/12/12 08:13*	*50*
Toluene-d8 (Surr)	*96*		*80 - 120*	*06/06/12 13:15*	*06/12/12 08:13*	*50*
4-Bromofluorobenzene (Surr)	*104*		*79 - 120*	*06/06/12 13:15*	*06/12/12 08:13*	*50*
Dibromofluoromethane	*105*		*74 - 123*	*06/06/12 13:15*	*06/12/12 08:13*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	**3.7**		1.0	0.51	mg/Kg	☼	06/06/12 13:15	06/10/12 18:53	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 130*	*06/06/12 13:15*	*06/10/12 18:53*	*50*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*06/06/12 13:15*	*06/10/12 18:53*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**520**		91	16	mg/Kg	☼	06/08/12 18:25	06/11/12 20:48	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*32 - 110*	*06/08/12 18:25*	*06/11/12 20:48*	*10*
o-Terphenyl	*130*	*X*	*42 - 112*	*06/08/12 18:25*	*06/11/12 20:48*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606109
Date Collected: 06/06/12 14:15
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-9
Matrix: Solid
Percent Solids: 83.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.20		0.20	0.061	mg/Kg	☼	06/06/12 14:15	06/12/12 11:13	1000
Ethylbenzene	<0.20		0.20	0.10	mg/Kg	☼	06/06/12 14:15	06/12/12 11:13	1000
Toluene	**0.14**	**J**	0.20	0.094	mg/Kg	☼	06/06/12 14:15	06/12/12 11:13	1000
m&p-Xylene	<0.41		0.41	0.13	mg/Kg	☼	06/06/12 14:15	06/12/12 11:13	1000
o-Xylene	**0.15**	**J**	0.20	0.056	mg/Kg	☼	06/06/12 14:15	06/12/12 11:13	1000
Xylenes, Total	**0.15**	**J**	0.41	0.056	mg/Kg	☼	06/06/12 14:15	06/12/12 11:13	1000
1,2,4-Trimethylbenzene	<1.6		1.6	0.17	mg/Kg	☼	06/06/12 14:15	06/12/12 11:13	1000
1,3,5-Trimethylbenzene	<1.6		1.6	0.17	mg/Kg	☼	06/06/12 14:15	06/12/12 11:13	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*75 - 131*	*06/06/12 14:15*	*06/12/12 11:13*	*1000*
Toluene-d8 (Surr)	*104*		*80 - 120*	*06/06/12 14:15*	*06/12/12 11:13*	*1000*
4-Bromofluorobenzene (Surr)	*97*		*79 - 120*	*06/06/12 14:15*	*06/12/12 11:13*	*1000*
Dibromofluoromethane	*93*		*74 - 123*	*06/06/12 14:15*	*06/12/12 11:13*	*1000*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	**7.8**	**J**	8.2	4.1	mg/Kg	☼	06/06/12 14:15	06/10/12 19:30	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 130*	*06/06/12 14:15*	*06/10/12 19:30*	*500*
a,a,a-Trifluorotoluene	*101*		*70 - 130*	*06/06/12 14:15*	*06/10/12 19:30*	*500*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**1600**		96	17	mg/Kg	☼	06/08/12 18:25	06/11/12 21:23	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*32 - 110*	*06/08/12 18:25*	*06/11/12 21:23*	*10*
o-Terphenyl	*124*	*X*	*42 - 112*	*06/08/12 18:25*	*06/11/12 21:23*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606110
Date Collected: 06/06/12 14:40
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-10
Matrix: Solid
Percent Solids: 84.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.077		0.011	0.0033	mg/Kg	☼	06/06/12 14:40	06/13/12 09:39	50
Ethylbenzene	0.087		0.011	0.0056	mg/Kg	☼	06/06/12 14:40	06/13/12 09:39	50
Toluene	0.089		0.011	0.0051	mg/Kg	☼	06/06/12 14:40	06/13/12 09:39	50
m&p-Xylene	0.10		0.022	0.0071	mg/Kg	☼	06/06/12 14:40	06/13/12 09:39	50
o-Xylene	0.051		0.011	0.0030	mg/Kg	☼	06/06/12 14:40	06/13/12 09:39	50
Xylenes, Total	0.15		0.022	0.0030	mg/Kg	☼	06/06/12 14:40	06/13/12 09:39	50
1,2,4-Trimethylbenzene	0.063	J	0.089	0.0093	mg/Kg	☼	06/06/12 14:40	06/13/12 09:39	50
1,3,5-Trimethylbenzene	<0.089		0.089	0.0091	mg/Kg	☼	06/06/12 14:40	06/13/12 09:39	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*75 - 131*	*06/06/12 14:40*	*06/13/12 09:39*	*50*
Toluene-d8 (Surr)	*96*		*80 - 120*	*06/06/12 14:40*	*06/13/12 09:39*	*50*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*	*06/06/12 14:40*	*06/13/12 09:39*	*50*
Dibromofluoromethane	*89*		*74 - 123*	*06/06/12 14:40*	*06/13/12 09:39*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	5.1		3.5	1.8	mg/Kg	☼	06/06/12 14:40	06/10/12 20:06	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 130*	*06/06/12 14:40*	*06/10/12 20:06*	*200*
a,a,a-Trifluorotoluene	*98*		*70 - 130*	*06/06/12 14:40*	*06/10/12 20:06*	*200*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1600		93	17	mg/Kg	☼	06/08/12 18:25	06/11/12 23:44	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*32 - 110*	*06/08/12 18:25*	*06/11/12 23:44*	*10*
o-Terphenyl	*268*	*X*	*42 - 112*	*06/08/12 18:25*	*06/11/12 23:44*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606111

Date Collected: 06/06/12 15:10
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-11
Matrix: Solid
Percent Solids: 88.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.15		0.026	0.0078	mg/Kg	☼	06/06/12 15:10	06/12/12 12:01	100
Ethylbenzene	0.094		0.026	0.013	mg/Kg	☼	06/06/12 15:10	06/12/12 12:01	100
Toluene	0.13		0.026	0.012	mg/Kg	☼	06/06/12 15:10	06/12/12 12:01	100
m&p-Xylene	0.13		0.052	0.017	mg/Kg	☼	06/06/12 15:10	06/12/12 12:01	100
o-Xylene	0.10		0.026	0.0072	mg/Kg	☼	06/06/12 15:10	06/12/12 12:01	100
Xylenes, Total	0.23		0.052	0.0072	mg/Kg	☼	06/06/12 15:10	06/12/12 12:01	100
1,2,4-Trimethylbenzene	0.13	J	0.21	0.022	mg/Kg	☼	06/06/12 15:10	06/12/12 12:01	100
1,3,5-Trimethylbenzene	0.096	J	0.21	0.022	mg/Kg	☼	06/06/12 15:10	06/12/12 12:01	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*75 - 131*	*06/06/12 15:10*	*06/12/12 12:01*	*100*
Toluene-d8 (Surr)	*98*		*80 - 120*	*06/06/12 15:10*	*06/12/12 12:01*	*100*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*	*06/06/12 15:10*	*06/12/12 12:01*	*100*
Dibromofluoromethane	*96*		*74 - 123*	*06/06/12 15:10*	*06/12/12 12:01*	*100*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	7.0		1.0	0.52	mg/Kg	☼	06/06/12 15:10	06/10/12 20:43	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*	*06/06/12 15:10*	*06/10/12 20:43*	*50*
a,a,a-Trifluorotoluene	*97*		*70 - 130*	*06/06/12 15:10*	*06/10/12 20:43*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	20000		1900	330	mg/Kg	☼	06/08/12 18:25	06/14/12 13:34	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/08/12 18:25*	*06/14/12 13:34*	*200*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/08/12 18:25*	*06/14/12 13:34*	*200*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606112
Date Collected: 06/06/12 15:40
Date Received: 06/07/12 15:30

Lab Sample ID: 500-47117-12
Matrix: Solid
Percent Solids: 78.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.19		0.025	0.0073	mg/Kg	☼	06/06/12 15:40	06/12/12 12:26	100
Ethylbenzene	0.096		0.025	0.012	mg/Kg	☼	06/06/12 15:40	06/12/12 12:26	100
Toluene	0.24		0.025	0.011	mg/Kg	☼	06/06/12 15:40	06/12/12 12:26	100
m&p-Xylene	0.13		0.049	0.016	mg/Kg	☼	06/06/12 15:40	06/12/12 12:26	100
o-Xylene	0.12		0.025	0.0068	mg/Kg	☼	06/06/12 15:40	06/12/12 12:26	100
Xylenes, Total	0.25		0.049	0.0068	mg/Kg	☼	06/06/12 15:40	06/12/12 12:26	100
1,2,4-Trimethylbenzene	<0.20		0.20	0.021	mg/Kg	☼	06/06/12 15:40	06/12/12 12:26	100
1,3,5-Trimethylbenzene	<0.20		0.20	0.020	mg/Kg	☼	06/06/12 15:40	06/12/12 12:26	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 131*	*06/06/12 15:40*	*06/12/12 12:26*	*100*
Toluene-d8 (Surr)	*99*		*80 - 120*	*06/06/12 15:40*	*06/12/12 12:26*	*100*
4-Bromofluorobenzene (Surr)	*96*		*79 - 120*	*06/06/12 15:40*	*06/12/12 12:26*	*100*
Dibromofluoromethane	*101*		*74 - 123*	*06/06/12 15:40*	*06/12/12 12:26*	*100*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	17		2.0	0.99	mg/Kg	☼	06/06/12 15:40	06/10/12 21:19	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*	*06/06/12 15:40*	*06/10/12 21:19*	*100*
a,a,a-Trifluorotoluene	*94*		*70 - 130*	*06/06/12 15:40*	*06/10/12 21:19*	*100*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1300		100	18	mg/Kg	☼	06/08/12 18:25	06/12/12 02:23	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*59*		*32 - 110*	*06/08/12 18:25*	*06/12/12 02:23*	*10*
o-Terphenyl	*235*	*X*	*42 - 112*	*06/08/12 18:25*	*06/12/12 02:23*	*10*

Qualifiers

GC/MS 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 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 Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside 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
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)

QC Association Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

GC/MS VOA

Prep Batch: 152205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-1	120606101	Total/NA	Solid	5035	
500-47117-2	120606102	Total/NA	Solid	5035	
500-47117-3	120606103	Total/NA	Solid	5035	
500-47117-4	120606104	Total/NA	Solid	5035	
500-47117-5	120606105	Total/NA	Solid	5035	
500-47117-6	120606106	Total/NA	Solid	5035	
500-47117-7	120606107	Total/NA	Solid	5035	
500-47117-8	120606108	Total/NA	Solid	5035	
500-47117-9	120606109	Total/NA	Solid	5035	
500-47117-10	120606110	Total/NA	Solid	5035	
500-47117-11	120606111	Total/NA	Solid	5035	
500-47117-12	120606112	Total/NA	Solid	5035	

Analysis Batch: 152427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-1	120606101	Total/NA	Solid	8260B	152205
500-47117-2	120606102	Total/NA	Solid	8260B	152205
500-47117-3	120606103	Total/NA	Solid	8260B	152205
500-47117-4	120606104	Total/NA	Solid	8260B	152205
500-47117-5	120606105	Total/NA	Solid	8260B	152205
500-47117-6	120606106	Total/NA	Solid	8260B	152205
500-47117-7	120606107	Total/NA	Solid	8260B	152205
500-47117-8	120606108	Total/NA	Solid	8260B	152205
LCS 500-152427/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 500-152427/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 152489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-9	120606109	Total/NA	Solid	8260B	152205
500-47117-11	120606111	Total/NA	Solid	8260B	152205
500-47117-12	120606112	Total/NA	Solid	8260B	152205
LCS 500-152489/4	Lab Control Sample	Total/NA	Solid	8260B	
MB 500-152489/5	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 152616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-10	120606110	Total/NA	Solid	8260B	152205
LCS 500-152616/4	Lab Control Sample	Total/NA	Solid	8260B	
MB 500-152616/5	Method Blank	Total/NA	Solid	8260B	

GC VOA

Prep Batch: 152205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-1	120606101	Total/NA	Solid	5035	
500-47117-1 MS	120606101	Total/NA	Solid	5035	
500-47117-1 MSD	120606101	Total/NA	Solid	5035	
500-47117-2	120606102	Total/NA	Solid	5035	
500-47117-3	120606103	Total/NA	Solid	5035	
500-47117-4	120606104	Total/NA	Solid	5035	
500-47117-5	120606105	Total/NA	Solid	5035	
500-47117-6	120606106	Total/NA	Solid	5035	

GC VOA (Continued)

Prep Batch: 152205 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-7	120606107	Total/NA	Solid	5035	
500-47117-8	120606108	Total/NA	Solid	5035	
500-47117-9	120606109	Total/NA	Solid	5035	
500-47117-10	120606110	Total/NA	Solid	5035	
500-47117-11	120606111	Total/NA	Solid	5035	
500-47117-12	120606112	Total/NA	Solid	5035	

Analysis Batch: 152311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-1	120606101	Total/NA	Solid	8015B	152205
500-47117-1 MS	120606101	Total/NA	Solid	8015B	152205
500-47117-1 MSD	120606101	Total/NA	Solid	8015B	152205
500-47117-2	120606102	Total/NA	Solid	8015B	152205
500-47117-3	120606103	Total/NA	Solid	8015B	152205
500-47117-4	120606104	Total/NA	Solid	8015B	152205
500-47117-5	120606105	Total/NA	Solid	8015B	152205
500-47117-6	120606106	Total/NA	Solid	8015B	152205
500-47117-7	120606107	Total/NA	Solid	8015B	152205
500-47117-8	120606108	Total/NA	Solid	8015B	152205
500-47117-9	120606109	Total/NA	Solid	8015B	152205
500-47117-10	120606110	Total/NA	Solid	8015B	152205
500-47117-11	120606111	Total/NA	Solid	8015B	152205
500-47117-12	120606112	Total/NA	Solid	8015B	152205
LCS 500-152311/4	Lab Control Sample	Total/NA	Solid	8015B	
MB 500-152311/3	Method Blank	Total/NA	Solid	8015B	

GC Semi VOA

Prep Batch: 152246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-2	120606102	Total/NA	Solid	3541	
500-47117-3	120606103	Total/NA	Solid	3541	
500-47117-4	120606104	Total/NA	Solid	3541	
500-47117-5	120606105	Total/NA	Solid	3541	
500-47117-6	120606106	Total/NA	Solid	3541	
500-47117-7	120606107	Total/NA	Solid	3541	
500-47117-8	120606108	Total/NA	Solid	3541	
500-47117-9	120606109	Total/NA	Solid	3541	
500-47117-10	120606110	Total/NA	Solid	3541	
500-47117-11	120606111	Total/NA	Solid	3541	
500-47117-12	120606112	Total/NA	Solid	3541	
LCS 500-152246/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-152246/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 152417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-1	120606101	Total/NA	Solid	8015B	152459
500-47117-1 MS	120606101	Total/NA	Solid	8015B	152459
500-47117-1 MSD	120606101	Total/NA	Solid	8015B	152459
500-47117-2	120606102	Total/NA	Solid	8015B	152246
500-47117-3	120606103	Total/NA	Solid	8015B	152246
500-47117-4	120606104	Total/NA	Solid	8015B	152246

GC Semi VOA (Continued)

Analysis Batch: 152417 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-5	120606105	Total/NA	Solid	8015B	152246
500-47117-6	120606106	Total/NA	Solid	8015B	152246
500-47117-7	120606107	Total/NA	Solid	8015B	152246
500-47117-8	120606108	Total/NA	Solid	8015B	152246
500-47117-9	120606109	Total/NA	Solid	8015B	152246
500-47117-10	120606110	Total/NA	Solid	8015B	152246
500-47117-11	120606111	Total/NA	Solid	8015B	152246
500-47117-12	120606112	Total/NA	Solid	8015B	152246
LCS 500-152246/2-A	Lab Control Sample	Total/NA	Solid	8015B	152246
LCS 500-152459/2-A	Lab Control Sample	Total/NA	Solid	8015B	152459
MB 500-152246/1-A	Method Blank	Total/NA	Solid	8015B	152246
MB 500-152459/1-A	Method Blank	Total/NA	Solid	8015B	152459

Prep Batch: 152459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-1	120606101	Total/NA	Solid	3541	
500-47117-1 MS	120606101	Total/NA	Solid	3541	
500-47117-1 MSD	120606101	Total/NA	Solid	3541	
LCS 500-152459/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-152459/1-A	Method Blank	Total/NA	Solid	3541	

General Chemistry

Analysis Batch: 152159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47117-1	120606101	Total/NA	Solid	Moisture	
500-47117-1 DU	120606101	Total/NA	Solid	Moisture	
500-47117-2	120606102	Total/NA	Solid	Moisture	
500-47117-3	120606103	Total/NA	Solid	Moisture	
500-47117-4	120606104	Total/NA	Solid	Moisture	
500-47117-5	120606105	Total/NA	Solid	Moisture	
500-47117-6	120606106	Total/NA	Solid	Moisture	
500-47117-7	120606107	Total/NA	Solid	Moisture	
500-47117-8	120606108	Total/NA	Solid	Moisture	
500-47117-9	120606109	Total/NA	Solid	Moisture	
500-47117-10	120606110	Total/NA	Solid	Moisture	
500-47117-11	120606111	Total/NA	Solid	Moisture	
500-47117-12	120606112	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (75-131)	TOL (80-120)	BFB (79-120)	DBFM (74-123)
500-47117-1	120606101	124	98	101	107
500-47117-2	120606102	120	101	98	104
500-47117-3	120606103	116	100	98	104
500-47117-4	120606104	120	95	105	105
500-47117-5	120606105	119	93	98	104
500-47117-6	120606106	120	98	101	106
500-47117-7	120606107	117	101	95	99
500-47117-8	120606108	120	96	104	105
500-47117-9	120606109	113	104	97	93
500-47117-10	120606110	114	96	98	89
500-47117-11	120606111	112	98	98	96
500-47117-12	120606112	120	99	96	101
LCS 500-152427/3	Lab Control Sample	112	97	96	102
LCS 500-152489/4	Lab Control Sample	107	97	102	97
LCS 500-152616/4	Lab Control Sample	111	94	99	95
MB 500-152427/4	Method Blank	116	95	101	98
MB 500-152489/5	Method Blank	111	96	99	93
MB 500-152616/5	Method Blank	114	95	100	91

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	TFT1 (70-130)
500-47117-1	120606101	107	102
500-47117-1 MS	120606101	107	103
500-47117-1 MSD	120606101	107	103
500-47117-2	120606102	105	99
500-47117-3	120606103	104	104
500-47117-4	120606104	102	101
500-47117-5	120606105	103	101
500-47117-6	120606106	107	97
500-47117-7	120606107	99	100
500-47117-8	120606108	101	99
500-47117-9	120606109	101	101
500-47117-10	120606110	99	98
500-47117-11	120606111	100	97
500-47117-12	120606112	97	94
LCS 500-152311/4	Lab Control Sample	106	107
MB 500-152311/3	Method Blank	101	106

Surrogate Legend

BFB = 4-Bromofluorobenzene
TFT = a,a,a-Trifluorotoluene

Surrogate Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	FBP1 (32-110)	OTPH1 (42-112)						
500-47117-1	120606101	0 D	0 D						
500-47117-1 MS	120606101	0 D	0 D						
500-47117-1 MSD	120606101	0 D	0 D						
500-47117-2	120606102	76	447 X						
500-47117-3	120606103	75	363 X						
500-47117-4	120606104	68	151 X						
500-47117-5	120606105	0 D	0 D						
500-47117-6	120606106	0 D	0 D						
500-47117-7	120606107	0 D	0 D						
500-47117-8	120606108	63	130 X						
500-47117-9	120606109	66	124 X						
500-47117-10	120606110	71	268 X						
500-47117-11	120606111	0 D	0 D						
500-47117-12	120606112	59	235 X						
LCS 500-152246/2-A	Lab Control Sample	95	104						
LCS 500-152459/2-A	Lab Control Sample	95	102						
MB 500-152246/1-A	Method Blank	84	86						
MB 500-152459/1-A	Method Blank	95	104						

Surrogate Legend

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

QC Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-152427/4
Matrix: Solid
Analysis Batch: 152427

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00025		0.00025	0.000074	mg/Kg			06/11/12 21:47	1
Ethylbenzene	<0.00025		0.00025	0.00013	mg/Kg			06/11/12 21:47	1
Toluene	<0.00025		0.00025	0.00012	mg/Kg			06/11/12 21:47	1
m&p-Xylene	<0.00050		0.00050	0.00016	mg/Kg			06/11/12 21:47	1
o-Xylene	<0.00025		0.00025	0.000068	mg/Kg			06/11/12 21:47	1
Xylenes, Total	<0.00050		0.00050	0.000068	mg/Kg			06/11/12 21:47	1
1,2,4-Trimethylbenzene	<0.0020		0.0020	0.00021	mg/Kg			06/11/12 21:47	1
1,3,5-Trimethylbenzene	<0.0020		0.0020	0.00021	mg/Kg			06/11/12 21:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*75 - 131*		*06/11/12 21:47*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*06/11/12 21:47*	*1*
4-Bromofluorobenzene (Surr)	*101*		*79 - 120*		*06/11/12 21:47*	*1*
Dibromofluoromethane	*98*		*74 - 123*		*06/11/12 21:47*	*1*

Lab Sample ID: LCS 500-152427/3
Matrix: Solid
Analysis Batch: 152427

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0490		mg/Kg		98	74 - 115
Ethylbenzene	0.0500	0.0477		mg/Kg		95	79 - 115
Toluene	0.0500	0.0485		mg/Kg		97	80 - 120
m&p-Xylene	0.100	0.101		mg/Kg		101	78 - 120
o-Xylene	0.0500	0.0520		mg/Kg		104	78 - 120
Xylenes, Total	0.150	0.153		mg/Kg		102	78 - 120
1,2,4-Trimethylbenzene	0.0500	0.0546		mg/Kg		109	80 - 120
1,3,5-Trimethylbenzene	0.0500	0.0561		mg/Kg		112	83 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*112*		*75 - 131*
Toluene-d8 (Surr)	*97*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*79 - 120*
Dibromofluoromethane	*102*		*74 - 123*

Lab Sample ID: MB 500-152489/5
Matrix: Solid
Analysis Batch: 152489

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00025		0.00025	0.000074	mg/Kg			06/12/12 10:25	1
Ethylbenzene	<0.00025		0.00025	0.00013	mg/Kg			06/12/12 10:25	1
Toluene	<0.00025		0.00025	0.00012	mg/Kg			06/12/12 10:25	1
m&p-Xylene	<0.00050		0.00050	0.00016	mg/Kg			06/12/12 10:25	1
o-Xylene	<0.00025		0.00025	0.000068	mg/Kg			06/12/12 10:25	1
Xylenes, Total	<0.00050		0.00050	0.000068	mg/Kg			06/12/12 10:25	1
1,2,4-Trimethylbenzene	<0.0020		0.0020	0.00021	mg/Kg			06/12/12 10:25	1
1,3,5-Trimethylbenzene	<0.0020		0.0020	0.00021	mg/Kg			06/12/12 10:25	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-152489/5
Matrix: Solid
Analysis Batch: 152489

