This is a Region 5 Targeted Brownfields Assessment Funded Project

PHASE II
ENVIRONMENTAL SITE INVESTIGATION REPORT

Former Teledyne Site
West Allis, Wisconsin

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 5
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Westlake, Ohio 44145

and

THE CITY OF WEST ALLIS
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1 LABORATORY ANALYTICAL RESULTS

"I, Ashley A. Wagner, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Ashley A. Wagner

Ashley A. Wagner, P.G.
Senior Project Geologist

October 19, 2017
Date

EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency (EPA) tasked Tetra Tech, Inc. (Tetra Tech) to conduct a Phase II Environmental Site Assessment (ESA) at the Former Teledyne Site located at 1910 South 53rd Street in the City of West Allis, Milwaukee County, Wisconsin (see Figure A-1 in Appendix A). This ESA was performed to fulfill the requirements of a Site Investigation (SI) in accordance with Chapter NR716 of the Wisconsin Administrative Code. This work was assigned under Superfund Technical Assessment and Response Team (START) Contract No. EP-S5-13-01, Technical Direction Document (TDD) No. S05-0003-1612-004, as part of the Targeted Brownfields Assessment (TBA) program.

Based on the 1971 U.S. Geological Survey (USGS) 7.5-minute topographic map of the Milwaukee, Wisconsin Quadrangle, the site has an approximate elevation of 660 feet above mean sea level and slopes generally toward the east, to an intermittent stream. The site boundary and surrounding properties are provided on Figure A-2 in Appendix A. The site is an 8.96-acre parcel with no structures. The site is planned to be redeveloped as an industrial-commercial property, therefore; industrial exposure routes would apply and are evaluated in this report. However, non-industrial exposure routes were also evaluated for completeness.

The property was initially developed in 1910 by Wisconsin Motor Manufacturing Company (WMMC) for the production of four- and six-cylinder automotive and heavy duty engines. In 1968, WMMC became Teledyne Wisconsin Motors, and later Teledyne Industries. Operations conducted on the property included machining, heat treating, engine assembly, painting, engine testing, shipping, and carpentry. Teledyne Industries sold the property in 1993. The property was subsequently used as storage until the buildings were demolished sometime between 2011and 2012.

The site is bordered to the north by West Burnham Street followed by residential properties and West Milwaukee Park; to the east by a newly constructed commercial building; to the southeast by Veolia Solid Waste; to the south and west by various commercial and industrial buildings.

AECOM conducted a Phase I ESA on the site in February 2010. The purpose of the Phase I ESA was to evaluate the potential for recognized environmental conditions (REC) on the property. The Phase I ESA identified the following RECs in connection with the site:

- Historical use of the site for manufacturing of automotive engines and motors, in conjunction with observations of staining on the floors of several of the manufacturing areas and the general use and storage of chemicals, including petroleum products and chlorinated solvents.
- The Wisconsin Department of Commerce (COMM) database lists 11 underground storage tanks (UST) registered to the site as “closed/removed.” Wisconsin Department of Natural Resources (WDNR) files identified three USTs registered to the site, which were documented in UST closure/removal reports. AECOM also identified six USTs as shown on historical site plans. AECOM indicated it cannot be determined if the USTs identified on historical site plans correspond with those listed in the COMM database or WDNR reports based on comparison of the listed tank contents and sizes. WDNR UST closure reports documented residual low level soil impacts left in place due to physical constraints and the state of the practice at that time. Groundwater quality was not evaluated as part of the historical UST closure assessments.
- A potential for soil beneath the site to be impacted by polychlorinated biphenyls (PCB) in the former electrical substation area on the site, as well as from the use of PCB-containing transformers in the manufacturing area and facility power house.

- A hydraulic freight elevator on the site presents the potential for corresponding soil and groundwater contamination.
- Investment casting at the facility could have resulted in a build-up of wax-containing PCBs on the floors and walls; if present, special handling and disposal would be required prior to demolition of the building.
- An adjacent property to the east has been used as a salvage yard since the 1950s.

AECOM completed a Phase II ESA in October 2010 for the City of West Allis; findings are summarized as follows:

- In general, the detection of the petroleum volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH), and metals above WDNR generic residual contaminant levels (RCL) and VOCs detected in groundwater above the NR 140 criteria, along with the presence of light non-aqueous phase liquid, appears to be a reportable release.
- The exceedances of the WDNR soil and groundwater criteria around the six USTs will likely require additional investigation, possible remediation and closure under the NR 700 process.
- Based on observations of fill and/or vent pipes and historical records, it appears that there may be six USTs that remain on site. These six UST areas should be investigated during future demolition or construction activities to verify the presence of USTs, and be removed if present.
- Petroleum-impacted soils that may be excavated from the historical UST areas during future construction activities will require proper handling and disposal off site in accordance with solid and/or hazardous waste regulations.
- Based on the presence of foundry sand fill on the site, an exemption to construct under NR 500 will likely be required prior to excavating any waste/cover materials or constructing on the historical fill site.
- Fill materials that are generated as waste during the construction process will require either handling on site, under the NR 500 exemption, or disposal off site in accordance with solid and hazardous waste regulations.
- Construction and maintenance of a cap/barrier will be required for the site to prevent direct contact with VOC-, PAH-, and metals-impacted soil and/or groundwater that exceed the WDNR direct contact criteria.
- Active remediation may be required to address petroleum and/or VOC-impacted soil and/or groundwater.

Sometime between 2011 and 2012, existing buildings, seven USTs, and associated piping were demolished and removed from the site. No soil was removed from the site, and a 6-inch clay cap was installed in areas where soil concentrations exceeded WDNR industrial direct contact criteria.

Between April 10 and April 24, 2017, Tetra Tech advanced a total of 32 soil borings and converted five into groundwater monitoring wells. Forty one (41) soil samples were submitted for laboratory analysis of VOCs, PAHs, PCBs, pesticides, and Resource Conservation and Recovery Act (RCRA) metals. On May 2, 2017, five groundwater samples were collected from the five monitoring wells and submitted for laboratory analysis of VOCs, PAHs, PCBs, pesticides, and RCRA metals. One sample of the soil cuttings was submitted to the laboratory for toxicity characteristic leaching procedure (TCLP) VOCs, TCLP semi-

volatile organic compounds (SVOC), TCLP metals, PCBs, reactive cyanides, sulfide, corrosivity, pH, and paint filter. The soil and groundwater samples were analyzed by ALS Laboratories of Holland, Michigan.

On July19, 2017, Tetra Tech advanced 15 soil borings using a Geoprobe and collected one sample from each boring for further delineation. All samples were analyzed for PAHs and metals. Three samples were analyzed for VOCs. The soil samples were analyzed by CT Laboratories of Baraboo, Wisconsin.

The general geologic profile at the site consists of a foot of topsoil and clay underlain by fill (foundry sand and silty sand and gravel) to depths ranging from approximately 1.5 to 12.5 feet below ground surface. The fill is generally underlain by silty clay.

Laboratory analytical results for soil boring samples collected during the April 2017 and July 2017 investigations indicated that the contaminants of concern (COC) identified at the site include (1) VOCs, (2) SVOCs, and (3) metals. COCs that exceed WDNR RCLs and background threshold values or WAC NR 140 groundwater standards are as follows:

CONTAMINANTS OF CONCERN

Exposure Route	Confirmed COCs
Non-Industrial Exposure Route	
Soil Direct-Contact RCL	• Benzene • Ethylbenzene • Trichloroethene • Benz(a)anthracene • Benzo(a)pyrene • Benzo(b)fluoranthene • Dibenz(a,h)anthracene • Indeno(1,2,3-cd)pyrene • Naphthalene • Arsenic • Lead
Industrial Exposure Route	
Soil Direct-Contact RCL	• Benz(a)anthracene • Benzo(a)pyrene • Benzo(b)fluoranthene • Dibenz(a,h)anthracene • Arsenic • Lead
Groundwater Ingestion Exposure Route	
Groundwater Pathway RCL (Soil)	• Benzene • Ethylbenzene • Toluene • Xylenes, Total • Methylene chloride

Exposure Route	Confirmed COCs
	• Tetrachloroethene • Trichloroethene • Benz(a)anthracene • Benzo(b)fluoranthene • Chrysene • Naphthalene • Aroclor 1254 • Aroclor 1260 • Arsenic • Barium • Cadmium • Lead • Mercury • Selenium • Silver
Preventative Action Limit (Groundwater)	• Benzene • Benzo(a)pyrene • Benzo(b)fluoranthene • Naphthalene • Arsenic • Barium
Enforcement Standard (Groundwater)	• Benzene • Benzo(b)fluoranthene

A 6-inch clay cap currently exists at the site. Based on the soil sampling performed at the site, exceedances of WDNR industrial direct contact (DC) and Groundwater Pathway RCLs have been identified. Groundwater sample results exceed WDNR preventive action limits (PAL) and enforcement standards (ES). VOCs are present in both soil and groundwater. The following are recommended:

- A remedial action plan should be developed to eliminate direct contact with subsurface soils using engineered barriers (clay, concrete, or asphalt) (see Appendix G).
- Additional groundwater monitoring should be conducted for exceedances of WDNR ESs.
- A potential for vapor intrusion exists because of VOCs detected at the site. Therefore, any occupied building will require a pre-mitigative vapor barrier.

1.0 INTRODUCTION AND SITE BACKGROUND

The U.S. Environmental Protection Agency (EPA) tasked Tetra Tech, Inc. (Tetra Tech) to conduct a Phase II Environmental Site Assessment (ESA) at the Former Teledyne Site located at 1910 South 53rd Street in the City of West Allis, Milwaukee County, Wisconsin (Appendix A, Figure A-1).

This ESA was performed to fulfill the requirements of a Site Investigation (SI) in accordance with Chapter NR716 of the Wisconsin Administrative Code. This work was assigned under Superfund Technical Assessment and Response Team (START) Contract No. EP-S5-13-01, Technical Direction Document (TDD) No. S05-0003-1612-004, as part of the Targeted Brownfields Assessment (TBA) program.

Based on the 1971 U.S. Geological Survey (USGS) 7.5-minute topographic map of the Milwaukee, Wisconsin Quadrangle, the site has an approximate elevation of 660 feet above mean sea level (amsl) and slopes generally toward the east, to an intermittent stream. Relevant site features and surrounding properties are provided on Figure A-2 in Appendix A. The site is an 8.96-acre parcel with no structures; industrial exposure routes are anticipated to apply. However, non-industrial exposure routes were also evaluated for completeness.

The property was initially developed in 1910 by Wisconsin Motor Manufacturing Company (WMMC) for the production of four- and six-cylinder automotive and heavy duty engines. In 1968, WMMC became Teledyne Wisconsin Motors, and later Teledyne Industries. Operations on the property included machining, heat treating, engine assembly, painting, engine testing, shipping, and carpentry. Teledyne Industries sold the property in 1993. The property was subsequently used as storage until the buildings were demolished sometime between 2011 and 2012.

2.0 PREVIOUS SITE ASSESSMENTS

AECOM completed Phase I and Phase II ESAs on behalf of the City of West Allis and the City of West Allis Community Development Authority under a U.S EPA Petroleum Brownfield Assessment Grant to support potential redevelopment of the site. In addition, Symbiont performed building demolition and UST removals on behalf of the City of West Allis. This section summarizes the results of the previous ESAs and the demolition activities for the site.

2.1 Phase I Environmental Site Assessment (AECOM February 2010)

In February 2010, AECOM conducted a Phase I ESA on the site. The purpose of the Phase I ESA was to evaluate the potential for recognized environmental conditions (REC) on the property.

The following RECs were identified in the Phase I ESA:

- Historical use of the site for manufacturing of automotive engines and motors, in conjunction with observations of staining on the floors of several of the manufacturing areas and the general use and storage of chemicals, including petroleum products and chlorinated solvents.
- The Wisconsin Department of Commerce (WDOC) database (COMM) lists 11 underground storage tanks (UST) registered to the site as "closed/removed." Wisconsin Department of Natural Resources (WDNR) files identified three USTs registered to the site, which were documented in UST closure/removal reports. AECOM also identified six USTs as shown on historical site plans. AECOM indicated it cannot be determined if the USTs identified on historical site plans correspond with those listed in the COMM database or WDNR reports based on comparison of the listed tank contents and sizes. WDNR UST closure reports documented residual low level soil impacts left in place due to physical constraints and the state of the practice at that time. Groundwater quality was not evaluated as part of the historical UST closure assessments.
- A potential for soil beneath the site to be impacted by polychlorinated biphenyls (PCB) in the former electrical substation area on the site, as well as from the use of PCB-containing transformers in the manufacturing area and facility power house.
- A hydraulic freight elevator on the site presents the potential for corresponding soil and groundwater contamination.
- Investment casting at the facility could have resulted in a build-up of wax-containing PCBs on the floors and walls; if present, special handling and disposal would be required prior to demolition of the building.
- An adjacent property to the east has been used as a salvage yard since the 1950s.

Based on the findings of the Phase I ESA, a Phase II ESA was performed.

2.2 Phase II Environmental Site Assessment (AECOM October 2010)

A Phase II ESA was conducted by AECOM and summarized in a report dated October 2010. The purpose of the Phase II ESA was to investigate the potential for soil and groundwater impacts relative to the RECs that were identified during the Phase I ESA; specifically, locations of specific RECs, such as suspect UST areas and chemical handling and transformer areas. As identified in the Phase II ESA, the scope consisted of the following:

- Perform a geophysical survey to evaluate potential USTs;

- Advance 21 soil probes to 16 feet below ground surface (bgs) and install temporary groundwater monitoring wells;
- Collect soil samples for analyses of volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH), PCBs, and Resource Conservation and Recovery Act (RCRA) metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver); and
- Collect groundwater samples for analyses of VOCs.