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		75 - 131		06/12/12 10:25	1
Toluene-d8 (Surr)	96		80 - 120		06/12/12 10:25	1
4-Bromofluorobenzene (Surr)	99		79 - 120		06/12/12 10:25	1
Dibromofluoromethane	93		74 - 123		06/12/12 10:25	1

Lab Sample ID: LCS 500-152489/4
Matrix: Solid
Analysis Batch: 152489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0471		mg/Kg		94	74 - 115
Ethylbenzene	0.0500	0.0476		mg/Kg		95	79 - 115
Toluene	0.0500	0.0489		mg/Kg		98	80 - 120
m&p-Xylene	0.100	0.103		mg/Kg		103	78 - 120
o-Xylene	0.0500	0.0501		mg/Kg		100	78 - 120
Xylenes, Total	0.150	0.153		mg/Kg		102	78 - 120
1,2,4-Trimethylbenzene	0.0500	0.0549		mg/Kg		110	80 - 120
1,3,5-Trimethylbenzene	0.0500	0.0564		mg/Kg		113	83 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		75 - 131
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	102		79 - 120
Dibromofluoromethane	97		74 - 123

Lab Sample ID: MB 500-152616/5
Matrix: Solid
Analysis Batch: 152616

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00025		0.00025	0.000074	mg/Kg			06/13/12 09:15	1
Ethylbenzene	<0.00025		0.00025	0.00013	mg/Kg			06/13/12 09:15	1
Toluene	<0.00025		0.00025	0.00012	mg/Kg			06/13/12 09:15	1
m&p-Xylene	<0.00050		0.00050	0.00016	mg/Kg			06/13/12 09:15	1
o-Xylene	<0.00025		0.00025	0.000068	mg/Kg			06/13/12 09:15	1
Xylenes, Total	<0.00050		0.00050	0.000068	mg/Kg			06/13/12 09:15	1
1,2,4-Trimethylbenzene	<0.0020		0.0020	0.00021	mg/Kg			06/13/12 09:15	1
1,3,5-Trimethylbenzene	<0.0020		0.0020	0.00021	mg/Kg			06/13/12 09:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		75 - 131		06/13/12 09:15	1
Toluene-d8 (Surr)	95		80 - 120		06/13/12 09:15	1
4-Bromofluorobenzene (Surr)	100		79 - 120		06/13/12 09:15	1
Dibromofluoromethane	91		74 - 123		06/13/12 09:15	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-152616/4
Matrix: Solid
Analysis Batch: 152616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0451		mg/Kg		90	74 - 115
Ethylbenzene	0.0500	0.0464		mg/Kg		93	79 - 115
Toluene	0.0500	0.0445		mg/Kg		89	80 - 120
m&p-Xylene	0.100	0.0994		mg/Kg		99	78 - 120
o-Xylene	0.0500	0.0493		mg/Kg		99	78 - 120
Xylenes, Total	0.150	0.149		mg/Kg		99	78 - 120
1,2,4-Trimethylbenzene	0.0500	0.0545		mg/Kg		109	80 - 120
1,3,5-Trimethylbenzene	0.0500	0.0549		mg/Kg		110	83 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*111*		*75 - 131*
Toluene-d8 (Surr)	*94*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*79 - 120*
Dibromofluoromethane	*95*		*74 - 123*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: 500-47117-1 MS
Matrix: Solid
Analysis Batch: 152311

Client Sample ID: 120606101
Prep Type: Total/NA
Prep Batch: 152205

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C9)	8.1		17.2	26.3		mg/Kg	☼	106	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*70 - 130*
a,a,a-Trifluorotoluene	*103*		*70 - 130*

Lab Sample ID: 500-47117-1 MSD
Matrix: Solid
Analysis Batch: 152311

Client Sample ID: 120606101
Prep Type: Total/NA
Prep Batch: 152205

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (C6-C9)	8.1		17.2	26.2		mg/Kg	☼	105	70 - 130	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*70 - 130*
a,a,a-Trifluorotoluene	*103*		*70 - 130*

Lab Sample ID: MB 500-152311/3
Matrix: Solid
Analysis Batch: 152311

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	<1.0		1.0	0.50	mg/Kg			06/10/12 11:36	50

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: MB 500-152311/3
Matrix: Solid
Analysis Batch: 152311

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		70 - 130		06/10/12 11:36	50
a,a,a-Trifluorotoluene	106		70 - 130		06/10/12 11:36	50

Lab Sample ID: LCS 500-152311/4
Matrix: Solid
Analysis Batch: 152311

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C9)	20.0	20.9		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	106		70 - 130
a,a,a-Trifluorotoluene	107		70 - 130

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 500-152246/1-A
Matrix: Solid
Analysis Batch: 152417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 152246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	<8.3		8.3	1.5	mg/Kg		06/08/12 18:25	06/11/12 16:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		32 - 110	06/08/12 18:25	06/11/12 16:07	1
o-Terphenyl	86		42 - 112	06/08/12 18:25	06/11/12 16:07	1

Lab Sample ID: LCS 500-152246/2-A
Matrix: Solid
Analysis Batch: 152417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 152246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.7	59.6		mg/Kg		89	56 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	95		32 - 110
o-Terphenyl	104		42 - 112

Lab Sample ID: MB 500-152459/1-A
Matrix: Solid
Analysis Batch: 152417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 152459

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	<8.3		8.3	1.5	mg/Kg		06/11/12 18:07	06/12/12 04:09	1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 500-152459/1-A
Matrix: Solid
Analysis Batch: 152417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 152459

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	95		32 - 110	06/11/12 18:07	06/12/12 04:09	1
o-Terphenyl	104		42 - 112	06/11/12 18:07	06/12/12 04:09	1

Lab Sample ID: LCS 500-152459/2-A
Matrix: Solid
Analysis Batch: 152417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 152459

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.7	59.9		mg/Kg		90	56 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	95		32 - 110
o-Terphenyl	102		42 - 112

Lab Sample ID: 500-47117-1 MS
Matrix: Solid
Analysis Batch: 152417

Client Sample ID: 120606101
Prep Type: Total/NA
Prep Batch: 152459

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2400		78.9	<490	D	mg/Kg	☼	0	56 - 122
Oil Range Organics (C28-C40)	2900		9860	<2000	D	mg/Kg	☼	0	56 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	0	D	32 - 110
o-Terphenyl	0	D	42 - 112

Lab Sample ID: 500-47117-1 MSD
Matrix: Solid
Analysis Batch: 152417

Client Sample ID: 120606101
Prep Type: Total/NA
Prep Batch: 152459

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2400		78.6	<490	D	mg/Kg	☼	0	56 - 122	NC	30
Oil Range Organics (C28-C40)	2900		9830	<2000	D	mg/Kg	☼	0	56 - 122	NC	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	0	D	32 - 110
o-Terphenyl	0	D	42 - 112

Lab Chronicle

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606101

Lab Sample ID: 500-47117-1
Date Collected: 06/06/12 09:30
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 09:30	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 05:26	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 09:30	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152311	06/10/12 12:48	WRE	TAL CHI
Total/NA	Prep	3541			152459	06/11/12 18:07	DEA	TAL CHI
Total/NA	Analysis	8015B		50	152417	06/13/12 21:37	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606102

Lab Sample ID: 500-47117-2
Date Collected: 06/06/12 10:00
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 82.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 10:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 05:49	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 10:00	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152311	06/10/12 14:38	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI
Total/NA	Analysis	8015B		10	152417	06/11/12 17:18	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606103

Lab Sample ID: 500-47117-3
Date Collected: 06/06/12 10:30
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 10:30	WRE	TAL CHI
Total/NA	Analysis	8260B		500	152427	06/12/12 06:13	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 10:30	WRE	TAL CHI
Total/NA	Analysis	8015B		500	152311	06/10/12 15:14	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI
Total/NA	Analysis	8015B		10	152417	06/11/12 17:53	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606104

Lab Sample ID: 500-47117-4
Date Collected: 06/06/12 11:05
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 11:05	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 06:37	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 11:05	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152311	06/10/12 15:51	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI

Lab Chronicle

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606104

Lab Sample ID: 500-47117-4
Date Collected: 06/06/12 11:05
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		10	152417	06/14/12 10:03	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606105

Lab Sample ID: 500-47117-5
Date Collected: 06/06/12 11:30
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 11:30	WRE	TAL CHI
Total/NA	Analysis	8260B		250	152427	06/12/12 07:01	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 11:30	WRE	TAL CHI
Total/NA	Analysis	8015B		100	152311	06/10/12 16:27	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI
Total/NA	Analysis	8015B		50	152417	06/14/12 10:39	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606106

Lab Sample ID: 500-47117-6
Date Collected: 06/06/12 12:15
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 12:15	WRE	TAL CHI
Total/NA	Analysis	8260B		250	152427	06/12/12 07:25	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 12:15	WRE	TAL CHI
Total/NA	Analysis	8015B		250	152311	06/10/12 17:04	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI
Total/NA	Analysis	8015B		100	152417	06/14/12 11:14	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606107

Lab Sample ID: 500-47117-7
Date Collected: 06/06/12 12:45
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 47.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 12:45	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 07:49	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 12:45	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152311	06/10/12 18:17	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI
Total/NA	Analysis	8015B		50	152417	06/14/12 11:49	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606108

Lab Sample ID: 500-47117-8
Date Collected: 06/06/12 13:15
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 13:15	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 08:13	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 13:15	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152311	06/10/12 18:53	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI
Total/NA	Analysis	8015B		10	152417	06/11/12 20:48	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606109

Lab Sample ID: 500-47117-9
Date Collected: 06/06/12 14:15
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 14:15	WRE	TAL CHI
Total/NA	Analysis	8260B		1000	152489	06/12/12 11:13	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 14:15	WRE	TAL CHI
Total/NA	Analysis	8015B		500	152311	06/10/12 19:30	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI
Total/NA	Analysis	8015B		10	152417	06/11/12 21:23	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606110

Lab Sample ID: 500-47117-10
Date Collected: 06/06/12 14:40
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 14:40	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152616	06/13/12 09:39	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 14:40	WRE	TAL CHI
Total/NA	Analysis	8015B		200	152311	06/10/12 20:06	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI
Total/NA	Analysis	8015B		10	152417	06/11/12 23:44	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606111

Lab Sample ID: 500-47117-11
Date Collected: 06/06/12 15:10
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 15:10	WRE	TAL CHI
Total/NA	Analysis	8260B		100	152489	06/12/12 12:01	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 15:10	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152311	06/10/12 20:43	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI

Lab Chronicle

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Client Sample ID: 120606111

Lab Sample ID: 500-47117-11

Date Collected: 06/06/12 15:10
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		200	152417	06/14/12 13:34	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Client Sample ID: 120606112

Lab Sample ID: 500-47117-12

Date Collected: 06/06/12 15:40
Matrix: Solid
Date Received: 06/07/12 15:30
Percent Solids: 78.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152205	06/06/12 15:40	WRE	TAL CHI
Total/NA	Analysis	8260B		100	152489	06/12/12 12:26	BDA	TAL CHI
Total/NA	Prep	5035			152205	06/06/12 15:40	WRE	TAL CHI
Total/NA	Analysis	8015B		100	152311	06/10/12 21:19	WRE	TAL CHI
Total/NA	Prep	3541			152246	06/08/12 18:25	JP	TAL CHI
Total/NA	Analysis	8015B		10	152417	06/12/12 02:23	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152159	06/08/12 08:49	CMV	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47117-1

Laboratory	Authority	Program	EPA Region	Certification ID
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	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.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Lab Job #: 500-47117

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler:

(optional)
Report To
Contact: Tim Norris
Company: NRT
Address: 4161 West 36th Street
Address: Chicago, IL 60632
Phone: 312-203-6399
Fax:
E-Mail: tnorris@naturalrt.com

(optional)
Bill To
Contact: Accounts Payable
Company: IBS LLC
Address: P.O. Box 19800
Address: Green Bay, WI 54307
Phone: 920-493-7929
Fax:
PO#/Reference#

Client: NRT
Client Project #: ~~2066~~ 2037
Project Name: Crawford Parcel L
Project Location/State: Chicago, IL
Lab Project #:
Sampler: BSH
Lab PM: Jim Knapp

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	PVOC 5035/8260	TPH DRO/~~GRO~~ 3541/8015	TPH GRO 5030/8015B							Comments
1		120606101	6/6	930	7	S	X	X	X							
2		120606102		1000	7		X	X	X							
3		120606103		1030	7		X	X	X							
4		120606104		1105	7		X	X	X							
5		120606105		1130	7		X	X	X							
6		120606106		1215	7		X	X	X							
7		120606107		1245	7		X	X	X							
8		120606108		1315	7		X	X	X							
9		120606109		1415	7		X	X	X							
10		120606110		1440	7		X	X	X							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days X 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ____ Other
Requested Due Date ____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	NRT	6/6	1400	[illegible]	TAL	06/07/12	1445
[illegible]	TAL	06/07/12	1530	[illegible]	TA-CHI	6/7/12	1530

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW - Wastewater
W - Water
S - Soil
SL - Sludge
MS - Miscellaneous
OL - Oil
A - Air
SE - Sediment
SO - Soil
L - Leachate
WI - Wipe
DW - Drinking Water
O - Other

Client Comments

Lab Comments:

6/14/2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact: Tim Norris
Company: NRT
Address: 4161 West 36th Street
Address: Chicago, IL 60632
Phone: (312) 203-6399
Fax:
E-Mail: tnorris@naturalrt.com

(optional)
Bill To
Contact: Accounts Payable
Company: IBS, LLC
Address: P.O. Box 19800
Address: Green Bay, WI 54307
Phone: 920-433-2929
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-47117
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler:

Client: NRT
Client Project #: ~~3066~~ 2037
Project Name: Crawford Parcel L
Project Location/State: Chicago, IL
Lab Project #:
Sampler: RJH
Lab PM: Jim Knapp

Preservative
Parameter

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	PVOC 5055/8260	TPH DRO 3541/8015	TPH GRO 5030/8015B							Comments
11		120606111	1510	6/6	7	S	X	X	X							
12		120606112	1540	6/6	7	S	X	X	X							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days X 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ Other
Requested Due Date ____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	NRT	6/6	1400	[signature]	TAL	06/07/12	1415
[signature]	TAL	06/07/12	1530	Sherri Scott	TA-CHI	6/7/12	1530

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

124-560 (1809)
2012

Login Sample Receipt Checklist

Client: Natural Resource Technology, Inc.

Job Number: 500-47117-1

Login Number: 47117
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
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	4.0
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 sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
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 Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-47199-1
Client Project/Site: Crawford Station - Parcel L

For:
Natural Resource Technology, Inc.
300 S. Wacker Drive
Suite 2050
Chicago, Illinois 60606

Attn: Mr. Tim B Norris

Authorized for release by:
6/14/2012 11:33:17 AM

Jim Knapp
Customer Service Manager
jim.knapp@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: 500-47199-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-47199-1

Comments
No additional comments.

Receipt
The samples were received on 6/8/2012 2:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.2° C and 4.5° C.

GC/MS VOA
Method(s) 8260B: The following samples were diluted due to the abundance of target and non-target analytes: 120607101 (500-47199-1), 120607102 (500-47199-2), 120607103 (500-47199-3), 120607104 (500-47199-4), 120607105 (500-47199-5), 120607106 (500-47199-6), 120607107 (500-47199-7), 120607108 (500-47199-8), 120607109 (500-47199-9), 120607110 (500-47199-10), 120607111 (500-47199-11), 120607112 (500-47199-12), 120607113 (500-47199-13), 120608101 (500-47199-14), 120608102 (500-47199-15), 120608103 (500-47199-16), 120608104 (500-47199-17). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC VOA
Method(s) 8015B: The matrix spike (MS) recovery for batch 152336 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8015B: The following samples were diluted due to the abundance of non-target analytes: 120607112 (500-47199-12), 120607113 (500-47199-13). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8015B: The continuing calibration verification (CCV) for analytical batch 152493 exceeded control criteria for 2-Fluorobiphenyl. The data have been qualified and reported. 120607108 (500-47199-8), 120607109 (500-47199-9), 120607110 (500-47199-10), 120607111 (500-47199-11), 120607112 (500-47199-12), 120607113 (500-47199-13), 120608101 (500-47199-14), 120608102 (500-47199-15), 120608103 (500-47199-16), 120608104 (500-47199-17)

Method(s) 8015B: Due to the level of dilution required for the following samples, surrogate recoveries are not reported: 120607101 (500-47199-1), 120607101 (500-47199-1 MS), 120607101 (500-47199-1 MSD), 120607102 (500-47199-2), 120607103 (500-47199-3), 120607104 (500-47199-4), 120608102 (500-47199-15), 120608104 (500-47199-17).

Method(s) 8015B: Surrogate recovery for the following samples were outside control limits: 120607105 (500-47199-5), 120607112 (500-47199-12), 120607113 (500-47199-13), 120608101 (500-47199-14), 120608103 (500-47199-16). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8015B: Due to the high concentration of C10-C28, the matrix spike / matrix spike duplicate (MS/MSD) for batch 152342 were diluted out. The associated laboratory control sample (LCS) met acceptance criteria. 120607101 (500-47199-1 MS), 120607101 (500-47199-1 MSD)

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607101 — Lab Sample ID: 500-47199-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.16		0.012	0.0036	mg/Kg	50	☼	8260B	Total/NA
Ethylbenzene	0.18		0.012	0.0061	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.11		0.012	0.0056	mg/Kg	50	☼	8260B	Total/NA
m&p-Xylene	0.15		0.024	0.0078	mg/Kg	50	☼	8260B	Total/NA
o-Xylene	0.11		0.012	0.0033	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	0.26		0.024	0.0033	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.15		0.097	0.010	mg/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.071	J	0.097	0.010	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	14		0.97	0.48	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	2200		470	86	mg/Kg	50	☼	8015B	Total/NA

Client Sample ID: 120607102 — Lab Sample ID: 500-47199-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.5		0.071	0.021	mg/Kg	250	☼	8260B	Total/NA
Ethylbenzene	0.43		0.071	0.036	mg/Kg	250	☼	8260B	Total/NA
Toluene	0.19		0.071	0.033	mg/Kg	250	☼	8260B	Total/NA
m&p-Xylene	0.64		0.14	0.046	mg/Kg	250	☼	8260B	Total/NA
o-Xylene	0.58		0.071	0.019	mg/Kg	250	☼	8260B	Total/NA
Xylenes, Total	1.2		0.14	0.019	mg/Kg	250	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	1.7		0.57	0.060	mg/Kg	250	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	1.2		0.57	0.058	mg/Kg	250	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	21		4.5	2.3	mg/Kg	200	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	21000		1100	190	mg/Kg	100	☼	8015B	Total/NA

Client Sample ID: 120607103 — Lab Sample ID: 500-47199-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.43		0.056	0.017	mg/Kg	200	☼	8260B	Total/NA
Ethylbenzene	0.14		0.056	0.028	mg/Kg	200	☼	8260B	Total/NA
Toluene	0.084		0.056	0.026	mg/Kg	200	☼	8260B	Total/NA
m&p-Xylene	0.27		0.11	0.036	mg/Kg	200	☼	8260B	Total/NA
o-Xylene	0.19		0.056	0.015	mg/Kg	200	☼	8260B	Total/NA
Xylenes, Total	0.46		0.11	0.015	mg/Kg	200	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.79		0.45	0.047	mg/Kg	200	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.41	J	0.45	0.046	mg/Kg	200	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	11		2.2	1.1	mg/Kg	100	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	47000		5600	1000	mg/Kg	500	☼	8015B	Total/NA

Client Sample ID: 120607104 — Lab Sample ID: 500-47199-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.28		0.024	0.0070	mg/Kg	100	☼	8260B	Total/NA
Ethylbenzene	0.52		0.024	0.012	mg/Kg	100	☼	8260B	Total/NA
Toluene	0.14		0.024	0.011	mg/Kg	100	☼	8260B	Total/NA
m&p-Xylene	0.53		0.047	0.015	mg/Kg	100	☼	8260B	Total/NA
o-Xylene	0.44		0.024	0.0064	mg/Kg	100	☼	8260B	Total/NA
Xylenes, Total	0.97		0.047	0.0064	mg/Kg	100	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	1.1		0.19	0.020	mg/Kg	100	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.50		0.19	0.019	mg/Kg	100	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	17		3.8	1.9	mg/Kg	200	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	2700		960	170	mg/Kg	100	☼	8015B	Total/NA

Detection Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607105 — Lab Sample ID: 500-47199-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.097		0.011	0.0032	mg/Kg	50	☼	8260B	Total/NA
Ethylbenzene	0.084		0.011	0.0055	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.079		0.011	0.0050	mg/Kg	50	☼	8260B	Total/NA
m&p-Xylene	0.30		0.022	0.0070	mg/Kg	50	☼	8260B	Total/NA
o-Xylene	0.10		0.011	0.0030	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	0.40		0.022	0.0030	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.14		0.087	0.0091	mg/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.044	J	0.087	0.0089	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	12		0.87	0.43	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	670		96	17	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120607106 — Lab Sample ID: 500-47199-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.084		0.019	0.0093	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.14		0.019	0.0085	mg/Kg	50	☼	8260B	Total/NA
m&p-Xylene	0.28		0.037	0.012	mg/Kg	50	☼	8260B	Total/NA
o-Xylene	0.19		0.019	0.0051	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	0.47		0.037	0.0051	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.22		0.15	0.016	mg/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.30		0.15	0.015	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	25		1.5	0.74	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	500		99	18	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120607107 — Lab Sample ID: 500-47199-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44		0.012	0.0036	mg/Kg	50	☼	8260B	Total/NA
Ethylbenzene	0.31		0.012	0.0061	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.49		0.012	0.0056	mg/Kg	50	☼	8260B	Total/NA
m&p-Xylene	0.49		0.024	0.0078	mg/Kg	50	☼	8260B	Total/NA
o-Xylene	0.20		0.012	0.0033	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	0.68		0.024	0.0033	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.28		0.097	0.010	mg/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.13		0.097	0.010	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	28		0.97	0.49	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	130		9.3	1.7	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: 120607108 — Lab Sample ID: 500-47199-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3		0.021	0.0062	mg/Kg	100	☼	8260B	Total/NA
Ethylbenzene	0.53		0.021	0.011	mg/Kg	100	☼	8260B	Total/NA
Toluene	0.013	J	0.021	0.0096	mg/Kg	100	☼	8260B	Total/NA
m&p-Xylene	0.048		0.042	0.013	mg/Kg	100	☼	8260B	Total/NA
o-Xylene	0.069		0.021	0.0057	mg/Kg	100	☼	8260B	Total/NA
Xylenes, Total	0.12		0.042	0.0057	mg/Kg	100	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	27		1.7	0.84	mg/Kg	100	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	560		96	17	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120607109 — Lab Sample ID: 500-47199-9