As described by AECOM, the Phase II ESA concluded the following:

Presence of Potential PCB-Impacted Soils

Trace concentrations of PCBs were detected in two of the seven soil samples collected near the former electrical substation area. The sample results (57 micrograms per kilogram [µg/kg] and 36 µg/kg) were well below the WDNR's guideline of 1,000 µg/kg for clean-up and would also not be regulated under the Toxic Substances Control Act (TSCA) according to the TSCA limit of 50 milligrams per kilogram (mg/kg) (or 50,000 µg/kg). PCBs were not detected in the other soil samples collected near the substation, transformers, or the main manufacturing building.

Historical Use of Site for Automotive Engine Manufacturing

In general, most of the site is underlain with foundry sand fill material from depths ranging from 0.5 to 11.5 feet bgs. There are elevated concentrations of PAHs and metals (arsenic and lead in particular) in soil samples collected from the foundry sand material.

Elevated lead concentrations were documented in soil samples collected from three soil borings advanced at the site. Boring GP-13 was located inside the southern portion of the main manufacturing building in a historical oil and paint storage area. The other two soil borings (GP-18 and GP-20) were located in the outside storage area east of the main manufacturing building. Soil samples collected from these three soil boring locations were from fill/foundry sand materials, but as concentrations are higher at these locations, there may be other sources for the lead.

Chlorinated VOC impacts in soils were confirmed in the southern portion of the main manufacturing building (engine test room and oil and paint storage area) and near the southeastern portion of the site (outside storage area). Additionally, there are chlorinated VOC impacts in groundwater samples collected from temporary wells located near the northwestern (main manufacturing area) and southeastern (outside storage area) portions of the site. These chlorinated VOC impacts on site appear to be related to historical degreasing operations and/or chlorinated solvent storage.

Petroleum VOC impacts in soil and/or groundwater samples were determined from samples collected in the former oil reclamation and oil and paint storage areas that are located in the southern portion of the main manufacturing building (GP-11 and GP-13, respectively). The petroleum VOC impacts in this portion of the site may be related to historical oil releases.

Underground Storage Tanks

The historical use of USTs at the site appears to have impacted soil and groundwater based on AECOM's Phase II laboratory results, particularly in the southern half of the site. There are petroleum VOC impacts in either soil or groundwater samples collected from soil borings located near all but one (UST #1) of the nine identified UST locations on the site. Light non-aqueous phase liquid (LNAPL) was present in three temporary wells located near UST #s 6, 7, and 8, corresponding to temporary well locations GP-12, GP-15 and GP-4, with the greatest amount present in the temporary well located near UST #7.

AECOM's geophysical survey identified surficial evidence of historical USTs (possible fill and vent ports) near three of the former UST areas (UST #s 4, 8, and 9). No other physical indications of USTs were found at the site, though the status of UST #s 5, 6, and 7 are unknown and the presence of undocumented USTs continues to be possible. In addition, WDOC records document the removal of 11 USTs, the former locations of which are unknown.

Hydraulic Elevator

Soil and groundwater samples from location GP-10, located adjacent to the freight elevator, had concentrations of naphthalene that exceeded applicable standards. As naphthalene was found widely distributed across the site, it is unclear whether a release from the freight elevator caused or contributed to the naphthalene detections.

Adjoining Salvage Yard (East of Site)

Based on soil and groundwater analytical results, the historical use of the adjoining property to the east as a salvage yard may have contributed to the chlorinated solvent impacts in soil (tetrachloroethene [PCE], trichloroethene [TCE], and *cis*-1,2-dichloroethene [DCE]) and groundwater (TCE and vinyl chloride), and the elevated lead concentrations in soil at GP-20; however, these impacts may also have originated on the Teledyne property. Additional investigation would be required to determine the source and extent of these impacts.

Summary of AECOM Phase II ESA Findings

The AECOM Phase II ESA described the following considerations in planning for the redevelopment of the site:

- In general, the detection of the petroleum VOCs, PAHs, and metals above WDNR generic RCLs and VOCs detected in groundwater above the NR 140 criteria, along with the presence of LNAPL, appears to be a reportable release.
- The exceedances of the WDNR soil and groundwater criteria around the six USTs will likely require additional investigation, possible remediation, and closure under the NR 700 process.
- Based on observations of fill and/or vent pipes and historical records, it appears that there may be six USTs that remain on the site. These six UST areas should be investigated during future demolition or construction activities to verify the presence of USTs, and be removed if present.
- Petroleum-impacted soils that may be excavated from the historical UST areas during future construction activities will require proper handling and disposal off site in accordance with solid and/or hazardous waste regulations.
- Based on the presence of foundry sand fill on the site, an exemption to construct under NR 500 will likely be required prior to excavating any waste/cover materials or constructing on the historical fill site.
- Fill materials that are generated as waste during the construction process will require either handling on site, under the NR 500 exemption, or disposal off site in accordance with solid and hazardous waste regulations.
- Construction and maintenance of a cap/barrier will be required for the site to prevent DC with VOC-, PAH-, and metals-impacted soil and/or groundwater that exceed the WDNR DC criteria.
- Active remediation may be required to address petroleum and/or VOC-impacted soil and/or groundwater, in order to achieve case closure and ultimate redevelopment of this site.

2.3 Building Demolition and UST Removal (Symbiont 2011-2012)

In 2011, Symbiont began building demolition activities. The activities were completed in 2012 and consisted of:

- Cleaning of on-site catch basins and storm sewer piping;
- Utility abandonment or removal;
- Asbestos, mercury, lead, and PCB waste abatement or removal;
- Building demolition and removal;
- UST and associated piping removal;
- Clay cap installation (6-inches);
- Storm sewer installation; and
- Final grading and seeding (4-inches topsoil).

No soil was removed during these activities. The clay cap was installed over areas of the site where known exceedances of WDNR industrial direct contact criteria existed.

3.0 GEOLOGY AND HYDROLOGY

This section describes the topography, geology, and hydrology at the site.

3.1 Topography

The topography of the site is relatively flat. According to the USGS 7.5-minute series topographic map of the Milwaukee, Wisconsin Quadrangle (1971), the site is approximately 660 feet amsl. Surface water flow is predominantly controlled by urban infrastructure, including paved surfaces, building structure, and stormwater sewers. The property slopes generally toward the east, to an intermittent stream with eastward flow.

3.2 Regional Geology

The surface features of the area are largely the result of glaciation. The site is underlain by soils of the Ozaukee-Morley-Mequon Association, which consist of well-drained to somewhat poorly-drained soils, with a subsoil of silty clay loam and silty clay.