Client Sample ID: 120607109 (Continued) — Lab Sample ID: 500-47199-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.33		0.16	0.017	mg/Kg	100	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	3.9		0.79	0.39	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	79		10	1.8	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: 120607110 — Lab Sample ID: 500-47199-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.057		0.023	0.0069	mg/Kg	50	☼	8260B	Total/NA
Ethylbenzene	0.12		0.023	0.012	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.22		0.023	0.011	mg/Kg	50	☼	8260B	Total/NA
m&p-Xylene	0.61		0.047	0.015	mg/Kg	50	☼	8260B	Total/NA
o-Xylene	0.48		0.023	0.0064	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	1.1		0.047	0.0064	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.57		0.19	0.020	mg/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.27		0.19	0.019	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	30		1.9	0.93	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	340		120	21	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120607111 — Lab Sample ID: 500-47199-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (C6-C9)	7.9		0.85	0.43	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	180		10	1.8	mg/Kg	1	☼	8015B	Total/NA

Client Sample ID: 120607112 — Lab Sample ID: 500-47199-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.024		0.011	0.0032	mg/Kg	50	☼	8260B	Total/NA
Ethylbenzene	0.014		0.011	0.0054	mg/Kg	50	☼	8260B	Total/NA
Toluene	0.0085	J	0.011	0.0050	mg/Kg	50	☼	8260B	Total/NA
m&p-Xylene	0.027		0.022	0.0069	mg/Kg	50	☼	8260B	Total/NA
o-Xylene	0.017		0.011	0.0030	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	0.043		0.022	0.0030	mg/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	0.064	J	0.086	0.0091	mg/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.033	J	0.086	0.0089	mg/Kg	50	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	0.81	J	0.86	0.43	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	1600		97	18	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120607113 — Lab Sample ID: 500-47199-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1800		110	20	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120608101 — Lab Sample ID: 500-47199-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (C6-C9)	1.0		0.87	0.44	mg/Kg	50	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	210		93	17	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120608102 — Lab Sample ID: 500-47199-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.2		0.11	0.033	mg/Kg	500	☼	8260B	Total/NA

Client Sample ID: 120608102 (Continued) — Lab Sample ID: 500-47199-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	3.0		0.11	0.056	mg/Kg	500	☼	8260B	Total/NA
o-Xylene	0.39		0.11	0.030	mg/Kg	500	☼	8260B	Total/NA
Xylenes, Total	0.39		0.22	0.030	mg/Kg	500	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	5.1		0.88	0.093	mg/Kg	500	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.43	J	0.88	0.091	mg/Kg	500	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	31		8.8	4.4	mg/Kg	500	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	5200		950	170	mg/Kg	100	☼	8015B	Total/NA

Client Sample ID: 120608103 — Lab Sample ID: 500-47199-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3		0.046	0.014	mg/Kg	200	☼	8260B	Total/NA
Ethylbenzene	1.4		0.046	0.023	mg/Kg	200	☼	8260B	Total/NA
o-Xylene	0.12		0.046	0.013	mg/Kg	200	☼	8260B	Total/NA
Xylenes, Total	0.12		0.093	0.013	mg/Kg	200	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	3.7		0.37	0.039	mg/Kg	200	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.31	J	0.37	0.038	mg/Kg	200	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	28		3.7	1.9	mg/Kg	200	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	1900		100	19	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: 120608104 — Lab Sample ID: 500-47199-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.5		0.11	0.034	mg/Kg	500	☼	8260B	Total/NA
Ethylbenzene	4.6		0.11	0.058	mg/Kg	500	☼	8260B	Total/NA
o-Xylene	0.69		0.11	0.031	mg/Kg	500	☼	8260B	Total/NA
Xylenes, Total	0.69		0.23	0.031	mg/Kg	500	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	5.6		0.92	0.097	mg/Kg	500	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	0.66	J	0.92	0.094	mg/Kg	500	☼	8260B	Total/NA
Gasoline Range Organics (C6-C9)	44		9.2	4.6	mg/Kg	500	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	3300		980	180	mg/Kg	100	☼	8015B	Total/NA

Method Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8015B	Gasoline Range Organics - (GC)	SW846	TAL CHI
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

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 CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-47199-1	120607101	Solid	06/07/12 08:50	06/08/12 14:20
500-47199-2	120607102	Solid	06/07/12 09:30	06/08/12 14:20
500-47199-3	120607103	Solid	06/07/12 09:35	06/08/12 14:20
500-47199-4	120607104	Solid	06/07/12 10:00	06/08/12 14:20
500-47199-5	120607105	Solid	06/07/12 10:25	06/08/12 14:20
500-47199-6	120607106	Solid	06/07/12 11:00	06/08/12 14:20
500-47199-7	120607107	Solid	06/07/12 11:45	06/08/12 14:20
500-47199-8	120607108	Solid	06/07/12 11:45	06/08/12 14:20
500-47199-9	120607109	Solid	06/07/12 12:10	06/08/12 14:20
500-47199-10	120607110	Solid	06/07/12 13:00	06/08/12 14:20
500-47199-11	120607111	Solid	06/07/12 13:30	06/08/12 14:20
500-47199-12	120607112	Solid	06/07/12 14:15	06/08/12 14:20
500-47199-13	120607113	Solid	06/07/12 14:15	06/08/12 14:20
500-47199-14	120608101	Solid	06/07/12 10:15	06/08/12 14:20
500-47199-15	120608102	Solid	06/07/12 10:45	06/08/12 14:20
500-47199-16	120608103	Solid	06/07/12 10:45	06/08/12 14:20
500-47199-17	120608104	Solid	06/07/12 10:45	06/08/12 14:20