Glacial till deposits below the surficial soils consist of the Oak Creek Formation; fine-textured glacial till, lacustrine clay, silt, and sand, with glaciofluvial sand and gravel (Mickelson, 1984). The underlying bedrock formation is dolomite, encountered at approximately 100 feet bgs.

Soil borings advanced during 2017 Phase II ESA activities indicated a foot of topsoil and clay underlain by fill consisting of foundry sand, silty sand, and gravel to depths of approximately 12 feet bgs. Silty clay and intermittent sand underlies the fill. Bedrock was not encountered during the Phase II ESA. Figure A-3 in Appendix A provides a site map depicting the 2017 soil boring locations and cross-section locations. Figures A-4 through A-6 are geologic cross-sections generated using the 2017 soil boring information.

Shallow groundwater flow direction is documented to the southeast. The depth to groundwater is 5 feet bgs.

3.3 Regional Hydrology

Potable water for West Allis is provided by the City of Milwaukee, Howard Avenue Water Treatment Plant, which draws its water from Lake Michigan. During 2016, the West Allis Water Utility reported the city pumped an average of 5 million gallons of water per day for residential, commercial, and industrial use through 215 miles of water main. West Allis Municipal Code prohibits use of existing groundwater wells to obtain potable water and further prohibits installation of new potable water supply wells; Chapter 16.75 (Plumbing Code: Sanitary Sewer and Water Connection) states that buildings intended for human occupancy are required to be connected to the public water supply. The City Engineering Department indicates that there is one private water supply remaining within the city; this well is located approximately five miles southwest of the site. Non-potable wells are present throughout the city; Chapter 16.76 (Plumbing Code: Private Well Abandonment and Well Operation Permit) requires an operation permit for wells installed for the purposes of irrigation and other uses.

4.0 FIELD INVESTIGATION

This section discusses the field investigations Tetra Tech performed in April and July 2017. The field investigations were performed in accordance with the Sampling and Analysis Plan (SAP), dated February 17, 2017 (Tetra Tech); the SAP Addendum dated June 30, 2017 (Tetra Tech); the Quality Assurance Project Plan (QAPP), Region 5 Targeted Brownfields Assessment Projects in Indiana, Illinois, Michigan, Minnesota, Ohio, and Wisconsin (for Hazardous Substances and/or Petroleum), dated June 30, 2014 (Tetra Tech); and the Site-Specific QAPP Addendum, dated March 7, 2017 (Tetra Tech).

The purpose of the investigations was to evaluate the RECs identified by the Phase I ESA and to further assess potential contaminant (PAHs and metals) sources discussed in the Phase II ESA (AECOM, 2010) and potential UST contamination remaining after UST removal actions. The investigations included collection and analysis of subsurface soil and groundwater to further characterize the site and provide additional data for remedial action plan preparation. Figure A-3 in Appendix A provides a site map depicting the 2017 sampling locations.

Laboratory analysis was completed by ALS Laboratories of Holland, Michigan, and CT Laboratories of Baraboo, Wisconsin. Wisconsin Soil Sampling of Jefferson, Wisconsin, and Direct Push Analytical Corporation (Direct Push) of St. Charles, Illinois, completed the Geoprobe activities.

Figures are provided in Appendix A, and tables are provided in Appendix B. Photographs taken during the Tetra Tech investigation are provided in Appendix C. Field forms are included as Appendix D, and data validation reports as Appendix E. Laboratory analytical reports are included in Attachment 1.

4.1 Soil and Groundwater Assessment – April 2017

4.1.1 Geoprobe Soil Investigation

The soil investigation was conducted between April 10 and April 24, 2017, and included 32 soil borings installed by direct push technology to assess the presence of contaminants of concern (COC), pH, percent moisture, organic carbon content, and the hydraulic conductivity of the soil beneath the site.

Between April 10 and April 24, 2017, Tetra Tech advanced 32 Geoprobe soil borings and collected 41 investigative soil samples (see Figure A-3 in Appendix A). The soil borings were advanced using a Geoprobe, which is a hydraulically driven sampling device equipped with disposable acetate liners within stainless steel sampling tubes. The probes were decontaminated before each use with an Alconox detergent-water solution and then rinsed with distilled water. The disposable liners were discarded after each use.

Thirty-two soil cores were continuously collected to the terminus of the boring, 10 to 15 feet bgs. Each soil core was screened using a photoionization detector (PID) and logged using the Unified Soil Classification System (USCS). Soil boring logs are included in Appendix D.

Forty-one soil samples were collected between April 10 and April 24, 2017 and submitted to ALS Laboratories for analysis of VOCs, PAHs, PCBs, pesticides, and RCRA metals. Grain size was also evaluated by ALS.

One sample of the soil cuttings was submitted to the laboratory for toxicity characteristic leaching procedure (TCLP) VOCs, TCLP semi-volatile organic compounds (SVOC), TCLP metals, PCBs, reactive cyanides, sulfide, corrosivity, pH, and paint filter test.

All soil samples collected for VOC analysis were collected in accordance with Method 5035, which includes 40-milliliter (mL) glass vials with polytetrafluoroethylene (PTFE)-lined septa and open-top screw caps, and containing 5 mL of methanol in one vial and 5 mL of sodium bisulfate in two vials. Soil samples were placed in a cooler with

ice and were cooled to a temperature of approximately 4 degrees Celsius (°C). The soil samples were transported to the laboratory on ice. A chain-of-custody form was prepared, signed, and dated by Tetra Tech and laboratory representatives. A copy of the chain of custody is provided with the laboratory analytical reports in Attachment 1. Field duplicate and matrix spike (MS)/matrix spike duplicate (MSD) samples were also collected in accordance with the site-specific QAPP Addendum. The soil samples were submitted to ALS.

4.1.2 Monitoring Well Installation and Sampling

Five soil borings were completed as permanent groundwater monitoring wells (MW-1 through MW-5). The MWs are constructed of 2-inch-diameter polyvinyl chloride (PVC) well screen and riser. The wells were installed to depths ranging from 13 to 15 feet bgs. The MWs were finished at grade with flush-mounted steel protective casings. Figure A-3 in Appendix A provides the locations of the MWs.

Two of the MW locations differed from proposed sampling locations; MW-3 was moved approximately 15 feet west from the original location due to refusal during drilling; and MW-4 was moved north of the sidewalk due to the presence of an electrical pole with overhead lines. MW-5 was added to the MW network because of significant PID readings detected in the field during soil boring advancement. MW construction logs are provided in Appendix D.

Water level measurements were collected from each MW on May 2, 2017; water levels ranged from 1.24 feet bgs in MW-5 to 6.65 feet bgs in MW-4.

MWs were purged using a peristaltic pump and low-flow methodology, while field parameters were measured using a QED MP-20 Flow Cell and allowed to stabilize prior to sampling. Once each MW had stabilized, groundwater samples were collected. The groundwater samples for VOC analysis were collected in 40-mL vials, pre-preserved with hydrochloric acid. The samples for metals and mercury were field-filtered through a 0.45-micron filter and collected in 250-mL high density polyethylene (HDPE) bottles, pre-preserved with nitric acid. The PCB, SVOC, and pesticide samples were collected in 1-liter amber bottles.

Groundwater samples were collected and submitted to ALS in Holland, Michigan for analyses as specified in the SAP. The groundwater samples were submitted to the laboratory under strict chain-of-custody procedures. A copy of the chain of custody is provided with the laboratory analytical reports in Attachment 1.

4.1.3 Site Hydrogeology

Groundwater is present in the shallow unconsolidated deposits in various areas across the site. Five MWs were installed and screened across the observed groundwater table. The MWs were surveyed by a Wisconsin Professional Land Surveyor following installation. Groundwater was measured at approximately 1 to 6 feet bgs. Based on the May 2017 sampling event, direction of groundwater flow is to the east-southeast. Figure A-7 in Appendix A provides a potentiometric surface map for the site.

4.1.4 Hydraulic Conductivity Testing and Grain Size

Hydraulic conductivity (slug) tests were completed on each MW. Transmissivity (baildown) tests were planned to be conducted on any MW with measurable LNAPL present; however, LNAPL was not detected in any MW during the investigations. The results of the slug testing indicate that the subsurface soil has a hydraulic conductivity averaging 1.40×10^{-3} centimeters per second (cm/sec). Appendix E includes the hydraulic conductivity results.

Soil samples were collected from each location where a MW was installed from between 12 and 14 feet bgs for grain size analysis. The soil sample results indicate that the saturated soils at the site are predominantly clay loam. The grain size results are included in Attachment 1.

4.2 Soil Assessment – July 2017

Because elevated concentrations of COCs were measured along the eastern and southeastern portions of the site, additional soil sampling was conducted on July 19, 2017; fifteen soil borings were installed to further evaluate the extent of soil contamination in these areas.

On July 19, 2017, Tetra Tech directed the advancement of 15 additional soil borings at the site (B-33 to B-47). Each soil boring was screened using a PID and logged using the USCS. The soil borings were advanced using a track-mounted Geoprobe. The probes were decontaminated before each use with an Alconox detergent-water solution and then rinsed with distilled water. The disposable liners were discarded after each use.

Fifteen soil cores were continuously collected to the terminus of the borings, which was 15 feet bgs. Soil samples were inspected, screened in the field with a PID, and described on soil boring logs, which are included in Appendix D.

Fifteen soil samples were collected on July 19, 2017 as specified in the SAP and submitted to CT Laboratories of Baraboo, Wisconsin for analysis of PAHs and RCRA metals. Three of the soil samples were also submitted for VOC analyses; these included SB-38 (8 to 10 feet bgs), SB-39 (2 to 4 feet bgs), and SB-40 (2 to 4 feet bgs).

4.3 Investigation-Derived Waste

A sample of the soil cuttings was collected on April 24, 2017 and submitted to ALS Laboratories for analysis of disposal parameters: TCLP VOCs, TCLP SVOCs, TCLP metals, PCBs, reactive cyanides, sulfides, corrosivity, pH, and paint filter test.

Results indicated that the soil cuttings do not exceed hazardous waste criteria, and were disposed of as non-hazardous waste in September 2017. Results are provided in Table 5 of Appendix B; laboratory reports are included in Attachment 1.

5.0 SUMMARY OF ANALYTICAL RESULTS

Tetra Tech compared laboratory analytical results from investigation samples collected during the field investigations with WDNR remediation objectives for industrial and non-industrial properties.

5.1 Summary of Analytical Results for Soil

Laboratory analytical results for soil boring samples collected during the April and July 2017 investigations indicated samples exceeding the WDNR non-industrial DC RCLs for VOCs, SVOCs, and metals; WDNR industrial DC RCLs for SVOCs and metals; and the WDNR groundwater pathway RCLs for VOCs, SVOCs, PCBs, and metals.

Benzene was detected at a concentration (2.0 mg/kg) exceeding the WDNR non-industrial DC RCL of 1.6 mg/kg in one sample collected from the site (SB11 [6-8]). Benzene was also detected at concentrations exceeding the WDNR groundwater pathway RCL of 0.0051 mg/kg in 13 samples collected from the site: SB02 [6-8], SB05 [8-10]DUP, SB10 [6-8], SB11 [6-8], SB12 [6-8], SB13 [4-6], SB22 [4-6], SB22 [8-10], SB28 [4-6], SB29 [4-6], SB 30 [0-2], SB30-[4-6], and SB31 [2-4]; with concentrations ranging from 0.025 J+ (estimated, high bias) in SB28 [4-6] to 2.0 mg/kg in SB11 [6-8].

Ethylbenzene was detected at concentrations exceeding the WDNR non-industrial DC RCL of 8.02 mg/kg in two samples: SB10 [6-8] and SB11 [6-8]; with concentrations ranging from 9.4 mg/kg in SB11 [6-8] to 14.0 mg/kg in SB10 [6-8]. Ethylbenzene was also detected at concentrations exceeding the WDNR groundwater pathway RCL of 1.57 mg/kg in five samples: SB02 [6-8], SB10 [6-8], SB11 [6-8], SB12 [6-8], SB13 [4-6]; with concentrations ranging from 1.6 mg/kg in SB13 [4-6] to 14.0 mg/kg in SB10 [6-8].

Toluene was detected at a concentration exceeding the WDNR groundwater pathway RCL of 1.072 mg/kg in sample SB11 [6-8], with a concentration of 1.4 mg/kg.

Xylenes (total) were detected at concentrations exceeding the WDNR groundwater pathway RCL of 3.96 mg/kg in four samples: SB02 [6-8], SB10 [6-8], SB11 [6-8], SB29 [4-6]; with concentrations ranging from 7.9 mg/kg in SB02 [6-8] to 36.0 mg/kg in SB10 [6-8].

Methylene chloride was detected at concentrations exceeding the WDNR groundwater pathway RCL of 0.0026 mg/kg in 12 samples: SB11 [6-8], SB12 [6-8], SB13 [4-6], SB16 [2-4], SB25 [2-4], SB25 [4-6], SB26 [4-6], SB27 [4-6], SB28 [2-4], SB28 [4-6], SB30-[4-6], SB31 [2-4]; with concentrations ranging from 0.037 J (estimated) mg/kg in SB13 [4-6] to 0.065 in SB25 [4-6].

PCE was detected at concentrations exceeding the WDNR groundwater pathway RCL of 0.0045 mg/kg in three samples: SB03 [8-10], SB19 [2-4], and SB39 [2-4]; with concentrations of 0.079 mg/kg, 0.039 mg/kg, and 0.0496 J mg/kg, respectively.