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607101
Date Collected: 06/07/12 08:50
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-1
Matrix: Solid
Percent Solids: 85.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.16		0.012	0.0036	mg/Kg	☼	06/07/12 08:50	06/11/12 22:12	50
Ethylbenzene	0.18		0.012	0.0061	mg/Kg	☼	06/07/12 08:50	06/11/12 22:12	50
Toluene	0.11		0.012	0.0056	mg/Kg	☼	06/07/12 08:50	06/11/12 22:12	50
m&p-Xylene	0.15		0.024	0.0078	mg/Kg	☼	06/07/12 08:50	06/11/12 22:12	50
o-Xylene	0.11		0.012	0.0033	mg/Kg	☼	06/07/12 08:50	06/11/12 22:12	50
Xylenes, Total	0.26		0.024	0.0033	mg/Kg	☼	06/07/12 08:50	06/11/12 22:12	50
1,2,4-Trimethylbenzene	0.15		0.097	0.010	mg/Kg	☼	06/07/12 08:50	06/11/12 22:12	50
1,3,5-Trimethylbenzene	0.071	J	0.097	0.010	mg/Kg	☼	06/07/12 08:50	06/11/12 22:12	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*75 - 131*	*06/07/12 08:50*	*06/11/12 22:12*	*50*
Toluene-d8 (Surr)	*96*		*80 - 120*	*06/07/12 08:50*	*06/11/12 22:12*	*50*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*	*06/07/12 08:50*	*06/11/12 22:12*	*50*
Dibromofluoromethane	*98*		*74 - 123*	*06/07/12 08:50*	*06/11/12 22:12*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	14		0.97	0.48	mg/Kg	☼	06/07/12 08:50	06/11/12 10:27	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*70 - 130*	*06/07/12 08:50*	*06/11/12 10:27*	*50*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*06/07/12 08:50*	*06/11/12 10:27*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2200		470	86	mg/Kg	☼	06/11/12 07:08	06/13/12 10:01	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/11/12 07:08*	*06/13/12 10:01*	*50*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/11/12 07:08*	*06/13/12 10:01*	*50*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607102
Date Collected: 06/07/12 09:30
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-2
Matrix: Solid
Percent Solids: 76.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.5		0.071	0.021	mg/Kg	☼	06/07/12 09:30	06/11/12 23:24	250
Ethylbenzene	0.43		0.071	0.036	mg/Kg	☼	06/07/12 09:30	06/11/12 23:24	250
Toluene	0.19		0.071	0.033	mg/Kg	☼	06/07/12 09:30	06/11/12 23:24	250
m&p-Xylene	0.64		0.14	0.046	mg/Kg	☼	06/07/12 09:30	06/11/12 23:24	250
o-Xylene	0.58		0.071	0.019	mg/Kg	☼	06/07/12 09:30	06/11/12 23:24	250
Xylenes, Total	1.2		0.14	0.019	mg/Kg	☼	06/07/12 09:30	06/11/12 23:24	250
1,2,4-Trimethylbenzene	1.7		0.57	0.060	mg/Kg	☼	06/07/12 09:30	06/11/12 23:24	250
1,3,5-Trimethylbenzene	1.2		0.57	0.058	mg/Kg	☼	06/07/12 09:30	06/11/12 23:24	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*75 - 131*	*06/07/12 09:30*	*06/11/12 23:24*	*250*
Toluene-d8 (Surr)	*98*		*80 - 120*	*06/07/12 09:30*	*06/11/12 23:24*	*250*
4-Bromofluorobenzene (Surr)	*95*		*79 - 120*	*06/07/12 09:30*	*06/11/12 23:24*	*250*
Dibromofluoromethane	*99*		*74 - 123*	*06/07/12 09:30*	*06/11/12 23:24*	*250*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	21		4.5	2.3	mg/Kg	☼	06/07/12 09:30	06/11/12 12:16	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*	*06/07/12 09:30*	*06/11/12 12:16*	*200*
a,a,a-Trifluorotoluene	*101*		*70 - 130*	*06/07/12 09:30*	*06/11/12 12:16*	*200*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	21000		1100	190	mg/Kg	☼	06/11/12 07:08	06/13/12 15:56	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/11/12 07:08*	*06/13/12 15:56*	*100*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/11/12 07:08*	*06/13/12 15:56*	*100*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607103
Date Collected: 06/07/12 09:35
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-3
Matrix: Solid
Percent Solids: 73.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.43		0.056	0.017	mg/Kg	☼	06/07/12 09:35	06/11/12 23:48	200
Ethylbenzene	0.14		0.056	0.028	mg/Kg	☼	06/07/12 09:35	06/11/12 23:48	200
Toluene	0.084		0.056	0.026	mg/Kg	☼	06/07/12 09:35	06/11/12 23:48	200
m&p-Xylene	0.27		0.11	0.036	mg/Kg	☼	06/07/12 09:35	06/11/12 23:48	200
o-Xylene	0.19		0.056	0.015	mg/Kg	☼	06/07/12 09:35	06/11/12 23:48	200
Xylenes, Total	0.46		0.11	0.015	mg/Kg	☼	06/07/12 09:35	06/11/12 23:48	200
1,2,4-Trimethylbenzene	0.79		0.45	0.047	mg/Kg	☼	06/07/12 09:35	06/11/12 23:48	200
1,3,5-Trimethylbenzene	0.41	J	0.45	0.046	mg/Kg	☼	06/07/12 09:35	06/11/12 23:48	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*75 - 131*	*06/07/12 09:35*	*06/11/12 23:48*	*200*
Toluene-d8 (Surr)	*98*		*80 - 120*	*06/07/12 09:35*	*06/11/12 23:48*	*200*
4-Bromofluorobenzene (Surr)	*96*		*79 - 120*	*06/07/12 09:35*	*06/11/12 23:48*	*200*
Dibromofluoromethane	*104*		*74 - 123*	*06/07/12 09:35*	*06/11/12 23:48*	*200*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	11		2.2	1.1	mg/Kg	☼	06/07/12 09:35	06/11/12 12:52	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 130*	*06/07/12 09:35*	*06/11/12 12:52*	*100*
a,a,a-Trifluorotoluene	*100*		*70 - 130*	*06/07/12 09:35*	*06/11/12 12:52*	*100*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	47000		5600	1000	mg/Kg	☼	06/11/12 07:08	06/13/12 19:48	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/11/12 07:08*	*06/13/12 19:48*	*500*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/11/12 07:08*	*06/13/12 19:48*	*500*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607104
Date Collected: 06/07/12 10:00
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-4
Matrix: Solid
Percent Solids: 82.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.28		0.024	0.0070	mg/Kg	☼	06/07/12 10:00	06/12/12 00:12	100
Ethylbenzene	0.52		0.024	0.012	mg/Kg	☼	06/07/12 10:00	06/12/12 00:12	100
Toluene	0.14		0.024	0.011	mg/Kg	☼	06/07/12 10:00	06/12/12 00:12	100
m&p-Xylene	0.53		0.047	0.015	mg/Kg	☼	06/07/12 10:00	06/12/12 00:12	100
o-Xylene	0.44		0.024	0.0064	mg/Kg	☼	06/07/12 10:00	06/12/12 00:12	100
Xylenes, Total	0.97		0.047	0.0064	mg/Kg	☼	06/07/12 10:00	06/12/12 00:12	100
1,2,4-Trimethylbenzene	1.1		0.19	0.020	mg/Kg	☼	06/07/12 10:00	06/12/12 00:12	100
1,3,5-Trimethylbenzene	0.50		0.19	0.019	mg/Kg	☼	06/07/12 10:00	06/12/12 00:12	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 131*	*06/07/12 10:00*	*06/12/12 00:12*	*100*
Toluene-d8 (Surr)	*100*		*80 - 120*	*06/07/12 10:00*	*06/12/12 00:12*	*100*
4-Bromofluorobenzene (Surr)	*99*		*79 - 120*	*06/07/12 10:00*	*06/12/12 00:12*	*100*
Dibromofluoromethane	*99*		*74 - 123*	*06/07/12 10:00*	*06/12/12 00:12*	*100*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	17		3.8	1.9	mg/Kg	☼	06/07/12 10:00	06/11/12 13:28	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 130*	*06/07/12 10:00*	*06/11/12 13:28*	*200*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*06/07/12 10:00*	*06/11/12 13:28*	*200*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2700		960	170	mg/Kg	☼	06/11/12 07:08	06/13/12 20:24	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/11/12 07:08*	*06/13/12 20:24*	*100*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/11/12 07:08*	*06/13/12 20:24*	*100*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607105
Date Collected: 06/07/12 10:25
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-5
Matrix: Solid
Percent Solids: 82.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.097		0.011	0.0032	mg/Kg	☼	06/07/12 10:25	06/12/12 00:36	50
Ethylbenzene	0.084		0.011	0.0055	mg/Kg	☼	06/07/12 10:25	06/12/12 00:36	50
Toluene	0.079		0.011	0.0050	mg/Kg	☼	06/07/12 10:25	06/12/12 00:36	50
m&p-Xylene	0.30		0.022	0.0070	mg/Kg	☼	06/07/12 10:25	06/12/12 00:36	50
o-Xylene	0.10		0.011	0.0030	mg/Kg	☼	06/07/12 10:25	06/12/12 00:36	50
Xylenes, Total	0.40		0.022	0.0030	mg/Kg	☼	06/07/12 10:25	06/12/12 00:36	50
1,2,4-Trimethylbenzene	0.14		0.087	0.0091	mg/Kg	☼	06/07/12 10:25	06/12/12 00:36	50
1,3,5-Trimethylbenzene	0.044	J	0.087	0.0089	mg/Kg	☼	06/07/12 10:25	06/12/12 00:36	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 131*	*06/07/12 10:25*	*06/12/12 00:36*	*50*
Toluene-d8 (Surr)	*97*		*80 - 120*	*06/07/12 10:25*	*06/12/12 00:36*	*50*
4-Bromofluorobenzene (Surr)	*99*		*79 - 120*	*06/07/12 10:25*	*06/12/12 00:36*	*50*
Dibromofluoromethane	*103*		*74 - 123*	*06/07/12 10:25*	*06/12/12 00:36*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	12		0.87	0.43	mg/Kg	☼	06/07/12 10:25	06/11/12 14:05	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*70 - 130*	*06/07/12 10:25*	*06/11/12 14:05*	*50*
a,a,a-Trifluorotoluene	*98*		*70 - 130*	*06/07/12 10:25*	*06/11/12 14:05*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	670		96	17	mg/Kg	☼	06/11/12 07:08	06/13/12 20:59	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*32 - 110*	*06/11/12 07:08*	*06/13/12 20:59*	*10*
o-Terphenyl	*138*	*X*	*42 - 112*	*06/11/12 07:08*	*06/13/12 20:59*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607106
Date Collected: 06/07/12 11:00
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-6
Matrix: Solid
Percent Solids: 82.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.019		0.019	0.0055	mg/Kg	☼	06/07/12 11:00	06/12/12 01:00	50
Ethylbenzene	0.084		0.019	0.0093	mg/Kg	☼	06/07/12 11:00	06/12/12 01:00	50
Toluene	0.14		0.019	0.0085	mg/Kg	☼	06/07/12 11:00	06/12/12 01:00	50
m&p-Xylene	0.28		0.037	0.012	mg/Kg	☼	06/07/12 11:00	06/12/12 01:00	50
o-Xylene	0.19		0.019	0.0051	mg/Kg	☼	06/07/12 11:00	06/12/12 01:00	50
Xylenes, Total	0.47		0.037	0.0051	mg/Kg	☼	06/07/12 11:00	06/12/12 01:00	50
1,2,4-Trimethylbenzene	0.22		0.15	0.016	mg/Kg	☼	06/07/12 11:00	06/12/12 01:00	50
1,3,5-Trimethylbenzene	0.30		0.15	0.015	mg/Kg	☼	06/07/12 11:00	06/12/12 01:00	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*75 - 131*	*06/07/12 11:00*	*06/12/12 01:00*	*50*
Toluene-d8 (Surr)	*97*		*80 - 120*	*06/07/12 11:00*	*06/12/12 01:00*	*50*
4-Bromofluorobenzene (Surr)	*100*		*79 - 120*	*06/07/12 11:00*	*06/12/12 01:00*	*50*
Dibromofluoromethane	*98*		*74 - 123*	*06/07/12 11:00*	*06/12/12 01:00*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	25		1.5	0.74	mg/Kg	☼	06/07/12 11:00	06/11/12 14:41	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*70 - 130*	*06/07/12 11:00*	*06/11/12 14:41*	*50*
a,a,a-Trifluorotoluene	*87*		*70 - 130*	*06/07/12 11:00*	*06/11/12 14:41*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	500		99	18	mg/Kg	☼	06/11/12 07:08	06/13/12 22:10	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*32 - 110*	*06/11/12 07:08*	*06/13/12 22:10*	*10*
o-Terphenyl	*111*		*42 - 112*	*06/11/12 07:08*	*06/13/12 22:10*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607107
Date Collected: 06/07/12 11:45
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-7
Matrix: Solid
Percent Solids: 86.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.44		0.012	0.0036	mg/Kg	☼	06/07/12 11:45	06/12/12 01:24	50
Ethylbenzene	0.31		0.012	0.0061	mg/Kg	☼	06/07/12 11:45	06/12/12 01:24	50
Toluene	0.49		0.012	0.0056	mg/Kg	☼	06/07/12 11:45	06/12/12 01:24	50
m&p-Xylene	0.49		0.024	0.0078	mg/Kg	☼	06/07/12 11:45	06/12/12 01:24	50
o-Xylene	0.20		0.012	0.0033	mg/Kg	☼	06/07/12 11:45	06/12/12 01:24	50
Xylenes, Total	0.68		0.024	0.0033	mg/Kg	☼	06/07/12 11:45	06/12/12 01:24	50
1,2,4-Trimethylbenzene	0.28		0.097	0.010	mg/Kg	☼	06/07/12 11:45	06/12/12 01:24	50
1,3,5-Trimethylbenzene	0.13		0.097	0.010	mg/Kg	☼	06/07/12 11:45	06/12/12 01:24	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*75 - 131*	*06/07/12 11:45*	*06/12/12 01:24*	*50*
Toluene-d8 (Surr)	*94*		*80 - 120*	*06/07/12 11:45*	*06/12/12 01:24*	*50*
4-Bromofluorobenzene (Surr)	*101*		*79 - 120*	*06/07/12 11:45*	*06/12/12 01:24*	*50*
Dibromofluoromethane	*100*		*74 - 123*	*06/07/12 11:45*	*06/12/12 01:24*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	28		0.97	0.49	mg/Kg	☼	06/07/12 11:45	06/11/12 15:54	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*115*		*70 - 130*	*06/07/12 11:45*	*06/11/12 15:54*	*50*
a,a,a-Trifluorotoluene	*100*		*70 - 130*	*06/07/12 11:45*	*06/11/12 15:54*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	130		9.3	1.7	mg/Kg	☼	06/11/12 07:08	06/13/12 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*32 - 110*	*06/11/12 07:08*	*06/13/12 14:45*	*1*
o-Terphenyl	*99*		*42 - 112*	*06/11/12 07:08*	*06/13/12 14:45*	*1*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607108
Date Collected: 06/07/12 11:45
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-8
Matrix: Solid
Percent Solids: 83.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.3		0.021	0.0062	mg/Kg	☼	06/07/12 11:45	06/12/12 01:48	100
Ethylbenzene	0.53		0.021	0.011	mg/Kg	☼	06/07/12 11:45	06/12/12 01:48	100
Toluene	0.013	J	0.021	0.0096	mg/Kg	☼	06/07/12 11:45	06/12/12 01:48	100
m&p-Xylene	0.048		0.042	0.013	mg/Kg	☼	06/07/12 11:45	06/12/12 01:48	100
o-Xylene	0.069		0.021	0.0057	mg/Kg	☼	06/07/12 11:45	06/12/12 01:48	100
Xylenes, Total	0.12		0.042	0.0057	mg/Kg	☼	06/07/12 11:45	06/12/12 01:48	100
1,2,4-Trimethylbenzene	<0.17		0.17	0.018	mg/Kg	☼	06/07/12 11:45	06/12/12 01:48	100
1,3,5-Trimethylbenzene	<0.17		0.17	0.017	mg/Kg	☼	06/07/12 11:45	06/12/12 01:48	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*75 - 131*	*06/07/12 11:45*	*06/12/12 01:48*	*100*
Toluene-d8 (Surr)	*99*		*80 - 120*	*06/07/12 11:45*	*06/12/12 01:48*	*100*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*	*06/07/12 11:45*	*06/12/12 01:48*	*100*
Dibromofluoromethane	*103*		*74 - 123*	*06/07/12 11:45*	*06/12/12 01:48*	*100*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	27		1.7	0.84	mg/Kg	☼	06/07/12 11:45	06/11/12 16:30	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 130*	*06/07/12 11:45*	*06/11/12 16:30*	*100*
a,a,a-Trifluorotoluene	*98*		*70 - 130*	*06/07/12 11:45*	*06/11/12 16:30*	*100*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	560		96	17	mg/Kg	☼	06/11/12 07:08	06/13/12 15:56	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*105*		*32 - 110*	*06/11/12 07:08*	*06/13/12 15:56*	*10*
o-Terphenyl	*94*		*42 - 112*	*06/11/12 07:08*	*06/13/12 15:56*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607109
Date Collected: 06/07/12 12:10
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-9
Matrix: Solid
Percent Solids: 79.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.020		0.020	0.0058	mg/Kg	☼	06/07/12 12:10	06/12/12 02:13	100
Ethylbenzene	<0.020		0.020	0.0099	mg/Kg	☼	06/07/12 12:10	06/12/12 02:13	100
Toluene	<0.020		0.020	0.0090	mg/Kg	☼	06/07/12 12:10	06/12/12 02:13	100
m&p-Xylene	<0.039		0.039	0.013	mg/Kg	☼	06/07/12 12:10	06/12/12 02:13	100
o-Xylene	<0.020		0.020	0.0054	mg/Kg	☼	06/07/12 12:10	06/12/12 02:13	100
Xylenes, Total	<0.039		0.039	0.0054	mg/Kg	☼	06/07/12 12:10	06/12/12 02:13	100
1,2,4-Trimethylbenzene	**0.33**		0.16	0.017	mg/Kg	☼	06/07/12 12:10	06/12/12 02:13	100
1,3,5-Trimethylbenzene	<0.16		0.16	0.016	mg/Kg	☼	06/07/12 12:10	06/12/12 02:13	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*75 - 131*	*06/07/12 12:10*	*06/12/12 02:13*	*100*
Toluene-d8 (Surr)	*104*		*80 - 120*	*06/07/12 12:10*	*06/12/12 02:13*	*100*
4-Bromofluorobenzene (Surr)	*100*		*79 - 120*	*06/07/12 12:10*	*06/12/12 02:13*	*100*
Dibromofluoromethane	*105*		*74 - 123*	*06/07/12 12:10*	*06/12/12 02:13*	*100*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	**3.9**		0.79	0.39	mg/Kg	☼	06/07/12 12:10	06/11/12 17:06	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 130*	*06/07/12 12:10*	*06/11/12 17:06*	*50*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*06/07/12 12:10*	*06/11/12 17:06*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**79**		10	1.8	mg/Kg	☼	06/11/12 07:08	06/13/12 10:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*32 - 110*	*06/11/12 07:08*	*06/13/12 10:01*	*1*
o-Terphenyl	*82*		*42 - 112*	*06/11/12 07:08*	*06/13/12 10:01*	*1*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607110
Date Collected: 06/07/12 13:00
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-10
Matrix: Solid
Percent Solids: 69.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.057		0.023	0.0069	mg/Kg	☼	06/07/12 13:00	06/12/12 02:37	50
Ethylbenzene	0.12		0.023	0.012	mg/Kg	☼	06/07/12 13:00	06/12/12 02:37	50
Toluene	0.22		0.023	0.011	mg/Kg	☼	06/07/12 13:00	06/12/12 02:37	50
m&p-Xylene	0.61		0.047	0.015	mg/Kg	☼	06/07/12 13:00	06/12/12 02:37	50
o-Xylene	0.48		0.023	0.0064	mg/Kg	☼	06/07/12 13:00	06/12/12 02:37	50
Xylenes, Total	1.1		0.047	0.0064	mg/Kg	☼	06/07/12 13:00	06/12/12 02:37	50
1,2,4-Trimethylbenzene	0.57		0.19	0.020	mg/Kg	☼	06/07/12 13:00	06/12/12 02:37	50
1,3,5-Trimethylbenzene	0.27		0.19	0.019	mg/Kg	☼	06/07/12 13:00	06/12/12 02:37	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 131*	*06/07/12 13:00*	*06/12/12 02:37*	*50*
Toluene-d8 (Surr)	*107*		*80 - 120*	*06/07/12 13:00*	*06/12/12 02:37*	*50*
4-Bromofluorobenzene (Surr)	*95*		*79 - 120*	*06/07/12 13:00*	*06/12/12 02:37*	*50*
Dibromofluoromethane	*102*		*74 - 123*	*06/07/12 13:00*	*06/12/12 02:37*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	30		1.9	0.93	mg/Kg	☼	06/07/12 13:00	06/11/12 17:43	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 130*	*06/07/12 13:00*	*06/11/12 17:43*	*50*
a,a,a-Trifluorotoluene	*82*		*70 - 130*	*06/07/12 13:00*	*06/11/12 17:43*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	340		120	21	mg/Kg	☼	06/11/12 07:08	06/13/12 16:31	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*32 - 110*	*06/11/12 07:08*	*06/13/12 16:31*	*10*
o-Terphenyl	*105*		*42 - 112*	*06/11/12 07:08*	*06/13/12 16:31*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607111
Date Collected: 06/07/12 13:30
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-11
Matrix: Solid
Percent Solids: 79.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.011		0.011	0.0032	mg/Kg	☼	06/07/12 13:30	06/12/12 03:01	50
Ethylbenzene	<0.011		0.011	0.0054	mg/Kg	☼	06/07/12 13:30	06/12/12 03:01	50
Toluene	<0.011		0.011	0.0049	mg/Kg	☼	06/07/12 13:30	06/12/12 03:01	50
m&p-Xylene	<0.021		0.021	0.0069	mg/Kg	☼	06/07/12 13:30	06/12/12 03:01	50
o-Xylene	<0.011		0.011	0.0029	mg/Kg	☼	06/07/12 13:30	06/12/12 03:01	50
Xylenes, Total	<0.021		0.021	0.0029	mg/Kg	☼	06/07/12 13:30	06/12/12 03:01	50
1,2,4-Trimethylbenzene	<0.085		0.085	0.0090	mg/Kg	☼	06/07/12 13:30	06/12/12 03:01	50
1,3,5-Trimethylbenzene	<0.085		0.085	0.0088	mg/Kg	☼	06/07/12 13:30	06/12/12 03:01	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*75 - 131*	*06/07/12 13:30*	*06/12/12 03:01*	*50*
Toluene-d8 (Surr)	*103*		*80 - 120*	*06/07/12 13:30*	*06/12/12 03:01*	*50*
4-Bromofluorobenzene (Surr)	*94*		*79 - 120*	*06/07/12 13:30*	*06/12/12 03:01*	*50*
Dibromofluoromethane	*96*		*74 - 123*	*06/07/12 13:30*	*06/12/12 03:01*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	**7.9**		0.85	0.43	mg/Kg	☼	06/07/12 13:30	06/11/12 18:19	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*	*06/07/12 13:30*	*06/11/12 18:19*	*50*
a,a,a-Trifluorotoluene	*97*		*70 - 130*	*06/07/12 13:30*	*06/11/12 18:19*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**180**		10	1.8	mg/Kg	☼	06/11/12 07:08	06/13/12 11:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*104*		*32 - 110*	*06/11/12 07:08*	*06/13/12 11:12*	*1*
o-Terphenyl	*78*		*42 - 112*	*06/11/12 07:08*	*06/13/12 11:12*	*1*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607112
Date Collected: 06/07/12 14:15
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-12
Matrix: Solid
Percent Solids: 84.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.024		0.011	0.0032	mg/Kg	☼	06/07/12 14:15	06/12/12 03:25	50
Ethylbenzene	0.014		0.011	0.0054	mg/Kg	☼	06/07/12 14:15	06/12/12 03:25	50
Toluene	0.0085	J	0.011	0.0050	mg/Kg	☼	06/07/12 14:15	06/12/12 03:25	50
m&p-Xylene	0.027		0.022	0.0069	mg/Kg	☼	06/07/12 14:15	06/12/12 03:25	50
o-Xylene	0.017		0.011	0.0030	mg/Kg	☼	06/07/12 14:15	06/12/12 03:25	50
Xylenes, Total	0.043		0.022	0.0030	mg/Kg	☼	06/07/12 14:15	06/12/12 03:25	50
1,2,4-Trimethylbenzene	0.064	J	0.086	0.0091	mg/Kg	☼	06/07/12 14:15	06/12/12 03:25	50
1,3,5-Trimethylbenzene	0.033	J	0.086	0.0089	mg/Kg	☼	06/07/12 14:15	06/12/12 03:25	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 131*	*06/07/12 14:15*	*06/12/12 03:25*	*50*
Toluene-d8 (Surr)	*93*		*80 - 120*	*06/07/12 14:15*	*06/12/12 03:25*	*50*
4-Bromofluorobenzene (Surr)	*99*		*79 - 120*	*06/07/12 14:15*	*06/12/12 03:25*	*50*
Dibromofluoromethane	*104*		*74 - 123*	*06/07/12 14:15*	*06/12/12 03:25*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	0.81	J	0.86	0.43	mg/Kg	☼	06/07/12 14:15	06/11/12 18:55	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*70 - 130*	*06/07/12 14:15*	*06/11/12 18:55*	*50*
a,a,a-Trifluorotoluene	*94*		*70 - 130*	*06/07/12 14:15*	*06/11/12 18:55*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1600		97	18	mg/Kg	☼	06/11/12 07:08	06/13/12 17:07	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*137*	*X*	*32 - 110*	*06/11/12 07:08*	*06/13/12 17:07*	*10*
o-Terphenyl	*108*		*42 - 112*	*06/11/12 07:08*	*06/13/12 17:07*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607113
Date Collected: 06/07/12 14:15
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-13
Matrix: Solid
Percent Solids: 73.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.011		0.011	0.0033	mg/Kg	☼	06/07/12 14:15	06/12/12 03:49	50
Ethylbenzene	<0.011		0.011	0.0055	mg/Kg	☼	06/07/12 14:15	06/12/12 03:49	50
Toluene	<0.011		0.011	0.0050	mg/Kg	☼	06/07/12 14:15	06/12/12 03:49	50
m&p-Xylene	<0.022		0.022	0.0071	mg/Kg	☼	06/07/12 14:15	06/12/12 03:49	50
o-Xylene	<0.011		0.011	0.0030	mg/Kg	☼	06/07/12 14:15	06/12/12 03:49	50
Xylenes, Total	<0.022		0.022	0.0030	mg/Kg	☼	06/07/12 14:15	06/12/12 03:49	50
1,2,4-Trimethylbenzene	<0.088		0.088	0.0092	mg/Kg	☼	06/07/12 14:15	06/12/12 03:49	50
1,3,5-Trimethylbenzene	<0.088		0.088	0.0090	mg/Kg	☼	06/07/12 14:15	06/12/12 03:49	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*75 - 131*	*06/07/12 14:15*	*06/12/12 03:49*	*50*
Toluene-d8 (Surr)	*104*		*80 - 120*	*06/07/12 14:15*	*06/12/12 03:49*	*50*
4-Bromofluorobenzene (Surr)	*96*		*79 - 120*	*06/07/12 14:15*	*06/12/12 03:49*	*50*
Dibromofluoromethane	*96*		*74 - 123*	*06/07/12 14:15*	*06/12/12 03:49*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	<0.88		0.88	0.44	mg/Kg	☼	06/07/12 14:15	06/11/12 19:32	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*	*06/07/12 14:15*	*06/11/12 19:32*	*50*
a,a,a-Trifluorotoluene	*98*		*70 - 130*	*06/07/12 14:15*	*06/11/12 19:32*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**1800**		110	20	mg/Kg	☼	06/11/12 07:08	06/13/12 20:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*141*	*X*	*32 - 110*	*06/11/12 07:08*	*06/13/12 20:24*	*10*
o-Terphenyl	*104*		*42 - 112*	*06/11/12 07:08*	*06/13/12 20:24*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120608101
Date Collected: 06/07/12 10:15
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-14
Matrix: Solid
Percent Solids: 84.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0039		0.0039	0.00054	mg/Kg	☼	06/07/12 10:15	06/11/12 22:31	1
Ethylbenzene	<0.0039		0.0039	0.00079	mg/Kg	☼	06/07/12 10:15	06/11/12 22:31	1
Toluene	<0.0039		0.0039	0.00055	mg/Kg	☼	06/07/12 10:15	06/11/12 22:31	1
m&p-Xylene	<0.0078		0.0078	0.00096	mg/Kg	☼	06/07/12 10:15	06/11/12 22:31	1
o-Xylene	<0.0039		0.0039	0.00035	mg/Kg	☼	06/07/12 10:15	06/11/12 22:31	1
Xylenes, Total	<0.0078		0.0078	0.00035	mg/Kg	☼	06/07/12 10:15	06/11/12 22:31	1
1,2,4-Trimethylbenzene	<0.0039		0.0039	0.00045	mg/Kg	☼	06/07/12 10:15	06/11/12 22:31	1
1,3,5-Trimethylbenzene	<0.0039		0.0039	0.00051	mg/Kg	☼	06/07/12 10:15	06/11/12 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*74 - 123*	*06/07/12 10:15*	*06/11/12 22:31*	*1*
Toluene-d8 (Surr)	*93*		*72 - 122*	*06/07/12 10:15*	*06/11/12 22:31*	*1*
4-Bromofluorobenzene (Surr)	*87*		*76 - 120*	*06/07/12 10:15*	*06/11/12 22:31*	*1*
Dibromofluoromethane	*81*		*73 - 122*	*06/07/12 10:15*	*06/11/12 22:31*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	**1.0**		0.87	0.44	mg/Kg	☼	06/07/12 10:15	06/11/12 20:08	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 130*	*06/07/12 10:15*	*06/11/12 20:08*	*50*
a,a,a-Trifluorotoluene	*97*		*70 - 130*	*06/07/12 10:15*	*06/11/12 20:08*	*50*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**210**		93	17	mg/Kg	☼	06/11/12 07:08	06/13/12 12:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*32 - 110*	*06/11/12 07:08*	*06/13/12 12:58*	*10*
o-Terphenyl	*128*	*X*	*42 - 112*	*06/11/12 07:08*	*06/13/12 12:58*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120608102
Date Collected: 06/07/12 10:45
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-15
Matrix: Solid
Percent Solids: 82.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.2		0.11	0.033	mg/Kg	☼	06/07/12 10:45	06/12/12 04:13	500
Ethylbenzene	3.0		0.11	0.056	mg/Kg	☼	06/07/12 10:45	06/12/12 04:13	500
Toluene	<0.11		0.11	0.051	mg/Kg	☼	06/07/12 10:45	06/12/12 04:13	500
m&p-Xylene	<0.22		0.22	0.071	mg/Kg	☼	06/07/12 10:45	06/12/12 04:13	500
o-Xylene	0.39		0.11	0.030	mg/Kg	☼	06/07/12 10:45	06/12/12 04:13	500
Xylenes, Total	0.39		0.22	0.030	mg/Kg	☼	06/07/12 10:45	06/12/12 04:13	500
1,2,4-Trimethylbenzene	5.1		0.88	0.093	mg/Kg	☼	06/07/12 10:45	06/12/12 04:13	500
1,3,5-Trimethylbenzene	0.43	J	0.88	0.091	mg/Kg	☼	06/07/12 10:45	06/12/12 04:13	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 131*	*06/07/12 10:45*	*06/12/12 04:13*	*500*
Toluene-d8 (Surr)	*102*		*80 - 120*	*06/07/12 10:45*	*06/12/12 04:13*	*500*
4-Bromofluorobenzene (Surr)	*100*		*79 - 120*	*06/07/12 10:45*	*06/12/12 04:13*	*500*
Dibromofluoromethane	*105*		*74 - 123*	*06/07/12 10:45*	*06/12/12 04:13*	*500*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	31		8.8	4.4	mg/Kg	☼	06/07/12 10:45	06/11/12 20:44	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*	*06/07/12 10:45*	*06/11/12 20:44*	*500*
a,a,a-Trifluorotoluene	*100*		*70 - 130*	*06/07/12 10:45*	*06/11/12 20:44*	*500*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	5200		950	170	mg/Kg	☼	06/11/12 07:08	06/13/12 21:35	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/11/12 07:08*	*06/13/12 21:35*	*100*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/11/12 07:08*	*06/13/12 21:35*	*100*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120608103
Date Collected: 06/07/12 10:45
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-16
Matrix: Solid
Percent Solids: 77.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.3		0.046	0.014	mg/Kg	☼	06/07/12 10:45	06/12/12 04:37	200
Ethylbenzene	1.4		0.046	0.023	mg/Kg	☼	06/07/12 10:45	06/12/12 04:37	200
Toluene	<0.046		0.046	0.021	mg/Kg	☼	06/07/12 10:45	06/12/12 04:37	200
m&p-Xylene	<0.093		0.093	0.030	mg/Kg	☼	06/07/12 10:45	06/12/12 04:37	200
o-Xylene	0.12		0.046	0.013	mg/Kg	☼	06/07/12 10:45	06/12/12 04:37	200
Xylenes, Total	0.12		0.093	0.013	mg/Kg	☼	06/07/12 10:45	06/12/12 04:37	200
1,2,4-Trimethylbenzene	3.7		0.37	0.039	mg/Kg	☼	06/07/12 10:45	06/12/12 04:37	200
1,3,5-Trimethylbenzene	0.31	J	0.37	0.038	mg/Kg	☼	06/07/12 10:45	06/12/12 04:37	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 131*	*06/07/12 10:45*	*06/12/12 04:37*	*200*
Toluene-d8 (Surr)	*96*		*80 - 120*	*06/07/12 10:45*	*06/12/12 04:37*	*200*
4-Bromofluorobenzene (Surr)	*100*		*79 - 120*	*06/07/12 10:45*	*06/12/12 04:37*	*200*
Dibromofluoromethane	*102*		*74 - 123*	*06/07/12 10:45*	*06/12/12 04:37*	*200*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	28		3.7	1.9	mg/Kg	☼	06/07/12 10:45	06/11/12 22:35	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*	*06/07/12 10:45*	*06/11/12 22:35*	*200*
a,a,a-Trifluorotoluene	*97*		*70 - 130*	*06/07/12 10:45*	*06/11/12 22:35*	*200*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1900		100	19	mg/Kg	☼	06/11/12 07:08	06/13/12 14:09	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*103*		*32 - 110*	*06/11/12 07:08*	*06/13/12 14:09*	*10*
o-Terphenyl	*765*	*X*	*42 - 112*	*06/11/12 07:08*	*06/13/12 14:09*	*10*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120608104
Date Collected: 06/07/12 10:45
Date Received: 06/08/12 14:20

Lab Sample ID: 500-47199-17
Matrix: Solid
Percent Solids: 80.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.5		0.11	0.034	mg/Kg	☼	06/07/12 10:45	06/12/12 05:01	500
Ethylbenzene	4.6		0.11	0.058	mg/Kg	☼	06/07/12 10:45	06/12/12 05:01	500
Toluene	<0.11		0.11	0.053	mg/Kg	☼	06/07/12 10:45	06/12/12 05:01	500
m&p-Xylene	<0.23		0.23	0.074	mg/Kg	☼	06/07/12 10:45	06/12/12 05:01	500
o-Xylene	0.69		0.11	0.031	mg/Kg	☼	06/07/12 10:45	06/12/12 05:01	500
Xylenes, Total	0.69		0.23	0.031	mg/Kg	☼	06/07/12 10:45	06/12/12 05:01	500
1,2,4-Trimethylbenzene	5.6		0.92	0.097	mg/Kg	☼	06/07/12 10:45	06/12/12 05:01	500
1,3,5-Trimethylbenzene	0.66	J	0.92	0.094	mg/Kg	☼	06/07/12 10:45	06/12/12 05:01	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*75 - 131*	*06/07/12 10:45*	*06/12/12 05:01*	*500*
Toluene-d8 (Surr)	*105*		*80 - 120*	*06/07/12 10:45*	*06/12/12 05:01*	*500*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*	*06/07/12 10:45*	*06/12/12 05:01*	*500*
Dibromofluoromethane	*107*		*74 - 123*	*06/07/12 10:45*	*06/12/12 05:01*	*500*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	44		9.2	4.6	mg/Kg	☼	06/07/12 10:45	06/11/12 23:47	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*70 - 130*	*06/07/12 10:45*	*06/11/12 23:47*	*500*
a,a,a-Trifluorotoluene	*93*		*70 - 130*	*06/07/12 10:45*	*06/11/12 23:47*	*500*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	3300		980	180	mg/Kg	☼	06/11/12 07:08	06/13/12 22:10	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*06/11/12 07:08*	*06/13/12 22:10*	*100*
o-Terphenyl	*0*	*D*	*42 - 112*	*06/11/12 07:08*	*06/13/12 22:10*	*100*

Qualifiers

GC/MS 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 VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside 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
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)

QC Association Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

GC/MS VOA

Prep Batch: 152318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-1	120607101	Total/NA	Solid	5035	
500-47199-1 MS	120607101	Total/NA	Solid	5035	
500-47199-1 MSD	120607101	Total/NA	Solid	5035	
500-47199-2	120607102	Total/NA	Solid	5035	
500-47199-3	120607103	Total/NA	Solid	5035	
500-47199-4	120607104	Total/NA	Solid	5035	
500-47199-5	120607105	Total/NA	Solid	5035	
500-47199-6	120607106	Total/NA	Solid	5035	
500-47199-7	120607107	Total/NA	Solid	5035	
500-47199-8	120607108	Total/NA	Solid	5035	
500-47199-9	120607109	Total/NA	Solid	5035	
500-47199-10	120607110	Total/NA	Solid	5035	
500-47199-11	120607111	Total/NA	Solid	5035	
500-47199-12	120607112	Total/NA	Solid	5035	
500-47199-13	120607113	Total/NA	Solid	5035	
500-47199-15	120608102	Total/NA	Solid	5035	
500-47199-16	120608103	Total/NA	Solid	5035	
500-47199-17	120608104	Total/NA	Solid	5035	

Prep Batch: 152363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-14	120608101	Total/NA	Solid	5035	

Analysis Batch: 152427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-1	120607101	Total/NA	Solid	8260B	152318
500-47199-1 MS	120607101	Total/NA	Solid	8260B	152318
500-47199-1 MSD	120607101	Total/NA	Solid	8260B	152318
500-47199-2	120607102	Total/NA	Solid	8260B	152318
500-47199-3	120607103	Total/NA	Solid	8260B	152318
500-47199-4	120607104	Total/NA	Solid	8260B	152318
500-47199-5	120607105	Total/NA	Solid	8260B	152318
500-47199-6	120607106	Total/NA	Solid	8260B	152318
500-47199-7	120607107	Total/NA	Solid	8260B	152318
500-47199-8	120607108	Total/NA	Solid	8260B	152318
500-47199-9	120607109	Total/NA	Solid	8260B	152318
500-47199-10	120607110	Total/NA	Solid	8260B	152318
500-47199-11	120607111	Total/NA	Solid	8260B	152318
500-47199-12	120607112	Total/NA	Solid	8260B	152318
500-47199-13	120607113	Total/NA	Solid	8260B	152318
500-47199-15	120608102	Total/NA	Solid	8260B	152318
500-47199-16	120608103	Total/NA	Solid	8260B	152318
500-47199-17	120608104	Total/NA	Solid	8260B	152318
LCS 500-152427/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 500-152427/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 152471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-14	120608101	Total/NA	Solid	8260B	152363
LCS 500-152471/5	Lab Control Sample	Total/NA	Solid	8260B	
MB 500-152471/4	Method Blank	Total/NA	Solid	8260B	