TCE exceeded the WDNR non-industrial DC RCL of 1.3 mg/kg in one sample (SB39 [2-4]) at a concentration of 6.83 J+ mg/kg. TCE also exceeded the WDNR groundwater pathway RCL of 0.0036 mg/kg in two samples: SB31 [2-4] and SB39 [2-4]; at concentrations of 0.17 mg/kg and 6.83 J+ mg/kg, respectively.

PAHs detected at concentrations exceeding WDNR non-industrial DC RCLs included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and naphthalene. Benzo(a)anthracene exceeded the WDNR non-industrial DC RCL of 1.14 mg/kg in eight samples, SB17 [2-4], SB18 [4-5], SB19 [2-4], SB22 [4-6], SB28 [4-6], SB39 [2-4], SB46 [4-8], and SB47 [2-4]; with concentrations ranging from 1.3 mg/kg in SB22 [4-6] to 52 mg/kg in SB18

[4-5]. Benzo(a)pyrene exceeded the WDNR non-industrial DC RCL of 0.115 mg/kg in 24 samples: SB05 [8-10], SB06 [4-6], SB13 [4-6], SB17 [2-4] SB18 [4-5], SB19 [2-4], SB20 [2-4], SB25 [2-4], SB26 [4-6], SB27 [4-6], SB28 [2-4], SB28 [4-6], SB30 [4-6], SB31 [2-4], SB35 [6-8], SB36 [2-4], SB39 [2-4], SB40 [2-4], SB41 [2-6], SB42 [4-6], SB43 [2-4], SB45 [4-6], SB46 [4-8], and SB47 [2-4]; with concentrations ranging from 0.12 mg/kg in SB27 [4-6] to 36 mg/kg in SB18 [4-5]. Benzo(b)fluoranthene exceeded the WDNR non-industrial DC RCL of 1.15 mg/kg in 10 samples: SB17 [2-4] SB18 [4-5], SB19 [2-4], SB25 [2-4], SB28 [4-6], SB36 [2-4], SB39 [2-4], SB43 [2-4], SB45 [4-6]SB46 [4-8], and SB47 [2-4]; with concentrations ranging from 1.29 mg/kg in SB36 [2-4] to 44 mg/kg in SB18 [4-5]. Dibenz(a,h)anthracene exceeded the WDNR non-industrial DC RCL of 0.115 mg/kg in 14 samples: SB13 [4-6], SB18 [4-5], SB25 [2-4], SB28 [2-4], SB28 [4-6], SB30 [4-6], SB36 [2-4], SB39 [2-4], SB41 [2-6], SB42 [4-6], SB43 [2-4], SB45 [4-6], SB46 [4-8], and SB47 [2-4]; with concentrations ranging from 0.12 mg/kg in SB30 [4-6] to 7.59 J mg/kg in SB46 [2-4]DUP. Indeno(12,2,3-cd)pyrene exceeded the WDNR non-industrial DC RCL of 1.15 mg/kg in seven samples: SB17 [2-4] SB18 [4-5], SB28 [4-6], SB39 [2-4], SB43 [2-4], SB46 [4-8], and SB47 [2-4]; with concentrations ranging from 1.4 mg/kg in SB17 [2-4] and SB28 [4-6] to 11 mg/kg in SB18 [4-5]. Naphthalene exceeded the WDNR non-industrial DC RCL of 5.52 mg/kg in one sample, SB22 [4-6], at a concentration of 6.5 mg/kg.

PAHs detected at concentrations exceeding WDNR industrial DC RCLs included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene. Benzo(a)anthracene exceeded the industrial DC RCL of 20.8 mg/kg in one sample, SB18 [4-5], at a concentration of 52 mg/kg. Benzo(a)pyrene exceeded the industrial DC RCL of 1.76 mg/kg in six samples: SB17 [2-4] SB18 [4-5], SB39 [2-4], SB43 [2-4], SB46 [4-8], and SB47 [2-4]; with concentrations ranging from 2.7 mg/kg in SB17 [2-4] to 36 mg/kg in SB18 [4-5]. Benzo(b)fluoranthene exceeded the industrial DC RCL of 21.1 mg/kg in one sample, SB18 [4-5], with a concentration of 44 mg/kg. Dibenz(a,h)anthracene exceeded the industrial DC RCL of 2.11 mg/kg in five samples: SB18 [4-5], SB39 [2-4], SB43 [2-4], SB46 [4-8], and SB47 [2-4]; with concentrations ranging from 2.98 mg/kg in SB46 [4-8] to 7.59 mg/kg in SB46 [4-8]DUP.

PAHs detected at concentrations exceeding the WDNR groundwater pathway RCLs include benzo(a)anthracene (18 samples), benzo(b)fluoranthene (22 samples), chrysene (25 samples), and naphthalene (9 samples).

Aroclor 1254 was detected at concentrations exceeding the WDNR groundwater pathway RCL of 0.0094 mg/kg in four samples, with concentrations ranging from 0.051 J mg/kg in SB25 [2-4] to 0.098 mg/kg in SB17 [2-4].

Aroclor 1260 was detected at concentrations exceeding the WDNR groundwater pathway RCL of 0.0094 mg/kg in four samples, with concentrations ranging from 0.020 J mg/kg in SB32 [2-4] to 0.052 J mg/kg in SB17 [2-4].

No pesticides exceeded any standard in any sample collected.

Arsenic was detected at concentrations ranging from 2.4 mg/kg (SB26 [4-6]) to 50.1 mg/kg (SB40 [2-4]). Sixteen samples exceeded the WDNR non-industrial DC RCL of 0.677 mg/kg, the industrial DC RCL of 3 mg/kg, the groundwater pathway RCL of 0.584 mg/kg, and the background threshold of 8 mg/kg.

Barium was detected at concentrations ranging from 39 mg/kg (SB25 [4-6]) to 2,470 mg/kg (SB44 [2-4]). Barium did not exceed the WDNR industrial DC RCL value of 100,000 mg/kg in any sample. The WDNR groundwater pathway RCL and the background threshold for barium was exceeded in six samples.

Cadmium concentrations ranged from non-detect (multiple samples) to 53.4 mg/kg (SB40 [2-4]). Cadmium did not exceed the WDNR industrial DC RCL value of 985 mg/kg in any sample. The WDNR groundwater pathway RCL and the background threshold for cadmium was exceeded in five samples.

Lead was detected at concentrations ranging from 11 mg/kg (SB07 [6-8]) to 1,100 mg/kg (SB36 [2-4]). Concentrations exceeded the WDNR non-industrial DC RCL of 400 mg/kg and the background threshold in eight samples: SB17 [2-4], SB18 [4-5], SB19 [2-4], SB22 [4-6], SB36 [2-4], SB39 [2-4], SB43 [2-4], and SB46 [4-8]. Lead concentrations detected in samples SB22 [4-6], SB36 [2-4] and SB46 [4-8] also exceeded the WDNR industrial DC RCL of 800 mg/kg and the background threshold. The WDNR groundwater pathway RCL for lead of 27 mg/kg and the background threshold was exceeded in 24 samples.

Mercury was detected at concentrations ranging from 0.012 J mg/kg (SB12 [6-8]) to 1.0 mg/kg (SB35 [6-8]). Mercury did not exceed the WDNR industrial DC RCL value of 3.13 mg/kg in any sample. The WDNR groundwater pathway RCL for mercury was exceeded in 11 samples. A background threshold value for mercury has not been established.

Selenium concentrations ranged from non-detect (multiple samples) to 3.9 J mg/kg (SB35 [6-8]). Selenium did not exceed the WDNR industrial DC RCL value of 5,840 mg/kg in any sample. The WDNR groundwater pathway RCL for selenium was exceeded in 46 samples. A background threshold value for selenium has not been established.

Silver was detected at concentrations ranging from 0.028 J mg/kg (SB21 [2-4]) to 1.9 mg/kg (SB43 [2-4]). Silver did not exceed the WDNR industrial DC RCL value of 5,840 mg/kg in any sample. The WDNR groundwater pathway RCL for silver was exceeded in six samples. A background threshold value for silver has not been established.

Locations of soil sample exceedances are provided in Figures A-8 through A-10 in Appendix A. Tables 1 through 4 in Appendix B summarize the analytical results for soil samples. The results of the waste characterization sample are summarized in Table 5. Laboratory analytical reports are provided in Attachment 1.

5.2 Summary of Analytical Results for Groundwater

VOCs, PAHs, and metals were detected in groundwater samples. PCBs and pesticides were not detected in any groundwater samples.

Benzene exceeded its NR140 Enforcement Standard (ES) of 5.0 micrograms per liter (µg/L) at two locations, MW-2 and MW-4, located in the southern portion of the site, at concentrations of 58 µg/L and 7.9 µg/L, respectively. No other VOC analyzed exceeded any standard.

Three PAHs were detected above NR140 standards. Benzo(a)pyrene did not exceed the NR140 ES of 0.2 µg/L, but did exceed the NR140 preventive action limit (PAL) of 0.02 µg/L at two locations, MW-4 and MW-5, with concentrations of 0.2 µg/L and 0.15 µg/L. Benzo(b)fluoranthene exceeded the NR140 ES of 0.2 µg/L at two locations, MW-4 and MW-5, with concentrations of 0.29 µg/L and 0.22 µg/L, respectively. Naphthalene exceeded the NR140 PAL of 10 µg/L at one location, MW-2, with a concentration of 26 µg/L.

Two metals exceeded the NR140 PALs; arsenic exceeded the NR140 PAL of 1.0 µg/L in all five groundwater samples, with concentrations ranging from 1.1 µg/L at MW-3 to 3.2 J µg/L at MW-2. Barium exceeded the NR140 PAL of 400 µg/L at MW-2, with a concentration of 630 µg/L.

Locations of groundwater sample exceedances are provided in Figure A-11 in Appendix A. Table 6 in Appendix B summarizes the groundwater sample analytical results. Laboratory analytical reports are provided in Attachment 1.

6.0 DATA QUALITY ASSURANCE/QUALITY CONTROL

Tetra Tech collected field quality assurance and quality control (QA/QC) samples and also performed data validation of the analytical results per the Generic QAPP and the site-specific QAPP Addendums.

6.1 Field QA/QC

Field QA/QC samples were obtained and submitted for analysis during the field investigation activities for use in assessing the quality of the data resulting from the field sampling program. Field QA/QC samples included the following:

- Duplicates: Duplicate samples were collected in the field and submitted to the laboratory at a rate of 1 per every 10 samples and provide a measure of laboratory precision and matrix variability.
- Matrix Spike Samples: Additional aliquots of investigative samples were provided to the laboratory at a rate of 1 per every 20 samples for matrix spike/matrix spike duplicate analysis. Analyses were performed to provide an indication of potential matrix interference with the analytical results.

6.2 Analytical Data Validation

The laboratory analytical data from Tetra Tech's April 2017 and July 2017 investigations were validated by a chemist and the data may be used, as qualified. A copy of the data validation reports for the Tetra Tech investigations are provided as Appendix E.

7.0 CONCLUSIONS

At the request of the EPA, Tetra Tech was retained to conduct a Phase II ESA at the Former Teledyne Site located at 1910 South 53rd Street in the City of West Allis, Milwaukee County, Wisconsin. This ESA was performed to fulfill the requirements of a SI in accordance with Chapter NR716 of the Wisconsin Administrative Code. The site was evaluated for industrial exposure because the anticipated end use of the site is industrial development. However, non-industrial exposure routes were also evaluated for completeness.

The purpose of the investigations was to evaluate the RECs identified by the Phase I ESA and to further assess potential contaminant (VOC, PAH, and metals) sources provided in the 2010 Phase II ESA. The investigations included collection and analysis of subsurface soil and groundwater to further characterize the site and provide additional data for remedial action plan preparation.

WDNR standards that apply to the site are industrial-commercial DC, the groundwater pathway, and the NR 140 ES for groundwater ingestion exposure. COCs identified at the site that exceed applicable standards are listed as follows:

CONTAMINANTS OF CONCERN

Exposure Route	Confirmed COCs
Non-Industrial Exposure Route	
Soil Direct-Contact RCL	• Benzene • Ethylbenzene • Trichloroethene • Benz(a)anthracene • Benzo(a)pyrene • Benzo(b)fluoranthene • Dibenz(a,h)anthracene • Indeno(1,2,3-cd)pyrene • Naphthalene • Arsenic • Lead
Industrial Exposure Route	
Soil Direct-Contact RCL	• Benz(a)anthracene • Benzo(a)pyrene • Benzo(b)fluoranthene • Dibenz(a,h)anthracene • Arsenic • Lead

Exposure Route	Confirmed COCs
Groundwater Ingestion Exposure Route	
Groundwater Pathway RCL (Soil)	• Benzene • Ethylbenzene • Toluene • Xylenes, Total • Methylene chloride • Tetrachloroethene • Trichloroethene • Benz(a)anthracene • Benzo(b)fluoranthene • Chrysene • Naphthalene • Aroclor 1254 • Aroclor 1260 • Arsenic • Barium • Cadmium • Lead • Mercury • Selenium • Silver
Preventative Action Limit (Groundwater)	• Benzene • Benzo(a)pyrene • Benzo(b)fluoranthene • Naphthalene • Arsenic • Barium
Enforcement Standard (Groundwater)	• Benzene • Benzo(b)fluoranthene

A 6-inch clay cap currently exists at the site. Based on the soil sampling performed at the site, exceedances of WDNR industrial DC and Groundwater Pathway RCLs have been identified. Groundwater sample results exceed WDNR PALs and ESs. VOCs are present in both soil and groundwater. The following are recommended:

- A remedial action plan should be developed to eliminate direct contact with subsurface soils using engineered barriers (clay, concrete, or asphalt) (see Appendix G).
- Additional groundwater monitoring should be conducted for exceedances of WDNR ESs.
- A potential for vapor intrusion exists because of VOCs detected at the site. Therefore, any occupied building will require a pre-mitigative vapor barrier.