QC Association Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

GC VOA

Prep Batch: 152318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-1	120607101	Total/NA	Solid	5035	
500-47199-1 MS	120607101	Total/NA	Solid	5035	
500-47199-1 MSD	120607101	Total/NA	Solid	5035	
500-47199-2	120607102	Total/NA	Solid	5035	
500-47199-3	120607103	Total/NA	Solid	5035	
500-47199-4	120607104	Total/NA	Solid	5035	
500-47199-5	120607105	Total/NA	Solid	5035	
500-47199-6	120607106	Total/NA	Solid	5035	
500-47199-7	120607107	Total/NA	Solid	5035	
500-47199-8	120607108	Total/NA	Solid	5035	
500-47199-9	120607109	Total/NA	Solid	5035	
500-47199-10	120607110	Total/NA	Solid	5035	
500-47199-11	120607111	Total/NA	Solid	5035	
500-47199-12	120607112	Total/NA	Solid	5035	
500-47199-13	120607113	Total/NA	Solid	5035	
500-47199-14	120608101	Total/NA	Solid	5035	
500-47199-15	120608102	Total/NA	Solid	5035	
500-47199-16	120608103	Total/NA	Solid	5035	
500-47199-17	120608104	Total/NA	Solid	5035	

Analysis Batch: 152336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-1	120607101	Total/NA	Solid	8015B	152318
500-47199-1 MS	120607101	Total/NA	Solid	8015B	152318
500-47199-1 MSD	120607101	Total/NA	Solid	8015B	152318
500-47199-2	120607102	Total/NA	Solid	8015B	152318
500-47199-3	120607103	Total/NA	Solid	8015B	152318
500-47199-4	120607104	Total/NA	Solid	8015B	152318
500-47199-5	120607105	Total/NA	Solid	8015B	152318
500-47199-6	120607106	Total/NA	Solid	8015B	152318
500-47199-7	120607107	Total/NA	Solid	8015B	152318
500-47199-8	120607108	Total/NA	Solid	8015B	152318
500-47199-9	120607109	Total/NA	Solid	8015B	152318
500-47199-10	120607110	Total/NA	Solid	8015B	152318
500-47199-11	120607111	Total/NA	Solid	8015B	152318
500-47199-12	120607112	Total/NA	Solid	8015B	152318
500-47199-13	120607113	Total/NA	Solid	8015B	152318
500-47199-14	120608101	Total/NA	Solid	8015B	152318
500-47199-15	120608102	Total/NA	Solid	8015B	152318
500-47199-16	120608103	Total/NA	Solid	8015B	152318
500-47199-17	120608104	Total/NA	Solid	8015B	152318
LCS 500-152336/4	Lab Control Sample	Total/NA	Solid	8015B	
MB 500-152336/3	Method Blank	Total/NA	Solid	8015B	

GC Semi VOA

Prep Batch: 152342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-1	120607101	Total/NA	Solid	3541	
500-47199-1 MS	120607101	Total/NA	Solid	3541	
500-47199-1 MSD	120607101	Total/NA	Solid	3541	
500-47199-2	120607102	Total/NA	Solid	3541	

GC Semi VOA (Continued)

Prep Batch: 152342 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-3	120607103	Total/NA	Solid	3541	
500-47199-4	120607104	Total/NA	Solid	3541	
500-47199-5	120607105	Total/NA	Solid	3541	
500-47199-6	120607106	Total/NA	Solid	3541	
500-47199-7	120607107	Total/NA	Solid	3541	
500-47199-8	120607108	Total/NA	Solid	3541	
500-47199-9	120607109	Total/NA	Solid	3541	
500-47199-10	120607110	Total/NA	Solid	3541	
500-47199-11	120607111	Total/NA	Solid	3541	
500-47199-12	120607112	Total/NA	Solid	3541	
500-47199-13	120607113	Total/NA	Solid	3541	
500-47199-14	120608101	Total/NA	Solid	3541	
500-47199-15	120608102	Total/NA	Solid	3541	
500-47199-16	120608103	Total/NA	Solid	3541	
500-47199-17	120608104	Total/NA	Solid	3541	
LCS 500-152342/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-152342/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 152491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-1	120607101	Total/NA	Solid	8015B	152342
500-47199-1 MS	120607101	Total/NA	Solid	8015B	152342
500-47199-1 MSD	120607101	Total/NA	Solid	8015B	152342
500-47199-2	120607102	Total/NA	Solid	8015B	152342
500-47199-3	120607103	Total/NA	Solid	8015B	152342
500-47199-4	120607104	Total/NA	Solid	8015B	152342
500-47199-5	120607105	Total/NA	Solid	8015B	152342
500-47199-6	120607106	Total/NA	Solid	8015B	152342
500-47199-7	120607107	Total/NA	Solid	8015B	152342
LCS 500-152342/2-A	Lab Control Sample	Total/NA	Solid	8015B	152342
MB 500-152342/1-A	Method Blank	Total/NA	Solid	8015B	152342

Analysis Batch: 152493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-8	120607108	Total/NA	Solid	8015B	152342
500-47199-9	120607109	Total/NA	Solid	8015B	152342
500-47199-10	120607110	Total/NA	Solid	8015B	152342
500-47199-11	120607111	Total/NA	Solid	8015B	152342
500-47199-12	120607112	Total/NA	Solid	8015B	152342
500-47199-13	120607113	Total/NA	Solid	8015B	152342
500-47199-14	120608101	Total/NA	Solid	8015B	152342
500-47199-15	120608102	Total/NA	Solid	8015B	152342
500-47199-16	120608103	Total/NA	Solid	8015B	152342
500-47199-17	120608104	Total/NA	Solid	8015B	152342

General Chemistry

Analysis Batch: 152275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-1	120607101	Total/NA	Solid	Moisture	
500-47199-1 DU	120607101	Total/NA	Solid	Moisture	
500-47199-1 MS	120607101	Total/NA	Solid	Moisture	

QC Association Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

General Chemistry (Continued)

Analysis Batch: 152275 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-47199-1 MSD	120607101	Total/NA	Solid	Moisture	
500-47199-2	120607102	Total/NA	Solid	Moisture	
500-47199-3	120607103	Total/NA	Solid	Moisture	
500-47199-4	120607104	Total/NA	Solid	Moisture	
500-47199-5	120607105	Total/NA	Solid	Moisture	
500-47199-6	120607106	Total/NA	Solid	Moisture	
500-47199-7	120607107	Total/NA	Solid	Moisture	
500-47199-8	120607108	Total/NA	Solid	Moisture	
500-47199-9	120607109	Total/NA	Solid	Moisture	
500-47199-10	120607110	Total/NA	Solid	Moisture	
500-47199-11	120607111	Total/NA	Solid	Moisture	
500-47199-12	120607112	Total/NA	Solid	Moisture	
500-47199-13	120607113	Total/NA	Solid	Moisture	
500-47199-14	120608101	Total/NA	Solid	Moisture	
500-47199-15	120608102	Total/NA	Solid	Moisture	
500-47199-16	120608103	Total/NA	Solid	Moisture	
500-47199-17	120608104	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(75-131)	(80-120)	(79-120)	(74-123)
500-47199-1	120607101	113	96	98	98
500-47199-1 MS	120607101	112	97	98	97
500-47199-1 MSD	120607101	113	100	96	105
500-47199-2	120607102	115	98	95	99
500-47199-3	120607103	114	98	96	104
500-47199-4	120607104	118	100	99	99
500-47199-5	120607105	120	97	99	103
500-47199-6	120607106	116	97	100	98
500-47199-7	120607107	117	94	101	100
500-47199-8	120607108	115	99	98	103
500-47199-9	120607109	116	104	100	105
500-47199-10	120607110	118	107	95	102
500-47199-11	120607111	112	103	94	96
500-47199-12	120607112	118	93	99	104
500-47199-13	120607113	112	104	96	96
500-47199-15	120608102	118	102	100	105
500-47199-16	120608103	118	96	100	102
500-47199-17	120608104	116	105	98	107
LCS 500-152427/3	Lab Control Sample	112	97	96	102
MB 500-152427/4	Method Blank	116	95	101	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(74-123)	(72-122)	(76-120)	(73-122)
500-47199-14	120608101	97	93	87	81
LCS 500-152471/5	Lab Control Sample	103	96	92	80
MB 500-152471/4	Method Blank	102	92	88	80

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	TFT1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
500-47199-1	120607101	111	99
500-47199-1 MS	120607101	102	100

Surrogate Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	TFT1 (70-130)
500-47199-1 MSD	120607101	106	91
500-47199-2	120607102	100	101
500-47199-3	120607103	99	100
500-47199-4	120607104	98	99
500-47199-5	120607105	109	98
500-47199-6	120607106	104	87
500-47199-7	120607107	115	100
500-47199-8	120607108	99	98
500-47199-9	120607109	101	99
500-47199-10	120607110	101	82
500-47199-11	120607111	100	97
500-47199-12	120607112	95	94
500-47199-13	120607113	97	98
500-47199-14	120608101	96	97
500-47199-15	120608102	100	100
500-47199-16	120608103	100	97
500-47199-17	120608104	95	93
LCS 500-152336/4	Lab Control Sample	102	104
MB 500-152336/3	Method Blank	99	102

Surrogate Legend

BFB = 4-Bromofluorobenzene

TFT = a,a,a-Trifluorotoluene

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	FBP1 (32-110)	OTPH1 (42-112)
500-47199-1	120607101	0 D	0 D
500-47199-1 MS	120607101	0 D	0 D
500-47199-1 MSD	120607101	0 D	0 D
500-47199-2	120607102	0 D	0 D
500-47199-3	120607103	0 D	0 D
500-47199-4	120607104	0 D	0 D
500-47199-5	120607105	73	138 X
500-47199-6	120607106	67	111
500-47199-7	120607107	86	99
500-47199-8	120607108	105	94
500-47199-9	120607109	88	82
500-47199-10	120607110	84	105
500-47199-11	120607111	104	78
500-47199-12	120607112	137 X	108
500-47199-13	120607113	141 X	104
500-47199-14	120608101	88	128 X
500-47199-15	120608102	0 D	0 D
500-47199-16	120608103	103	765 X
500-47199-17	120608104	0 D	0 D
LCS 500-152342/2-A	Lab Control Sample	88	87
MB 500-152342/1-A	Method Blank	95	90

Surrogate Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Surrogate Legend

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

QC Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: 500-47199-1 MS
Matrix: Solid
Analysis Batch: 152427

Client Sample ID: 120607101
Prep Type: Total/NA
Prep Batch: 152318

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.16		2.36	2.36		mg/Kg	☼	93	74 - 115
Ethylbenzene	0.18		2.36	2.32		mg/Kg	☼	90	79 - 115
Toluene	0.11		2.36	2.40		mg/Kg	☼	97	80 - 120
m&p-Xylene	0.15		4.72	4.79		mg/Kg	☼	98	78 - 120
o-Xylene	0.11		2.36	2.38		mg/Kg	☼	96	78 - 120
Xylenes, Total	0.26		7.08	7.17		mg/Kg	☼	98	78 - 120
1,2,4-Trimethylbenzene	0.15		2.36	2.68		mg/Kg	☼	107	80 - 120
1,3,5-Trimethylbenzene	0.071	J	2.36	2.69		mg/Kg	☼	111	83 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*112*		*75 - 131*
Toluene-d8 (Surr)	*97*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*
Dibromofluoromethane	*97*		*74 - 123*

Lab Sample ID: 500-47199-1 MSD
Matrix: Solid
Analysis Batch: 152427

Client Sample ID: 120607101
Prep Type: Total/NA
Prep Batch: 152318

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.16		2.21	2.25		mg/Kg	☼	95	74 - 115	4	30
Ethylbenzene	0.18		2.21	2.18		mg/Kg	☼	90	79 - 115	6	30
Toluene	0.11		2.21	2.31		mg/Kg	☼	99	80 - 120	4	30
m&p-Xylene	0.15		4.42	4.40		mg/Kg	☼	96	78 - 120	8	30
o-Xylene	0.11		2.21	2.24		mg/Kg	☼	96	78 - 120	6	30
Xylenes, Total	0.26		6.64	6.65		mg/Kg	☼	96	78 - 120	8	30
1,2,4-Trimethylbenzene	0.15		2.21	2.50		mg/Kg	☼	106	80 - 120	7	30
1,3,5-Trimethylbenzene	0.071	J	2.21	2.48		mg/Kg	☼	109	83 - 120	8	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*113*		*75 - 131*
Toluene-d8 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*79 - 120*
Dibromofluoromethane	*105*		*74 - 123*

Lab Sample ID: MB 500-152427/4
Matrix: Solid
Analysis Batch: 152427

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00025		0.00025	0.000074	mg/Kg			06/11/12 21:47	1
Ethylbenzene	<0.00025		0.00025	0.00013	mg/Kg			06/11/12 21:47	1
Toluene	<0.00025		0.00025	0.00012	mg/Kg			06/11/12 21:47	1
m&p-Xylene	<0.00050		0.00050	0.00016	mg/Kg			06/11/12 21:47	1
o-Xylene	<0.00025		0.00025	0.000068	mg/Kg			06/11/12 21:47	1
Xylenes, Total	<0.00050		0.00050	0.000068	mg/Kg			06/11/12 21:47	1
1,2,4-Trimethylbenzene	<0.0020		0.0020	0.00021	mg/Kg			06/11/12 21:47	1
1,3,5-Trimethylbenzene	<0.0020		0.0020	0.00021	mg/Kg			06/11/12 21:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-152427/4
Matrix: Solid
Analysis Batch: 152427

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		75 - 131		06/11/12 21:47	1
Toluene-d8 (Surr)	95		80 - 120		06/11/12 21:47	1
4-Bromofluorobenzene (Surr)	101		79 - 120		06/11/12 21:47	1
Dibromofluoromethane	98		74 - 123		06/11/12 21:47	1

Lab Sample ID: LCS 500-152427/3
Matrix: Solid
Analysis Batch: 152427

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0490		mg/Kg		98	74 - 115
Ethylbenzene	0.0500	0.0477		mg/Kg		95	79 - 115
Toluene	0.0500	0.0485		mg/Kg		97	80 - 120
m&p-Xylene	0.100	0.101		mg/Kg		101	78 - 120
o-Xylene	0.0500	0.0520		mg/Kg		104	78 - 120
Xylenes, Total	0.150	0.153		mg/Kg		102	78 - 120
1,2,4-Trimethylbenzene	0.0500	0.0546		mg/Kg		109	80 - 120
1,3,5-Trimethylbenzene	0.0500	0.0561		mg/Kg		112	83 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		75 - 131
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	96		79 - 120
Dibromofluoromethane	102		74 - 123

Lab Sample ID: MB 500-152471/4
Matrix: Solid
Analysis Batch: 152471

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0050		0.0050	0.00069	mg/Kg			06/11/12 21:46	1
Ethylbenzene	<0.0050		0.0050	0.0010	mg/Kg			06/11/12 21:46	1
Toluene	<0.0050		0.0050	0.00070	mg/Kg			06/11/12 21:46	1
m&p-Xylene	<0.010		0.010	0.0012	mg/Kg			06/11/12 21:46	1
o-Xylene	<0.0050		0.0050	0.00045	mg/Kg			06/11/12 21:46	1
Xylenes, Total	<0.010		0.010	0.00045	mg/Kg			06/11/12 21:46	1
1,2,4-Trimethylbenzene	<0.0050		0.0050	0.00058	mg/Kg			06/11/12 21:46	1
1,3,5-Trimethylbenzene	<0.0050		0.0050	0.00066	mg/Kg			06/11/12 21:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		74 - 123		06/11/12 21:46	1
Toluene-d8 (Surr)	92		72 - 122		06/11/12 21:46	1
4-Bromofluorobenzene (Surr)	88		76 - 120		06/11/12 21:46	1
Dibromofluoromethane	80		73 - 122		06/11/12 21:46	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-152471/5
Matrix: Solid
Analysis Batch: 152471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0565		mg/Kg		113	70 - 116
Ethylbenzene	0.0500	0.0522		mg/Kg		104	75 - 115
Toluene	0.0500	0.0531		mg/Kg		106	75 - 112
m&p-Xylene	0.100	0.105		mg/Kg		105	73 - 118
o-Xylene	0.0500	0.0532		mg/Kg		106	74 - 116
Xylenes, Total	0.150	0.158		mg/Kg		105	73 - 118
1,2,4-Trimethylbenzene	0.0500	0.0504		mg/Kg		101	80 - 120
1,3,5-Trimethylbenzene	0.0500	0.0511		mg/Kg		102	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*74 - 123*
Toluene-d8 (Surr)	*96*		*72 - 122*
4-Bromofluorobenzene (Surr)	*92*		*76 - 120*
Dibromofluoromethane	*80*		*73 - 122*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: 500-47199-1 MS
Matrix: Solid
Analysis Batch: 152336

Client Sample ID: 120607101
Prep Type: Total/NA
Prep Batch: 152318

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C9)	14		18.9	24.8	F	mg/Kg	☼	56	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*70 - 130*
a,a,a-Trifluorotoluene	*100*		*70 - 130*

Lab Sample ID: 500-47199-1 MSD
Matrix: Solid
Analysis Batch: 152336

Client Sample ID: 120607101
Prep Type: Total/NA
Prep Batch: 152318

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (C6-C9)	14		17.7	32.5		mg/Kg	☼	103	70 - 130	27	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*70 - 130*
a,a,a-Trifluorotoluene	*91*		*70 - 130*

Lab Sample ID: MB 500-152336/3
Matrix: Solid
Analysis Batch: 152336

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	<1.0		1.0	0.50	mg/Kg			06/11/12 09:14	50

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: MB 500-152336/3
Matrix: Solid
Analysis Batch: 152336

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		70 - 130		06/11/12 09:14	50
a,a,a-Trifluorotoluene	102		70 - 130		06/11/12 09:14	50

Lab Sample ID: LCS 500-152336/4
Matrix: Solid
Analysis Batch: 152336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C9)	20.0	19.3		mg/Kg		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	102		70 - 130
a,a,a-Trifluorotoluene	104		70 - 130

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 500-152342/1-A
Matrix: Solid
Analysis Batch: 152491

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 152342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	<8.3		8.3	1.5	mg/Kg		06/11/12 07:08	06/13/12 08:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	95		32 - 110	06/11/12 07:08	06/13/12 08:46	1
o-Terphenyl	90		42 - 112	06/11/12 07:08	06/13/12 08:46	1

Lab Sample ID: LCS 500-152342/2-A
Matrix: Solid
Analysis Batch: 152491

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 152342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.7	56.7		mg/Kg		85	56 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	88		32 - 110
o-Terphenyl	87		42 - 112

Lab Sample ID: 500-47199-1 MS
Matrix: Solid
Analysis Batch: 152491

Client Sample ID: 120607101
Prep Type: Total/NA
Prep Batch: 152342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2200		75.7	<470	D	mg/Kg	☼	0	56 - 122

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 500-47199-1 MS
Matrix: Solid
Analysis Batch: 152491

Client Sample ID: 120607101
Prep Type: Total/NA
Prep Batch: 152342

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	0	D	32 - 110
o-Terphenyl	0	D	42 - 112

Lab Sample ID: 500-47199-1 MSD
Matrix: Solid
Analysis Batch: 152491

Client Sample ID: 120607101
Prep Type: Total/NA
Prep Batch: 152342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2200		77.0	<480	D	mg/Kg	☼	0	56 - 122	NC	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	0	D	32 - 110
o-Terphenyl	0	D	42 - 112

Lab Chronicle

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607101

Lab Sample ID: 500-47199-1
Date Collected: 06/07/12 08:50
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 08:50	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/11/12 22:12	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 08:50	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152336	06/11/12 10:27	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		50	152491	06/13/12 10:01	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607102

Lab Sample ID: 500-47199-2
Date Collected: 06/07/12 09:30
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 76.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 09:30	WRE	TAL CHI
Total/NA	Analysis	8260B		250	152427	06/11/12 23:24	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 09:30	WRE	TAL CHI
Total/NA	Analysis	8015B		200	152336	06/11/12 12:16	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		100	152491	06/13/12 15:56	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607103

Lab Sample ID: 500-47199-3
Date Collected: 06/07/12 09:35
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 73.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 09:35	WRE	TAL CHI
Total/NA	Analysis	8260B		200	152427	06/11/12 23:48	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 09:35	WRE	TAL CHI
Total/NA	Analysis	8015B		100	152336	06/11/12 12:52	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		500	152491	06/13/12 19:48	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607104

Lab Sample ID: 500-47199-4
Date Collected: 06/07/12 10:00
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 10:00	WRE	TAL CHI
Total/NA	Analysis	8260B		100	152427	06/12/12 00:12	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 10:00	WRE	TAL CHI
Total/NA	Analysis	8015B		200	152336	06/11/12 13:28	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI

Lab Chronicle

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607104

Lab Sample ID: 500-47199-4
Date Collected: 06/07/12 10:00
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		100	152491	06/13/12 20:24	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607105

Lab Sample ID: 500-47199-5
Date Collected: 06/07/12 10:25
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 10:25	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 00:36	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 10:25	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152336	06/11/12 14:05	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		10	152491	06/13/12 20:59	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607106

Lab Sample ID: 500-47199-6
Date Collected: 06/07/12 11:00
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 11:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 01:00	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 11:00	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152336	06/11/12 14:41	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		10	152491	06/13/12 22:10	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607107

Lab Sample ID: 500-47199-7
Date Collected: 06/07/12 11:45
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 11:45	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 01:24	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 11:45	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152336	06/11/12 15:54	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		1	152491	06/13/12 14:45	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607108

Lab Sample ID: 500-47199-8
Date Collected: 06/07/12 11:45
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 11:45	WRE	TAL CHI
Total/NA	Analysis	8260B		100	152427	06/12/12 01:48	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 11:45	WRE	TAL CHI
Total/NA	Analysis	8015B		100	152336	06/11/12 16:30	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		10	152493	06/13/12 15:56	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607109

Lab Sample ID: 500-47199-9
Date Collected: 06/07/12 12:10
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 12:10	WRE	TAL CHI
Total/NA	Analysis	8260B		100	152427	06/12/12 02:13	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 12:10	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152336	06/11/12 17:06	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		1	152493	06/13/12 10:01	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607110

Lab Sample ID: 500-47199-10
Date Collected: 06/07/12 13:00
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 69.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 13:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 02:37	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 13:00	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152336	06/11/12 17:43	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		10	152493	06/13/12 16:31	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607111

Lab Sample ID: 500-47199-11
Date Collected: 06/07/12 13:30
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 13:30	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 03:01	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 13:30	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152336	06/11/12 18:19	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI

Lab Chronicle

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120607111

Lab Sample ID: 500-47199-11
Date Collected: 06/07/12 13:30
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	152493	06/13/12 11:12	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607112

Lab Sample ID: 500-47199-12
Date Collected: 06/07/12 14:15
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 14:15	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 03:25	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 14:15	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152336	06/11/12 18:55	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		10	152493	06/13/12 17:07	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120607113

Lab Sample ID: 500-47199-13
Date Collected: 06/07/12 14:15
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 73.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 14:15	WRE	TAL CHI
Total/NA	Analysis	8260B		50	152427	06/12/12 03:49	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 14:15	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152336	06/11/12 19:32	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		10	152493	06/13/12 20:24	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120608101

Lab Sample ID: 500-47199-14
Date Collected: 06/07/12 10:15
Matrix: Solid
Date Received: 06/08/12 14:20
Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152363	06/07/12 10:15	WRE	TAL CHI
Total/NA	Analysis	8260B		1	152471	06/11/12 22:31	BBS	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 10:15	WRE	TAL CHI
Total/NA	Analysis	8015B		50	152336	06/11/12 20:08	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		10	152493	06/13/12 12:58	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Lab Chronicle

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Client Sample ID: 120608102

Lab Sample ID: 500-47199-15

Date Collected: 06/07/12 10:45
Date Received: 06/08/12 14:20

Matrix: Solid
Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 10:45	WRE	TAL CHI
Total/NA	Analysis	8260B		500	152427	06/12/12 04:13	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 10:45	WRE	TAL CHI
Total/NA	Analysis	8015B		500	152336	06/11/12 20:44	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		100	152493	06/13/12 21:35	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120608103

Lab Sample ID: 500-47199-16

Date Collected: 06/07/12 10:45
Date Received: 06/08/12 14:20

Matrix: Solid
Percent Solids: 77.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 10:45	WRE	TAL CHI
Total/NA	Analysis	8260B		200	152427	06/12/12 04:37	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 10:45	WRE	TAL CHI
Total/NA	Analysis	8015B		200	152336	06/11/12 22:35	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		10	152493	06/13/12 14:09	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Client Sample ID: 120608104

Lab Sample ID: 500-47199-17

Date Collected: 06/07/12 10:45
Date Received: 06/08/12 14:20

Matrix: Solid
Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			152318	06/07/12 10:45	WRE	TAL CHI
Total/NA	Analysis	8260B		500	152427	06/12/12 05:01	BDA	TAL CHI
Total/NA	Prep	5035			152318	06/07/12 10:45	WRE	TAL CHI
Total/NA	Analysis	8015B		500	152336	06/11/12 23:47	WRE	TAL CHI
Total/NA	Prep	3541			152342	06/11/12 07:08	STW	TAL CHI
Total/NA	Analysis	8015B		100	152493	06/13/12 22:10	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	152275	06/09/12 10:30	CMV	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station - Parcel L

TestAmerica Job ID: 500-47199-1

Laboratory	Authority	Program	EPA Region	Certification ID
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.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact: Tim Norris
Company: NRT
Address: 4161 W. 36th St.
Address: Chicago, IL
Phone: 312-233-6399
Fax:
E-Mail: tnorris@naturalrt.com

(optional)
Bill To
Contact: Accounts Payable
Company: IBS, LLC
Address: P.O. Box 19800
Address: Green Bay, WI 54307
Phone: 920-433-2929
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-47199
Chain of Custody Number:
Page 1 of 2
Temperature °C of Cooler: (4.2) (4.5)

Client: NRT
Client Project #:
Project Name: Parcel L - Crawford
Project Location/State: Chicago, IL
Lab Project #:
Sampler: RJH
Lab PM:

Preservative
Parameter

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	TPH	PVOCs								Comments
1	X	120607101	6/7/12	850	21	S										
2		120607102		930	7	S										
3		120607103		935	7	S										
4		120607104		1000	7	S										
5		120607105		1025	7	S										
6		120607106		1100	7	S										
7		120607107		1145	7	S										
8		120607108		1145	7	S										
9		120607109		1210	7	S										
10		120607110		1300	7	S										

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days 3 days Other
Requested Due Date

Sample Disposal
[ ] Return to Client [X] Disposal by Lab [ ] Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	NRT	06/08/12	1420	[signature]	TA	6-8-12	1920
[signature]	TA	6-8-12	1751	[signature]	TA	6/9/12	0700

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW Wastewater
W Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL 4124-600 (1209)
[illegible]/2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Lab Job #: 500-47199

Chain of Custody Number:

Page 2 of 2

Temperature °C of Cooler:

Report To (optional)
Contact: Tim Norris
Company: NRT
Address: 4161 W. 36th St.
Address: Chicago, IL
Phone: 312-203-6399
Fax:
E-Mail: tnorris@naturalrt.com

Bill To (optional)
Contact: Accounts Payable
Company: IBS, LLC
Address: P.O. Box 19800
Address: Green Bay, WI 54307
Phone: 920-433-2929
Fax:
PO#/Reference#

Client: NRT
Client Project #:
Project Name: Parcel L-Crawford
Project Location/State: Chicago, IL
Lab Project #:
Sampler: RJH
Lab PM:

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	TPH	PVOCs	Comments
11		120607111	6/7/12	1330	7	S	✓	✓	
12		120607112	6/7/12	1415	7	S	✓	✓	
13		120607113	6/7/12	1415	7	S	✓	✓	
14		120608101	6/8/12	1015	7	S	✓	✓	
15		120608102	6/8/12	1045	7	S	✓	✓	
16		120608103	6/8/12	1045	7	S	✓	✓	
17		120608104	6/8/12	1045	7	S	✓	✓	
		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~				~~[illegible]~~

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days X Other 3-day
Requested Due Date

Sample Disposal
☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	NRT	06/08/12	1420	[signature]	TA	6-8-12	1420
[signature]	TA	6-8-12	1757	[signature]	TA	6/9/12	0700

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-2124-500 (1209)

6/14/2012

Login Sample Receipt Checklist

Client: Natural Resource Technology, Inc.

Job Number: 500-47199-1

Login Number: 47199
List Number: 1
Creator: Lunt, Jeff T

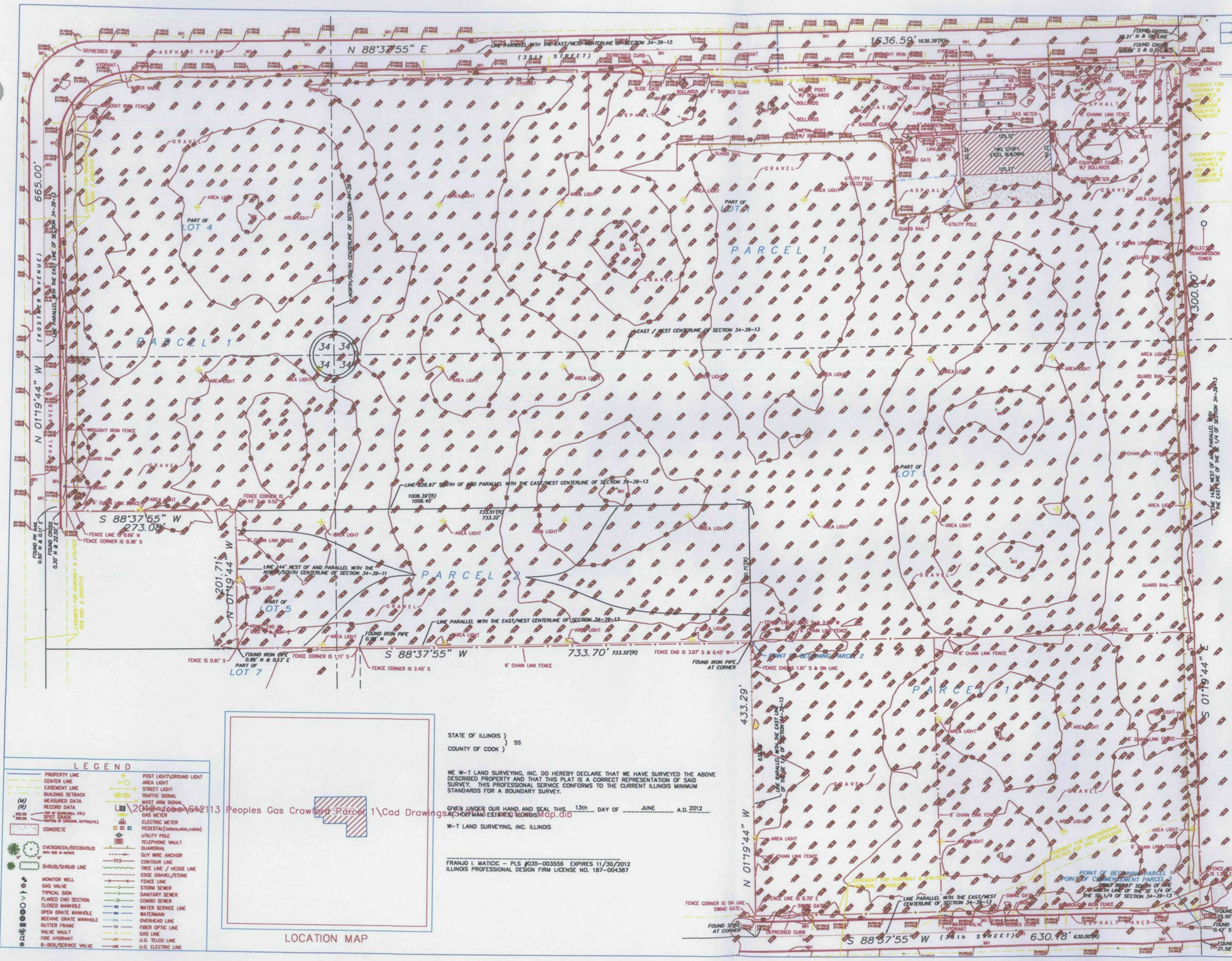
List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	4.2,4.5
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 sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX B3

SITE SURVEY (W-T LAND SURVEYING)

BOUNDARY SURVEY



PARCEL 1

A TRACT OF LAND CONSISTING OF A PART OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF SECTION 34, TOWNSHIP 39 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN AND CONSISTING ALSO OF A PART OF LOT 1, IN COUNTY CLERK'S DIVISION OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 34, TOGETHER WITH A PART OF EACH OF LOTS 4 AND 5 IN COUNTY CLERKS DIVISION OF THE EAST HALF OF THE WEST HALF OF SAID SECTION 34, SAID TRACT OF LAND BEING BOUNDED AND DESCRIBED AS FOLLOWS: BEGINNING ON A LINE WHICH IS 1430 FEET WEST FROM AND PARALLEL WITH THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 34, AT A POINT THEREON WHICH IS 861.97 FEET SOUTH FROM THE NORTH LINE OF SAID SOUTHEAST QUARTER AND RUNNING THENCE WEST ALONG A LINE PARALLEL WITH THE EAST AND WEST CENTERLINE OF SAID SECTION 14, A DISTANCE OF 630 FEET; THENCE NORTH ALONG A LINE WHICH IS PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 635 FEET; THENCE WEST ALONG A LINE WHICH IS PARALLEL WITH SAID EAST AND WEST CENTERLINE OF SAID SECTION 34, A DISTANCE OF 1006.39 FEET; THENCE NORTH ALONG A LINE WHICH IS PARALLEL WITH THE EAST LINE OF SAID SECTION 34, A DISTANCE OF 665 FEET; THENCE EAST ALONG A LINE WHICH IS PARALLEL WITH SAID EAST AND WEST CENTERLINE OF SECTION 34, A DISTANCE OF 1636.39 FEET TO ITS INTERSECTION WITH SAID LINE WHICH IS 1430 FEET WEST FROM AND PARALLEL WITH THE EAST LINE OF SECTION 34; AND THENCE SOUTH ALONG THE LAST DESCRIBED PARALLEL LINE, A DISTANCE OF 1300 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

PARCEL 2

A TRACT OF LAND CONSISTING OF A PART OF LOT 1 IN COUNTY CLERK'S DIVISION OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SECTION 34, TOGETHER WITH PARTS OF LOTS 5 AND 7 IN COUNTY CLERK'S DIVISION OF THE EAST HALF OF THE WEST HALF OF SAID SECTION 34, TOWNSHIP 39 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, SAID TRACT OF LAND DESCRIBED AS FOLLOWS: COMMENCING ON A LINE WHICH IS 1420.00 FEET WEST FROM AND PARALLEL WITH THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 34, AT A POINT THEREON WHICH IS 861.97 FEET SOUTH FROM THE NORTH LINE OF SAID SOUTHEAST QUARTER; THENCE WEST ALONG A LINE PARALLEL WITH THE EAST AND WEST CENTERLINE OF SAID SECTION 34, A DISTANCE OF 630.00 FEET; THENCE NORTH ALONG A LINE PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER OF SECTION 34, FOR A DISTANCE OF 433.29 FEET FOR THE POINT OF BEGINNING OF THE LAND HEREON DESCRIBED; THENCE CONTINUING NORTH ON THE LAST DESCRIBED COURSE FOR A DISTANCE OF 201.71 FEET TO A LINE 226.97 FEET SOUTH OF AND PARALLEL WITH THE EAST AND WEST CENTERLINE OF SAID SECTION 34; THENCE WEST ALONG SAID LINE 226.97 FEET SOUTH OF AND PARALLEL WITH THE EAST AND WEST CENTERLINE OF SECTION 34, FOR A DISTANCE OF 733.51 FEET TO A LINE 144.00 FEET WEST OF AND PARALLEL WITH THE NORTH AND SOUTH CENTERLINE OF SAID SECTION 34; THENCE SOUTH ALONG SAID LINE 144.00 FEET WEST OF AND PARALLEL WITH THE NORTH AND SOUTH CENTERLINE OF SECTION 34, FOR A DISTANCE OF 201.71 FEET; THENCE EAST PARALLEL WITH SAID EAST AND WEST CENTERLINE OF SECTION 34, FOR A DISTANCE OF 733.70 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

NOTES:

1. PROPERTY AREA: 37.567 ACRES
2. FIELD WORK COMPLETED: 5-24-12
3. SURVEY PREPARED WITHOUT THE AID OF A TITLE REPORT, REFER TO A CURRENT TITLE REPORT, DEED AND LOCAL CODES FOR ANY EASEMENT, BUILDING SETBACKS AND OTHER LOCAL RESTRICTIONS NOT SHOWN HERON.
4. SURVEY PREPARED FOR: BURNS & McDONNELL
5. BUILDING TIES & DIMENSIONS SHOWN ARE MEASURED FROM THE OUTSIDE FACE OF THE BUILDING.
6. BASIS OF BEARINGS IS TRUE NORTH BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM, ILLINOIS EAST 1201 ZONE.
7. ANY DISCREPANCIES FOUND WITHIN THIS DOCUMENT NEED TO BE REPORTED TO THE SURVEYOR AS SOON AS POSSIBLE.

LEGEND

PROPERTY LINE
CENTER LINE
EASEMENT LINE
BUILDING SETBACK
(M) MEASURED DATA
(R) RECORD DATA
SPOT GRADE
CONCRETE
EVERGREEN/DECIDUOUS
SHRUB/SHRUB LINE
MONITOR WELL
GAS VALVE
TYPICAL SIGN
FLARED END SECTION
CLOSED MANHOLE
OPEN GRATE MANHOLE
BEEHIVE GRATE MANHOLE
GUTTER FRAME
VALVE VAULT
FIRE HYDRANT
B-BOX/SERVICE VALVE
POST LIGHT/GROUND LIGHT
AREA LIGHT
STREET LIGHT
TRAFFIC SIGNAL
MAST ARM SIGNAL
GAS METER
ELECTRIC METER
PEDESTAL(teleco,elec,cable)
UTILITY POLE
TELEPHONE VAULT
GUARDRAIL
GUY WIRE ANCHOR
CONTOUR LINE
TREE LINE / HEDGE LINE
EDGE GRAVEL/STONE
FENCE LINE
STORM SEWER
SANITARY SEWER
COMBO SEWER
WATER SERVICE LINE
WATERMAIN
OVERHEAD LINE
FIBER OPTIC LINE
GAS LINE
U.G. TELCO LINE
U.G. ELECTRIC LINE

U:\2012\12-12113 Peoples Gas Crawford Parcel 1\Cad Drawings\ALTA\Map.dlb

LOCATION MAP

STATE OF ILLINOIS }
} SS
COUNTY OF COOK }

WE W-T LAND SURVEYING, INC. DO HEREBY DECLARE THAT WE HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY AND THAT THIS PLAT IS A CORRECT REPRESENTATION OF SAID SURVEY. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

GIVEN UNDER OUR HAND AND SEAL THIS 13th DAY OF JUNE A.D. 2012
AT HOFFMAN ESTATES, ILLINOIS

W-T LAND SURVEYING, INC. ILLINOIS

FRANJO I. MATICIC – PLS #035-003556 EXPIRES 11/30/2012
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 187-004387

REVISIONS	DATE	BY

W-T LAND SURVEYING, INC.
LAND AND CONSTRUCTION SURVEYORS
2855 Pratum Avenue
Hoffman Estates, Illinois 60192
PH (847)783-0220 FAX (847)783-0444
www.wtsurveyors.com
IL License No. 184-003687 Exp. 04/30/13
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CRAWFORD STATION PARCEL L
CHICAGO, ILLINOIS

BOUNDARY SURVEY

DATE :	5/29/12
SCALE :	1"=60'
DRAWN :	MWO
BOUNDARY :	FIM
FIELD WORK :	REM
CHECK :	MWO
JOB :	S12113
SHEET	S-1
REVISION	

OF FOUR SHEETS

APPENDIX C

SITE-SPECIFIC PERIMETER AIR MONITORING ACCEPTABLE AIR CONCENTRATIONS – TECHNICAL MEMORANDUM

Exponent
1800 Diagonal Road, Suite 500
Alexandria, VA 22314

Technical Memorandum
August 2, 2012

Site-Specific Time Critical Removal Action Perimeter Air Monitoring Acceptable Air Concentrations

As part of the focused time critical removal action project to be performed on Parcel L of the former Crawford Station Manufactured Gas Plant (MGP) (Parcel L Removal Action Area) in Chicago, Illinois, air monitoring will be conducted to measure the concentrations of MGP-related constituents associated with the removal action. Two types of air monitoring will be conducted during the project.

The first type will be real-time air monitoring of specific constituents (total volatile organic compounds (TVOCs), particulate matter less than 10 μm in size [PM_{10}]) conducted with stationary air monitoring instruments as described in the air monitoring plan (AMP) presented in the *Removal Action Work Plan, Addendum No. 1* developed by Natural Resource Technology, Inc. The real-time air monitoring stations will be located at the perimeter of the Parcel L Removal Action Area (Parcel L RAA). These real-time measurements will be collected using automated air sampling and analysis devices at a specified sampling interval (e.g., every 15 minutes) over the entire day and compared in real-time to the perimeter Action Levels presented in the AMP. Any exceedance of the Action Levels will require specific response measures by the removal action contractor to reduce the vapor and/or particulate phase emissions.

The second type of air monitoring will be done using stationary sampling devices that take integrated air samples over a 24-hour period to measure the concentrations of MGP-related constituents at the Site perimeter (i.e., the fence line). These samples are then sent to an offsite laboratory for analysis. These air concentrations will be compared with the acceptable air concentrations (AACs) developed to be protective of the health of the general public, as described in this technical memorandum. The goal of the air monitoring program is to maintain air concentrations at the secured perimeter of Parcel L, as measured in the integrated 24-hour samples, at levels below applicable AACs.

Conceptual Approach

Exponent was requested by Integrys Business Support, LLC (IBS) to develop AACs for the Parcel L RAA. The AACs were developed to be protective of the residents living nearby, as they are considered the most sensitive population located in close proximity to the Parcel L RAA. The AACs were developed using U.S. Environmental Protection Agency (EPA) risk assessment methods, the most current available toxicity data, physical parameter information, and by applying site-specific exposure parameters that consider the nature of the remediation project (U.S. EPA 2009a-d, 2012a,b). These site-specific AACs were developed based on the fact that the only potential exposure pathway for nearby residents for chemicals associated with the Parcel L removal action (i.e., soil removal) would be inhalation of fugitive air emissions. These fugitive air emissions would be in the form of dust for those MGP-constituents that are relatively non-volatile (e.g., high-molecular-weight polycyclic aromatic hydrocarbons [PAHs]) and as chemical vapors for volatile MGP constituents (e.g., benzene and naphthalene). Because of the methodology used to calculate the AACs (described below), a worker[1] and resident who were exposed for the same amount of time would have the same potential exposure. Thus, AACs calculated under a residential scenario, which assumes exposures 24 hours per day, 7 days per week, would also be protective of a worker who would be exposed for fewer hours.

The specific MGP-related constituents for which AACs were developed were those that are typically evaluated for MGP site remediation because of their volatility and/or toxicity, including BTEX, and eight specific PAHs. In addition, the health-based value developed by EPA for dust (i.e., PM_{10}) was adopted to address health concerns associated with particulate matter or dust.

Parcel L is a vacant parcel comprised of an unoccupied building and a gravel laydown area. Kostner Avenue is located along the western perimeter of Parcel L and 35th Place is along the northern perimeter. Residents, a high school, and a park are located approximately 1,000 ft to the north of Parcel L. Truck storage yards are located approximately 100 ft from the removal

[1] The term "worker" refers to commercial/industrial workers located within the portion of the industrial park outside of the secured fence surrounding Parcel L. The term "worker" does not refer to remediation contractor employees located within Parcel L.

action area along the south/southwest side of Parcel L. The perimeter fence is the closest location to the active removal project where the general public could potentially be exposed to the fugitive emissions, as the general public will not have access to the Parcel L RAA. The AACs were developed using a conservative approach, so that if exposure to MGP-related constituents occurred at the secured perimeter over the entire duration of the Parcel L removal action for 24 hours per day, the exposure would not pose a health concern to the general public. As distance from the Parcel L RAA increases, air concentrations will be diluted and reduced in concentration relative to those measured at or near the Parcel L RAA. The calculations used to derive the AACs are described below, followed by the specific exposure and toxicity factors used as inputs. The resultant AACs are presented in Table 1.

Equations and Methods Used to Derive AACs

Equations

The equations used to calculate the AACs were derived from current EPA guidance for inhalation exposures, as presented in the user's guide for EPA's regional screening levels (U.S. EPA 2012a).

For this site, the exposure terms were simplified because the exposure duration is short (i.e., less than 2 years) because of the nature of the planned removal action, yielding the following site-specific equations for developing the AACs. The equations differ slightly for noncarcinogenic and carcinogenic effects of a chemical. The input values and definition of all abbreviations are provided in Table 1.

Noncarcinogenic

$$\text{AAC noncarc (mg/m}^3\text{)} = \frac{\text{THQ} \times \text{AT(noncarc)}}{\text{EF} \times \text{ET} \times (1\ \text{day/24 hrs}) \times (1/\text{RfC})}$$

Carcinogenic

$$\text{AAC carc (mg/m}^3\text{)} = \frac{\text{TR} \times \text{AT(carc)}}{\text{EF} \times \text{ET} \times (1\ \text{day/24 hrs}) \times \text{IUR} \times 1000}$$

For noncarcinogens, a target hazard quotient of 1 was used to estimate the AACs. For carcinogens, AACs were calculated using three different target risk levels of 1×10^{-4}, 1×10^{-5}, and 1×10^{-6}, so that values could be developed that spanned the risk range typically considered when assessing cancer risks at Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) sites. Cumulative risks within the risk range are considered potentially acceptable depending upon site-specific circumstances that are evaluated by EPA. Cumulative risks above 1×10^{-4} are not typically considered acceptable. The goal will be to manage fugitive air emissions during the removal action such that air concentrations are as low as practically possible. Thus on average, the goal will be to meet AACs that are at the lower end of the risk range, and if possible below the range presented in Table 1.

For chemicals for which both cancer- and noncancer-based toxicity values are available (i.e., benzene, ethylbenzene, and naphthalene), the AACs needed to be calculated using both sets of toxicity values. When the noncancer-based AAC was lower than the cancer-based AAC (for a particular risk level), the noncancer-based AAC was selected as the AAC to be health protective, and is indicated with a box in Table 1. Typically, at the 1×10^{-6} risk level, the cancer-based values are lower than the noncancer-based values, but as the target risk level for carcinogens is increased (i.e., from 1×10^{-6}, to 1×10^{-5}, to 1×10^{-4}), the noncancer-based AAC may be lower than the cancer-based value. This situation occurs for benzene and naphthalene at the 1×10^{-4} risk levels, indicating that the noncancer-based value is more health protective in this instance and should be used as the AAC.

Exposure Factors

The following section explains the basis for the site-specific exposure factors used to develop the AACs for the residential population near the Parcel L RAA. The toxicity values addressed later in this document were developed in a conservative manner to be health protective for sensitive human populations, including children, and were used following the most current inhalation dosimetry methodology, thus do not require normalization to body weight and daily inhalation rate (U.S. EPA 2009e).

Exposure Frequency and Exposure Time

The duration of the remediation project is anticipated to be 84 weeks, with activities that could potentially lead to fugitive emissions (e.g., active removal of contaminated soil) to last a total of 78 weeks during this 84-week period. During active removal, excavated soil will be loaded onto trucks for offsite disposal as soon as possible to minimize stockpiling. Open excavations and stockpiles that may exist within the secured perimeter during non-working hours will be covered with a vapor-phase suppressant foam and/or a tarp to minimize fugitive air emissions. If necessary, additional engineering controls, such as a misting system or fan, will be used to control fugitive emissions from the Parcel L RAA. In addition, soil wetting with potable water may also be used to control fugitive dust emissions from stockpiles, excavated areas, and access roads.

Work schedules for this project may vary in terms of number of hours per day or number of days per week worked. Therefore, the AACs were conservatively developed using the assumptions that emissions could occur 24 hours per day, 7 days per week during the project (Table 1). These exposure assumptions also correspond to the air monitoring sampling period (24 hours/day) that will be used for collecting the integrated air samples.

Averaging Time

For carcinogens, the averaging time is the full lifetime of an individual, assumed to be 70 years (equivalent to 25,550 days) based on EPA risk assessment guidelines (U.S. EPA 1989).

For noncarcinogens, the averaging time is limited to the duration over which exposure may occur based on the same EPA risk assessment guidelines (U.S. EPA 1989). For this site-specific scenario, the removal action is expected to occur intermittently over the 84-week project period, so the averaging time for noncarcinogens is 588 days (84 weeks × 7 days/week). While exposure is expected to occur only 546 days (i.e., equivalent to 78 weeks of exposure) during the project period (84 weeks), the exposure is averaged over the entire period of the project because potential exposures will occur intermittently throughout the project period.

Toxicity Values

Toxicity values used are presented in Table 1. Values used were obtained from EPA's Integrated Risk Information System (IRIS, U.S. EPA 2012b), EPA's provisional peer-reviewed toxicity values (PPRTVs, U.S. EPA 2009a-d) and the California Environmental Protection Agency (Cal-EPA 2009). For noncarcinogenic effects of chemicals, reference concentrations (RfC) were used to assess the toxicity of the MGP-related constituents. RfCs are available for BTEX and naphthalene. For carcinogenic effects, inhalation unit risk (IUR) factors were used to assess the MGP-related constituents. There are IUR values for benzene, ethylbenzene, and eight PAHs.

For noncarcinogens, subchronic rather than chronic toxicity values were used. EPA defines a subchronic exposure duration as one lasting more than 30 days up to 10% of a lifetime in humans, which would be 7 years (U.S. EPA 2011). Thus, the 84-week total duration of this project is more appropriately considered a subchronic exposure period, rather than a chronic exposure period. EPA provides PPRTVs for subchronic exposures for benzene, ethylbenzene, and xylenes, which were used in Table 1 (U.S. EPA 2009a-c). For toluene, the PPRTV document recommends the use of the chronic value for subchronic exposures (U.S. EPA 2009d).

For naphthalene there are no subchronic inhalation toxicity values. The EPA chronic RfC for naphthalene is based on a 2-year mouse study where nasal inflammation was observed in mice chronically exposed to naphthalene. EPA did not note additional adverse effects at or near the dose level used to derive the RfC. Nasal inflammation is a reversible effect, meaning once exposure ends, the inflammation will subside. The estimated human equivalent concentration of naphthalene that would cause the nasal inflammation based on this study was 9 mg/m^3 (U.S. EPA 1998, 2012b). This human equivalent concentration was used by EPA, with an uncertainty factor of 3,000 to derive the chronic naphthalene RfC of 0.003 mg/m^3. The 3,000-fold uncertainty factor is based on the following:

- A 10-fold factor for extrapolation from an adverse-effect-level to a no-adverse-effect-level

- A 10-fold interspecies extrapolation factor to account for the differential sensitivity of humans compared to other animals (e.g., mice)
- A 10-fold intraspecies extrapolation factor to account for the difference in sensitivity among humans
- An additional 3-fold factor was included because there were deficiencies in the toxicology data available (e.g., lack of reproductive data).

As the period of exposure for this short-term project will be clearly subchronic in nature, a subchronic RfC was desired to more closely match the short-term exposure period. To estimate a subchronic inhalation toxicity value for naphthalene, EPA's chronic RfC (0.003 mg/m^3) was multiplied by a 10-fold factor to adjust from a no-adverse-effect-level over a *chronic* period of exposure to a no-adverse-effect-level over a *subchronic* exposure period (i.e., 0.03 mg/m^3).

The seven PAHs listed in the attached table, other than naphthalene, are compounds that have been classified by EPA as probable human carcinogens for decades and are normally evaluated as such. Benzene is classified as a known human carcinogen, and there is an IUR available for it in IRIS. However, only oral cancer-based toxicity values (i.e., slope factors) have been developed for the seven PAHs by EPA. The oral cancer slope factor for benzo[a]pyrene is presented in IRIS while the values for the other six PAHs are based on a potency factor relative to benzo[a]pyrene (U.S. EPA 1993). However, Cal-EPA has developed inhalation toxicity values for these seven PAHs, which were ones used in the calculation of the AACs. The classification of naphthalene and ethylbenzene as to whether they are considered carcinogens is currently under review by EPA (U.S. EPA 2004, 2012b). However, Cal-EPA has developed cancer-based inhalation toxicity values for these two compounds. AACs for naphthalene and ethylbenzene were developed using both cancer and noncancer toxicity values, with the lowest value being selected as the AAC.

Estimated AACs and Application of AACs

The estimated AACs are presented in Table 1. Integrated air sample results collected over a 24-hour period will be compared to the AACs in Table 1 for each of the volatile constituents (i.e., BTEX and naphthalene). While naphthalene is a volatile PAH that will be present in the vapor phase in air, the other seven PAHs for which AACs were developed (i.e., benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenzo[a,h]-anthracene, and indeno[1,2,3-cd]pyrene) are relatively non-volatile. These seven non-volatile PAHs are bound on the particulate matter or dust generated during the soil removal process rather than present as a vapor (like naphthalene) in air. For these seven PAHs, two sampling methods will initially be used to evaluate compliance with the AACs, including integrated air sampling, and real-time air sampling of dust using a DustTrac monitor. Integrated air sampling methods (i.e., using polyurethane foam (PUF) sampling media) will be used to directly measure the air concentration of the seven PAHs in the dust over a 24-hour period. The integrated air sample results using the PUF sampling method will be compared to the applicable AACs listed in Table 1.

In addition, the ambient air respirable dust concentration (i.e., PM_{10}) will be measured using a real-time DustTrac monitor over the same 24-hour period that the PUF samples are collected. The measured dust concentration will be compared to the PM_{10} standard in Table 1. The real time dust monitoring will be used to indirectly monitor if the AACs for the seven non-volatile PAHs are achieved when the PM_{10} standard is achieved. Based on the maximum concentrations of each of the seven non-volatile PAHs detected in soil at the Parcel L RAA, the maximum air concentrations of each PAH that could be generated if the PM_{10} standard (i.e., 0.15 mg/m^3) is achieved were estimated (Table 2). The predicted maximum air concentration of each non-volatile PAH (assuming the dust concentration was equivalent to the PM_{10}) was compared to its AAC that was developed using a target cancer risk of 1×10^{-5}, which is in the middle of the acceptable target risk range (Table 2). In each case, the maximum predicted air concentration of each non-volatile PAH was much less than the selected AAC (Table 2). For this reason, as long as the PM_{10} air standard is achieved, the air concentrations of each of the seven non-volatile PAHs are predicted to be below their respective AACs based on a target risk of 1×10^{-5}. If the PUF samples collected concurrently with the DustTrac dust monitoring yield PAH air

concentrations below the AACs during the initial period of sampling, this will verify the presumably conservative nature of the predicted air concentrations in Table 2. Once this verification is completed with the PUF sampler and if the air concentrations of the non-volatile PAHs are much lower than their AACs, then the achievement of the AACs for these non-volatile PAHs may be monitored indirectly by measuring the PM_{10} concentration (i.e., using a DustTrac hand held monitor), rather than using PUF samplers.

Prior to the beginning of the removal action, concentrations of the MGP-related constituents will be measured to evaluate the baseline levels at the Parcel L RAA. It is expected that the ambient or background air concentrations of the MGP-related constituents will be much lower than the AACs and will not contribute significantly to the daily air concentrations measured at the secured perimeter. If significant baseline air concentrations are detected (i.e., near the AACs), then the AACs will be reassessed to account for this contribution. Specifically, the AACs based on noncancer effects need to be achieved when considering the cumulative air emissions from both the removal action and baseline ambient conditions to maintain protection of the public. For the AACs based on carcinogenic effects, the point of comparison will be the incremental increased air concentration attributable to the remedial action (i.e., that is the incremental air concentration measured above the baseline conditions).

Once the active removal begins, the project will be managed to minimize fugitive air emissions. The first line of information used to make management decisions to control fugitive air emissions will be the real-time monitoring and comparison to perimeter air Action Levels. These Action Levels are guidelines and not health-based concentration limits. The primary management goal will be to minimize fugitive air emissions to meet the AACs presented in Table 1, as the AACs are health-based concentrations.

For the chemicals with only known noncarcinogenic effects (e.g., toluene and xylenes), there is a single noncarcinogenic-based AAC; thus, air concentrations above that value will be considered an exceedance of the AAC, which will require consideration of taking additional actions to reduce fugitive emissions at the Parcel L RAA. Similarly, if the dust concentration exceeds the PM_{10} standard, it will represent an AAC exceedance, which will also require consideration of taking additional actions to reduce fugitive emissions of dust (and indirectly

cPAHs) at the Parcel L RAA. For chemicals that are potentially carcinogenic, the daily incremental air concentration above background will be considered acceptable if they are within the AAC target risk ranges presented within Table 1 (i.e., 1×10^{-4} to 1×10^{-6}), as long as the cancer-based AAC at a given target risk does not exceed the noncancer-based AAC (see Table 1). An incremental air concentration above background that is greater than the AAC based on a 1×10^{-4} target risk level will be considered an exceedance that requires considering additional actions to reduce fugitive emissions. However, any air concentration greater than the lowest AAC for a specific analyte will be viewed by IBS and their contractors as a need to review the process used to manage fugitive emissions. Because the Action Levels will be used with real-time monitoring as the first line of defense to minimize fugitive air emissions, exceedances of the AACs will reflect the need to review the Action Levels and the real-time monitoring program to determine if lower Action Levels are required, or if more focused real-time monitoring is needed to better manage the fugitive emissions.

It is important to note that the AACs are representative of average concentrations to which a resident could be exposed without exceeding the target risk level over the exposure period (i.e., 84-week removal action project duration). Therefore, cumulative averages over the duration of the removal action project are a more appropriate comparison value than single-day measurements for meeting the overall project goal of protecting the general public. While individual daily measures will be used as a guide to address the need for reviewing the fugitive emission controls, the overall goal of meeting the AACs will be based on the average concentrations achieved over the project duration. If the project duration is extended significantly because of unforeseen circumstances, the AACs may need to be adjusted. However, whether adjusting the AACs is necessary will be determined based on the performance of the removal action up to the time that a project extension is first anticipated. The expectation is that the average air concentrations measured during the removal action will be maintained far enough below the calculated AACs that an extension of the project duration would not present any likelihood that the cumulative target risk goal (i.e., hazard quotient of 1 or within the risk range) would be exceeded. Therefore, unless this expectation is not met, the AACs should not need to be adjusted. A comparison of the integrated air monitoring data to the AACs will be part of the completion report prepared once the removal action is complete.

Lastly, these AAC values implicitly assume that a receptor will be near the Parcel L RAA for 24 hours a day during the entire project. If residents spend any of their time in a different location, actual risks will be lower.

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Table 1. Site-specific time critical removal action perimeter air monitoring acceptable air concentrations: Residential exposure scenario

Constituent	Noncancer RfC (mg/m^3)	Cancer IUR $(\mu g/m^3)^{-1}$	Basis and Source of Toxicity Values		Site-Specific Acceptable Air Concentrations: At Target Cancer Risk: 1E-04 at Target Hazard Quotient: 1 (mg/m^3)	($\mu g/m^3$)	(ppmv)	(ppbv)	At Target Cancer Risk: 1E-05 at Target Hazard Quotient: 1 (mg/m^3)	($\mu g/m^3$)	(ppmv)	(ppbv)	At Target Cancer Risk: 1E-06 at Target Hazard Quotient: 1 (mg/m^3)	($\mu g/m^3$)	(ppmv)	(ppbv)
Benzene (cancer)	–	7.8E-06	C	IRIS	0.60	600	0.19	190	0.060	60	0.019	19	0.0060	6.0	0.0019	1.9
Benzene (noncancer, subchronic)	0.080	–	NC	PPRTV	0.086	86	0.027	27	0.086	86	0.027	27	0.086	86	0.027	27
Toluene	5.0	–	NC	IRIS	5.4	5,400	1.4	1,400	5.4	5,400	1.4	1,400	5.4	5,400	1.4	1,400
Ethylbenzene (cancer)[a]	–	2.5E-06	C	Cal-EPA	1.9	1,900	0.43	430	0.19	190	0.043	43	0.019	19	0.0043	4.3
Ethylbenzene (noncancer, subchronic)	9.0	–	NC	PPRTV	9.7	9,700	2.2	2,200	9.7	9,700	2.2	2,200	9.7	9,700	2.2	2,200
Xylenes (subchronic)	0.40	–	NC	PPRTV	0.43	430	0.099	99	0.43	430	0.099	99	0.43	430	0.099	99
Naphthalene (cancer)[a]	–	3.4E-05	C	Cal-EPA	0.14	140	0.026	26	0.014	14	0.0026	2.6	0.0014	1.4	2.6E-04	0.26
Naphthalene (noncancer, subchronic)	0.030 [c]	–	NC	IRIS[c]	0.032	32	0.0062	6.2	0.032	32	0.0062	6.2	0.032	32	0.0062	6.2
Benz[a]anthracene[b]	–	1.1E-04	C	Cal-EPA	0.043	43	0.0046	4.6	0.0043	4.3	4.6E-04	0.46	4.3E-04	0.43	4.6E-05	0.046
Benzo[a]pyrene[b]	–	1.1E-03	C	Cal-EPA	0.0043	4.3	4.1E-04	0.41	4.3E-04	0.43	4.1E-05	0.041	4.3E-05	0.043	4.1E-06	0.0041
Benzo[b]fluoranthene[b]	–	1.1E-04	C	Cal-EPA	0.043	43	0.0041	4.1	0.0043	4.3	4.1E-04	0.41	4.3E-04	0.43	4.1E-05	0.041
Benzo[k]fluoranthene[b]	–	1.1E-04	C	Cal-EPA	0.043	43	0.0041	4.1	0.0043	4.3	4.1E-04	0.41	4.3E-04	0.43	4.1E-05	0.041
Chrysene[b]	–	1.1E-05	C	Cal-EPA	0.43	430	0.046	46	0.043	43	0.0046	4.6	0.0043	4.3	4.6E-04	0.46
Dibenz[a,h]anthracene[b]	–	1.2E-03	C	Cal-EPA	0.0039	3.9	0.00034	0.34	3.9E-04	0.39	3.4E-05	0.034	3.9E-05	0.039	3.4E-06	0.0034
Indeno[1,2,3-cd]pyrene[b]	–	1.1E-04	C	Cal-EPA	0.043	43	0.0038	3.8	0.0043	4.3	3.8E-04	0.38	4.3E-04	0.43	3.8E-05	0.038
PM_{10}	–	–	NAAQS for PM_{10}		0.15	150	–	--	0.15	150	–	--	0.15	150	–	–

Site-Specific Assumptions for Residential AAC Equations:

Averaging Time (AT) (carc)		70	years (lifetime)
	=	25,550	days
Averaging Time (AT) (noncarc)		588	days (reflects 84 weeks total duration of project × 7 days/wk)
Exposure Frequency (EF)		546	days (reflects number of days removal of contaminated material occurs and time a resident would be in area, 78 weeks × 7 day/week)
Exposure Time (ET)		24	hours/day (reflects number of hours a resident might be exposed)

Notes and Footnotes:

AAC equations, toxicity values, and sources based on EPA's regional screening levels (http://www.epa.gov/region9/superfund/prg/), which were last updated May 2012.
All AACs are rounded to two significant figures.
For noncarcinogenic effects, subchronic values were used when available. For toluene, the subchronic value was the same as the chronic value.
When both cancer-based and non-cancer based AACs are available for a particular chemical, the lowest value (for a particular risk level) is selected to be health protective, and is indicated with a box.

[a] Classification of napthalene and ethylbenzene is currently under review by EPA. Also see U.S. EPA (2004).

[b] The PM_{10} NAAQS of 150 $\mu g/m^3$ would also be protective of potential exposures to PAHs in dust.

[c] A subchronic RfC was estimated based on the chronic RfC. Refer to the text for details.

AAC – acceptable air concentration
Cal-EPA – California Environmental Protection Agency
C – AAC based on cancer endpoint
EPA – U.S. Environmental Protection Agency
IRIS – Integrated Risk Information System
IUR – inhalation unit risk
NAAQS – national ambient air quality standard
NC – AAC based on noncancer endpoint
PAH – polycyclic aromatic hydrocarbon
PM_{10} – particulate matter less than 10 µm in size
PPRTV – provisional peer-reviewed toxicity values (U.S. EPA; http://hhpprtv.ornl.gov/quickview/pprtv_papers.php)
RfC – reference concentration
THQ – target hazard quotient
TR – target risk (carcinogenic)

Air concentrations converted using the formula: (Concentration in mg/m^3) = (Concentration in ppm) × (Molecular Weight/24.45)
taken from U.S. EPA: http://www.epa.gov/iris/subst/0276.htm
Molecular weights taken from EPA, regional screening values: http://www.epa.gov/region9/superfund/prg/

Conversion 1 ppm to	mg/m^3
Benzene	3.19
Toluene	3.77
Ethylbenzene	4.34
Xylenes	4.34
Naphthalene	5.24
Benz[a]anthracene	9.34
Benzo[a]pyrene	10.32
Benzo[b]fluoranthene	10.32
Benzo[k]fluoranthene	10.32
Chrysene	9.34
Dibenz[a,h]anthracene	11.38
Indeno[1,2,3-cd]pyrene	11.30

Noncarcinogenic

$$\text{AAC noncarc } (mg/m^3) = \frac{THQ \times AT(noncarc)}{EF \times ET \times (1\ day/24\ hrs) \times (1/RfC)}$$

Carcinogenic

$$\text{AAC carc } (mg/m^3) = \frac{TR \times AT(carc)}{EF \times ET \times (1\ day/24\ hrs) \times IUR \times 1{,}000}$$

Table 2. Maximum predicted ambient concentrations in air for particulate-related constituents Crawford Station MGP Site (Parcel L), Chicago, Illinois

Constituent	Maximum Soil Concentration[a] (mg/kg)	Maximum Predicted Air Concentration[b] (mg/m^3)	Residential Acceptable Air Concentration[c] (mg/m^3)	Risk Ratio[d] (unitless)
Benz[a]anthracene	370	0.000056	0.0043	0.013
Benzo[a]pyrene	570	0.000086	0.00043	0.20
Benzo[b]fluoranthene	180	0.000027	0.0043	0.0063
Benzo[k]fluoranthene	250	0.000038	0.0043	0.0087
Chrysene	450	0.000068	0.043	0.0016
Dibenz[a,h]anthracene	32	0.000005	0.00039	0.012
Indeno[1,2,3-cd]pyrene	160	0.000024	0.0043	0.0056

[a] Maximum soil concentrations listed are based on the highest concentration of each constituent sampled from within the proposed excavation areas. The highest concentrations were obtained from soil boring location PCL-SP-117 (4–6').

[b] Based on an action level for PM_{10} of 0.15 mg/m^3 and calculated using the concentration of each constituent in soil as the assumed concentration of the constituent in airborne respirable dust.

$$\text{Maximum Predicted Air Concentration } (mg/m^3) = \text{Maximum Soil Concentration } (mg/kg) \times PM_{10} \text{ Action Level } (mg/m^3) \times (1\times10^{-6}\ kg/mg)$$

[c] Acceptable air concentration (AAC) for a resident based on a 1×10^{-5} target risk (from Table 1).

[d] Risk ratio represents the ratio of the maximum predicted air concentration over the AAC. A value less than 1 represents an air concentration below the selected target risk level.

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Mr. Ross del Rosario
USEPA Region 5 – SR-6J
77 W. Jackson Boulevard
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October 19, 2012
(2037)

RE: Administrative Order on Consent
Response to USEPA Comments on Removal Action Work Plan Addendum
Former Crawford Station MGP Site
The Peoples Gas Light and Coke Company

CERCLA Docket No. V-W-11-C-981
CERCLIS ID – ILN000510192

Dear Mr. del Rosario:

On behalf of Integrys Business Support, LLC (IBS), Natural Resource Technology, Inc. (NRT) has prepared this letter in response to comments from the United States Environmental Protection Agency (USEPA), dated September 19, 2012, related to the Removal Action Work Plan Addendum 1 (RAWP Addendum 1) (NRT, August 15, 2012) for the former Crawford Station Manufactured Gas Plant (MGP) Site.

This letter provides a response to each USEPA comment and indicates the specific items that have been included in the enclosed Removal Action Plan Addendum 1 Revision 1 (RAWP Addendum 1 Rev.1) (NRT, October 19, 2012). For ease of review, comments received from USEPA are presented below in italics, followed by IBS responses.

General

USEPA COMMENT 1 *Various sections of the report (e.g., Previous Investigations, Site Geology and Hydrogeology, Removal Action Decision Criteria, Runoff & Erosion Control, etc.) cite the Completion Report (Ver. 0) and RAWP Rev. 1 as containing the relevant details for these sections. Please provide appropriate sections/page numbers of the forementioned reports where this information can be found.*

RESPONSE: The references to previous documents have been updated to include specific sections and page numbers in the RAWP Addendum 1 Rev.1.

Specific

USEPA COMMENT 2 *Section 1.6 – It is indicated in this section that no "significant" remedial activities have previously been performed on Parcel L. Have there been remedial activities performed on Parcel L not considered "significant"? Please explain;*

RESPONSE: Based on review of available historic information, no documented remedial activities have been performed at Parcel L. The RAWP Addendum 1 Rev. 1 has been updated to clarify this point.

USEPA COMMENT 3 *Section 1.6 – If possible, please provide more specifics on what surface features existed in the past and that were eventually removed. If this information is contained in the completion report or RAWP Rev. 1, please cite the specific section/page where this information can be found in these reports;*

RESPONSE: Information regarding MGP operations and related structures at the Crawford Station MGP Site is included in Section 1.2 of the Crawford Station MGP Site Completion Report Revision 0 (Completion Report Rev. 0) (December 23, 2011). Additionally, aerial photographs included in Appendix A1 of the Completion Report Rev. 0 provide information regarding historic site structures. Photographs from 1938, 1951, and 1962 display structures at Parcel L. These structures include a gas relief holder, gas oil storage tanks, the generator house, a tar storage tank, and the exhauster building. In the photograph from 1972, these structures are no longer visible, indicating that these MGP structures were dismantled and removed between 1962 and 1972. During prior site investigation activities conducted by Burns & McDonnell and NRT, test pits and soil borings were advanced that indicated the likely presence of subsurface features (e.g., foundations) associated with the former MGP structures. Test pit logs included in Appendix A of the RAWP Addendum 1 Rev.1 document that portions of the following structures remain underground at Parcel L:

- Gas holder in the southeast of Parcel L
- Gas meter building foundation
- Foundation of an oven
- Pump house foundation
- Sludge pit
- Base of the gas relief holder
- Tar storage tank
- Oil storage tank
- Settling sump
- Exhauster building foundation
- Boiler house foundation
- Intercepting sump
- Tar and oil pump house foundation

The status of other MGP structures at Parcel L is unknown.

USEPA COMMENT 4 *Section 1.6 – It is stated in this section that subsurface structures will be removed as necessary. Please provide, if there is one, a list of these subsurface structures to be removed. Also, what contingencies have been set up by Integrys in the event a particular subsurface structure cannot be removed as planned? Please explain;*

RESPONSE: A list of subsurface structures expected to be encountered during removal activities is included in Section 1.6 of the RAWP Addendum 1 Rev. 1. Additionally, portions of structures that have not been specifically identified may be encountered during removal activities. Based on the planned approach, it is anticipated that most or all of the former MGP structures within the proposed excavation area will be removed by standard excavation techniques. However, if it is determined that one or more structures is not practical to remove, steps will be taken to assess the potential impact leaving such structure would have on meeting the objectives stated in

the RAWP Addendum 1 Rev. 1. Where practical, a visual inspection will be made to determine the nature of any MGP source material that would remain in place should the structure not be removed. If the structure in question exhibits characteristics that indicate it is MGP source material, or potentially contains or physically impedes access to additional MGP source material, measures will be taken to limit the extent of potential future migration of impacts. These measures may include application of in-situ remediation products and/or the placement of physical barriers. In the event that structures are encountered that extend beyond the removal action area (i.e., straddle the project limits of Parcel L), their location will be documented. The remnant structures within Parcel L will be removed to the extent practicable. Those portions of structures that extend beyond the project limits may be left in place and will be addressed to limit the extent of future migration of MGP impacts as discussed above.

USEPA COMMENT 5 *Section 2.6 – Please indicate the contaminant(s) present in Parcel L which is driving the risk. In addition, to justify a time-critical removal action, please quantify the risk posed by the contaminants per NCP;*

RESPONSE: Based on a sample set of more than 800 soil samples collected from across Parcel L, the historical site investigation activities and soil data have documented the presence of MGP-related impacts in large areas of Parcel L, particularly the northwest quadrant. Supplemental site investigation activities performed by NRT, consisting of visual field observations and analytical data obtained from advancement of soil probes, have confirmed the presence of MGP source material.

In order to quantify the surface impacts at Parcel L, two additional surface soil samples were collected. Surface samples PCLSS121015001 (0 to 0.5 feet bgs) and PCLSS121015002 (0 to 0.5 feet bgs) were collected at the locations shown on the enclosed Figure 1 and analyzed for Total Petroleum Hydrocarbons. The results are presented in the following table.

Table 1: Recent Surface Sample Results

Sample ID	Depth Range (ft bgs)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
PCLSS121015001	0 - 0.5	80 J	24,000	24,080
PCLSS121015002	0 - 0.5	130 U	19,000	19,000

Notes:
1) GRO - Gasoline Range Organics
2) DRO - Diesel Range Organics
3) TPH - Total Petroleum Hydrocarbons is the sum of GRO and DRO.
4) ft bgs - feet below ground surface
5) mg/kg - milligrams per kilogram
6) U - Analyte was not detected. The associated number is the detection limit.
7) J - Estimated value.

As indicated in Table 1, both samples exceed the default values for soil attenuation capacity (6,000 mg/kg for surface soils and 2,000 mg/kg for subsurface soils) and exceed any anticipated site-specific soil attenuation capacity. Exceedance of the soil attenuation capacity provides evidence that MGP source material is present and in sufficiently elevated concentrations so as to give rise to the potential of migration and associated risk to receptors. The laboratory report for these samples is enclosed. These results demonstrate the presence of risks at Parcel L, as discussed in Section 2.6 of the RAWP Addendum 1 Rev.1 and are consistent with the criteria cited for a Removal Action under Section 300.415(b)(2) of the National Contingency Plan.

NATURAL RESOURCE TECHNOLOGY

USEPA COMMENT 6 *Section 4.4.1 – Shoring. How deep will the sheet piles be driven (in bgs) along the northern, western, and southern boundaries of Parcel L?; and*

RESPONSE: While the sheet pile design has not been finalized, it is anticipated that design depths will extend approximately five feet below the excavation depths. Based on this assumption, sheet pile depths are expected to range from 25 to 35 feet bgs.

USEPA COMMENT 7 *Section 4.5 – Site Restoration. After removal of contaminants in Parcel L, what material will be used as fill (i.e., gravel or clean soil?).*

RESPONSE: After removal activities, Parcel L will be backfilled with crushed limestone.

Please contact Mr. Naren Prasad of IBS at 312.240.4569 if you should have any questions concerning this letter.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.

Joseph R. Ridgway, PE
Environmental Engineer

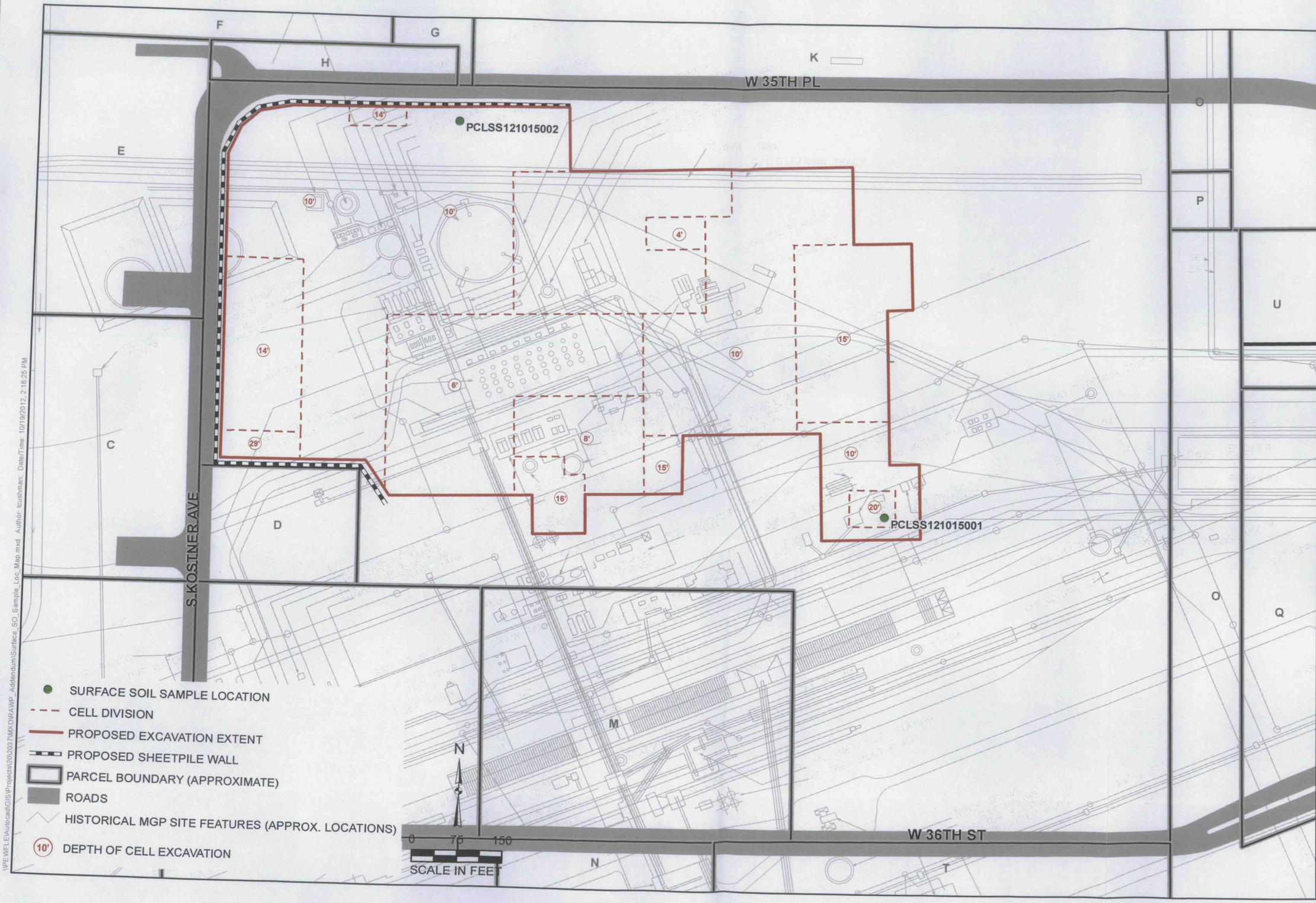
John M. Nardozzi, PE
Principal Engineer/Project Manager

Enclosures:

Removal Action Work Plan, Addendum 1, Revision 1 (2 hard copies, 2 CD copies)
Figure 1: Location of Recent Surface Soil Samples
Lab Report for Samples PCLSS121015001 and PCLSS121015002

cc: Mr. Doyle Wilson, IEPA (via US Mail and email)
Mr. Dave Klatt, CH_2MHill (via email)
Mr. Naren Prasad, Integrys (via email)
Ms. Jennifer M. Kahler, NRT (via email)

[File:\Responses to EPA Parcel L RAWP Comments]



DRAWN BY/DATE:
TDC 10/19/12
REVIEWED BY/DATE:
TBN 10/19/12
APPROVED BY/DATE:
TBN 10/19/12

SURFACE SOIL SAMPLE LOCATION MAP - OCTOBER 2012

REMOVAL ACTION WORK PLAN ADDENDUM 1 - PARCEL L
CRAWFORD STATION SITE
CHICAGO, ILLINOIS

PROJECT NO. 2037

FIGURE NO. 1

NATURAL RESOURCE TECHNOLOGY

\\PEWFLE\Autocad\GIS\Projects\20\2037\MXD\RAWP_Addendum\Surface_SO_Sample_Loc_Map.mxd Author: tcushman Date/Time: 10/19/2012, 2:18:25 PM

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-51279-1
Client Project/Site: Crawford Station Soil Sampling

For:
Natural Resource Technology, Inc.
300 S. Wacker Drive
Suite 2050
Chicago, Illinois 60606

Attn: Mr. Tim B Norris

Authorized for release by:
10/16/2012 3:40:47 PM

Jim Knapp
Customer Service Manager
jim.knapp@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: 500-51279-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-51279-1

Comments
No additional comments.

Receipt
The samples were received on 10/15/2012 3:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0° C.

GC/MS VOA
Method(s) 5030B:

No other analytical or quality issues were noted.

GC VOA
Method(s) 8015B: The following sample was diluted due to the abundance of non-target analytes: PCLSS121015002 (500-51279-2). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8015B: Due to the level of dilution required for the following samples, surrogate recoveries are not reported: PCLSS121015001 (500-51279-1), PCLSS121015002 (500-51279-2).

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
Method(s) 3541: 3541 8015

Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: PCLSS121015001 (500-51279-1), PCLSS121015002 (500-51279-2). The reporting limits (RLs) are elevated proportionately.

No other analytical or quality issues were noted.

Detection Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station Soil Sampling

TestAmerica Job ID: 500-51279-1

Client Sample ID: PCLSS121015001 — Lab Sample ID: 500-51279-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (C6-C9)	80	J	170	35	mg/Kg	1000	☼	8015B	Total/NA
Diesel Range Organics [C10-C28]	24000		1500	270	mg/Kg	50	☼	8015B	Total/NA

Client Sample ID: PCLSS121015002 — Lab Sample ID: 500-51279-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	19000		1700	310	mg/Kg	50	☼	8015B	Total/NA

Method Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station Soil Sampling

TestAmerica Job ID: 500-51279-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	TAL CHI
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

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 CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station Soil Sampling

TestAmerica Job ID: 500-51279-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-51279-1	PCLSS121015001	Solid	10/15/12 13:30	10/15/12 15:00
500-51279-2	PCLSS121015002	Solid	10/15/12 13:35	10/15/12 15:00

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station Soil Sampling

TestAmerica Job ID: 500-51279-1

Client Sample ID: PCLSS121015001
Date Collected: 10/15/12 13:30
Date Received: 10/15/12 15:00

Lab Sample ID: 500-51279-1
Matrix: Solid
Percent Solids: 56.2

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	80	J	170	35	mg/Kg	☼	10/15/12 13:30	10/16/12 04:51	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 130*	*10/15/12 13:30*	*10/16/12 04:51*	*1000*
a,a,a-Trifluorotoluene	*106*		*70 - 130*	*10/15/12 13:30*	*10/16/12 04:51*	*1000*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	24000		1500	270	mg/Kg	☼	10/15/12 17:46	10/16/12 03:19	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*10/15/12 17:46*	*10/16/12 03:19*	*50*
o-Terphenyl	*0*	*D*	*42 - 112*	*10/15/12 17:46*	*10/16/12 03:19*	*50*

Client Sample Results

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station Soil Sampling

TestAmerica Job ID: 500-51279-1

Client Sample ID: PCLSS121015002
Date Collected: 10/15/12 13:35
Date Received: 10/15/12 15:00

Lab Sample ID: 500-51279-2
Matrix: Solid
Percent Solids: 47.1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	<130		130	26	mg/Kg	☼	10/15/12 13:35	10/16/12 04:14	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*	*10/15/12 13:35*	*10/16/12 04:14*	*1000*
a,a,a-Trifluorotoluene	*105*		*70 - 130*	*10/15/12 13:35*	*10/16/12 04:14*	*1000*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**19000**		1700	310	mg/Kg	☼	10/15/12 17:46	10/16/12 04:30	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*32 - 110*	*10/15/12 17:46*	*10/16/12 04:30*	*50*
o-Terphenyl	*0*	*D*	*42 - 112*	*10/15/12 17:46*	*10/16/12 04:30*	*50*

Definitions/Glossary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station Soil Sampling

TestAmerica Job ID: 500-51279-1

Qualifiers

GC 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 Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

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)

QC Association Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station Soil Sampling

TestAmerica Job ID: 500-51279-1

GC VOA

Prep Batch: 165965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-51279-1	PCLSS121015001	Total/NA	Solid	5035	
500-51279-2	PCLSS121015002	Total/NA	Solid	5035	

Analysis Batch: 165967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-51279-1	PCLSS121015001	Total/NA	Solid	8015B	165965
500-51279-2	PCLSS121015002	Total/NA	Solid	8015B	165965
LCS 500-165967/4	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 500-165967/7	Lab Control Sample Dup	Total/NA	Solid	8015B	
MB 500-165967/3	Method Blank	Total/NA	Solid	8015B	

GC Semi VOA

Analysis Batch: 165755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-51279-1	PCLSS121015001	Total/NA	Solid	8015B	165951
500-51279-2	PCLSS121015002	Total/NA	Solid	8015B	165951
LCS 500-165951/2-A	Lab Control Sample	Total/NA	Solid	8015B	165951
MB 500-165951/1-A	Method Blank	Total/NA	Solid	8015B	165951

Prep Batch: 165951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-51279-1	PCLSS121015001	Total/NA	Solid	3541	
500-51279-2	PCLSS121015002	Total/NA	Solid	3541	
LCS 500-165951/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-165951/1-A	Method Blank	Total/NA	Solid	3541	

General Chemistry

Analysis Batch: 165859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-51279-1	PCLSS121015001	Total/NA	Solid	Moisture	
500-51279-2	PCLSS121015002	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station Soil Sampling

TestAmerica Job ID: 500-51279-1

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	TFT1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
500-51279-1	PCLSS121015001	101	106
500-51279-2	PCLSS121015002	100	105
LCS 500-165967/4	Lab Control Sample	96	104
LCSD 500-165967/7	Lab Control Sample Dup	99	106
MB 500-165967/3	Method Blank	97	108

Surrogate Legend

BFB = 4-Bromofluorobenzene

TFT = a,a,a-Trifluorotoluene

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		FBP1	OTPH1
Lab Sample ID	Client Sample ID	(32-110)	(42-112)
500-51279-1	PCLSS121015001	0 D	0 D
500-51279-2	PCLSS121015002	0 D	0 D
LCS 500-165951/2-A	Lab Control Sample	97	103
MB 500-165951/1-A	Method Blank	108	91

Surrogate Legend

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 500-165967/3
Matrix: Solid
Analysis Batch: 165967

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C9)	<2.5		2.5	0.50	mg/Kg			10/16/12 03:02	50

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*		*10/16/12 03:02*	*50*
a,a,a-Trifluorotoluene	*108*		*70 - 130*		*10/16/12 03:02*	*50*

Lab Sample ID: LCS 500-165967/4
Matrix: Solid
Analysis Batch: 165967

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C9)	20.0	20.8		mg/Kg		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*70 - 130*
a,a,a-Trifluorotoluene	*104*		*70 - 130*

Lab Sample ID: LCSD 500-165967/7
Matrix: Solid
Analysis Batch: 165967

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
Gasoline Range Organics (C6-C9)	20.0	21.4		mg/Kg		107	70 - 130	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*70 - 130*
a,a,a-Trifluorotoluene	*106*		*70 - 130*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 500-165951/1-A
Matrix: Solid
Analysis Batch: 165755

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 165951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	<8.3		8.3	1.5	mg/Kg		10/15/12 17:46	10/16/12 01:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*108*		*32 - 110*	*10/15/12 17:46*	*10/16/12 01:32*	*1*
o-Terphenyl	*91*		*42 - 112*	*10/15/12 17:46*	*10/16/12 01:32*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 500-165951/2-A
Matrix: Solid
Analysis Batch: 165755

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 165951

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			66.7	61.8		mg/Kg		93	56 - 122		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*97*		*32 - 110*
o-Terphenyl	*103*		*42 - 112*

Lab Chronicle

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station Soil Sampling

TestAmerica Job ID: 500-51279-1

Client Sample ID: PCLSS121015001

Lab Sample ID: 500-51279-1
Date Collected: 10/15/12 13:30
Matrix: Solid
Date Received: 10/15/12 15:00
Percent Solids: 56.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			165965	10/15/12 13:30	LM	TAL CHI
Total/NA	Analysis	8015B		1000	165967	10/16/12 04:51	EA	TAL CHI
Total/NA	Prep	3541			165951	10/15/12 17:46	DEA	TAL CHI
Total/NA	Analysis	8015B		50	165755	10/16/12 03:19	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	165859	10/15/12 17:31	CMV	TAL CHI

Client Sample ID: PCLSS121015002

Lab Sample ID: 500-51279-2
Date Collected: 10/15/12 13:35
Matrix: Solid
Date Received: 10/15/12 15:00
Percent Solids: 47.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			165965	10/15/12 13:35	LM	TAL CHI
Total/NA	Analysis	8015B		1000	165967	10/16/12 04:14	EA	TAL CHI
Total/NA	Prep	3541			165951	10/15/12 17:46	DEA	TAL CHI
Total/NA	Analysis	8015B		50	165755	10/16/12 04:30	SAW	TAL CHI
Total/NA	Analysis	Moisture		1	165859	10/15/12 17:31	CMV	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: Natural Resource Technology, Inc.
Project/Site: Crawford Station Soil Sampling

TestAmerica Job ID: 500-51279-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAC	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAC	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAC	7	E-10161	10-31-12
Kentucky	State Program	4	90023	12-31-12
Kentucky (UST)	State Program	4	66	04-11-13
L-A-B	DoD ELAP		L2304	01-06-13
L-A-B	ISO/IEC 17025		L2304	01-06-13
Louisiana	NELAC	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-12
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAC	6	T104704252-09-TX	02-28-13
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAC	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: Tim Norris
Company: NRT
Address: 4161 W 36th St.
Address: Chicago, IL 60632
Phone: 312-203-6399
Fax:
E-Mail: tnorris@naturalrt.com

Bill To (optional)
Contact: Accounts Payable
Company: IBS, LLC
Address: PO Box 19800
Address: Green Bay, WI 54307
Phone: 920-433-2929
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-51279
Chain of Custody Number:
Page 1 of 1
Temperature °C of Cooler: 40

Client: NRT
Client Project #: 2037
Project Name: Crawford
Project Location/State: Chicago, IL
Lab Project #:
Sampler: RSH
Lab PM: Jim Knapp

Preservative
Parameter

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	TPH GRO 8015B	TPH DRO 8015								Comments
		[illegible]														
		[illegible]														
		[illegible]														
1		PCLSS121015001	10/15/12	1:30	6	S	X	X								
2		PCLSS121015002	10/15/12	1:35	6	S	X	X								

Turnaround Time Required (Business Days)
X 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ Other
Requested Due Date ___

Sample Disposal
☐ Return to Client ☒ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Vince Gulcan	NRT	10/15/12	1406	[signature]	TA	10-15-12	1406
[signature]	TAC	10-15-12	1500	[signature]	TA-CHI	10/15/12	1500

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

10/16/2012

Login Sample Receipt Checklist

Client: Natural Resource Technology, Inc.

Job Number: 500-51279-1

Login Number: 51279
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	4.0
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	