8.0 REFERENCES

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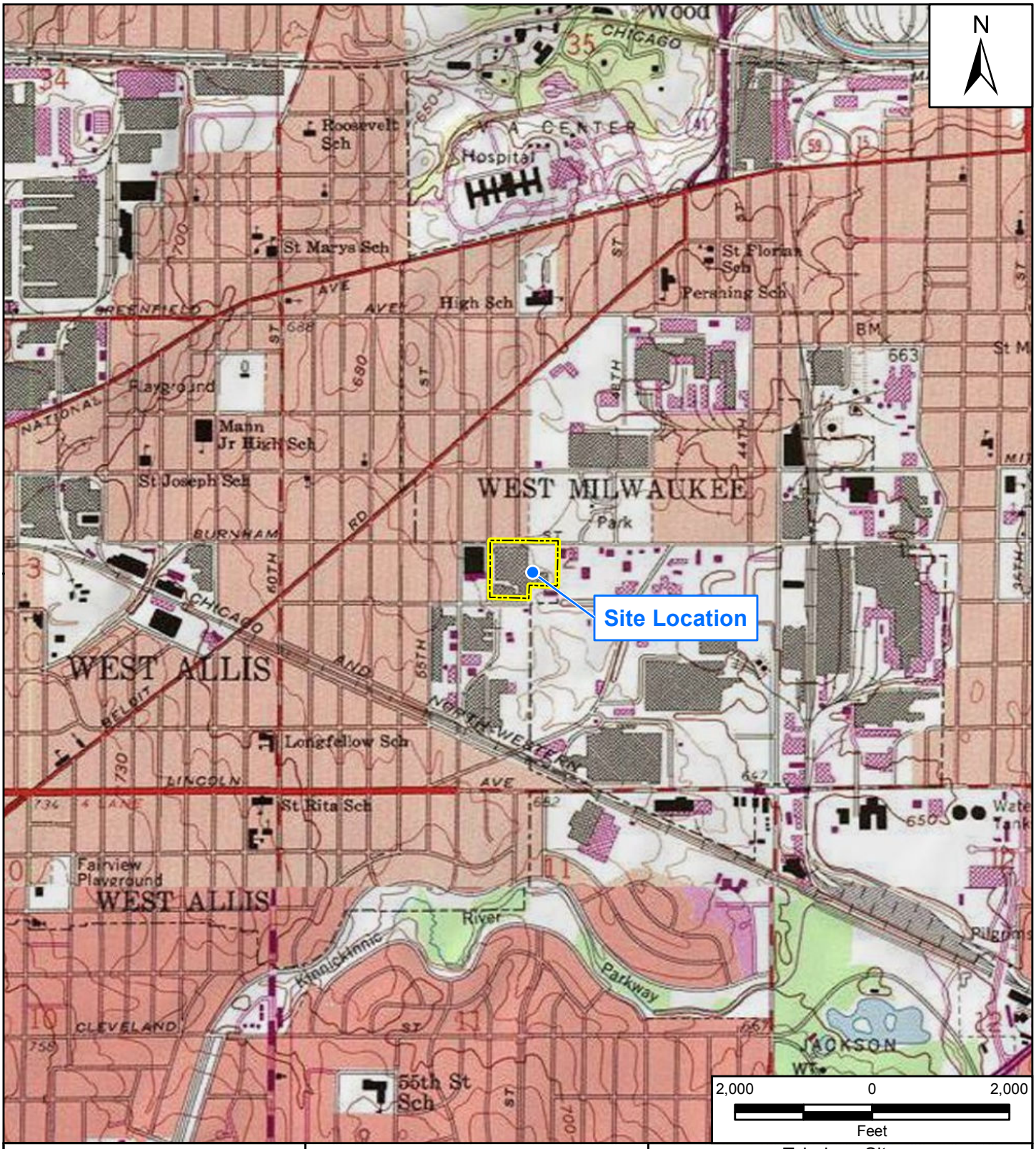
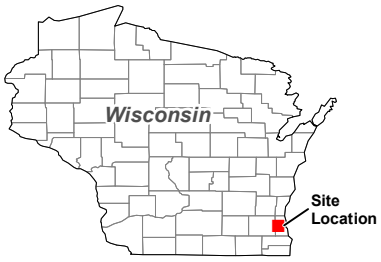
United States Geological Survey (USGS). 1971. 7.5-Minute Series Topographic Map of Milwaukee, Wisconsin, Quadrangle.

APPENDIX A
FIGURES

FIGURE A-1	SITE LOCATION MAP
FIGURE A-2	SITE LAYOUT
FIGURE A-3	2017 SAMPLING LOCATIONS and GEOLOGIC CROSS SECTIONS – PLAN VIEW
FIGURE A-4	GENERALIZED GEOLOGIC CROSS-SECTION A-A’
FIGURE A-5	GENERALIZED GEOLOGIC CROSS-SECTION B-B’
FIGURE A-6	GENERALIZED GEOLOGIC CROSS-SECTION C-C’
FIGURE A-7	POTENTIOMETRIC SURFACE MAP
FIGURE A-8	WDNR NON-INDUSTRIAL DIRECT CONTACT EXCEEDANCES
FIGURE A-9	WDNR INDUSTRIAL DIRECT CONTACT EXCEEDANCES
FIGURE A-10	WDNR GROUNDWATER PATHWAY EXCEEDANCES
FIGURE A-11	WDNR GROUNDWATER ENFORCEMENT STANDARD EXCEEDANCES



Reference Map



Legend

Approximate Site Boundary

Source: USGS 7.5-Minute Topographic Quadrangle Map: Milwaukee, WI 1971

Teledyne Site
1910 S 53rd Street
West Allis, Milwaukee County, Wisconsin

Figure A-1
SITE LOCATION MAP

TETRA TECH

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Prepared By: Tetra Tech

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TDD No.: S05-0003-1612-004

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree

Reference Map

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Approximate Site Boundary

Teledyne Site
1910 S 53rd Street
West Allis, Milwaukee County, Wisconsin

Figure A-2
Site Layout Map

TETRA TECH

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Reference Map

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- Soil Boring and Monitoring Well Location
- Soil Sample Location
- UST Location
- Approximate Site Boundary

Teledyne Site
1910 S 53rd Street
West Allis, Milwaukee County, Wisconsin

Figure A-3
2017 Sampling Locations and Geologic Cross Sections - Plan View

TETRA TECH

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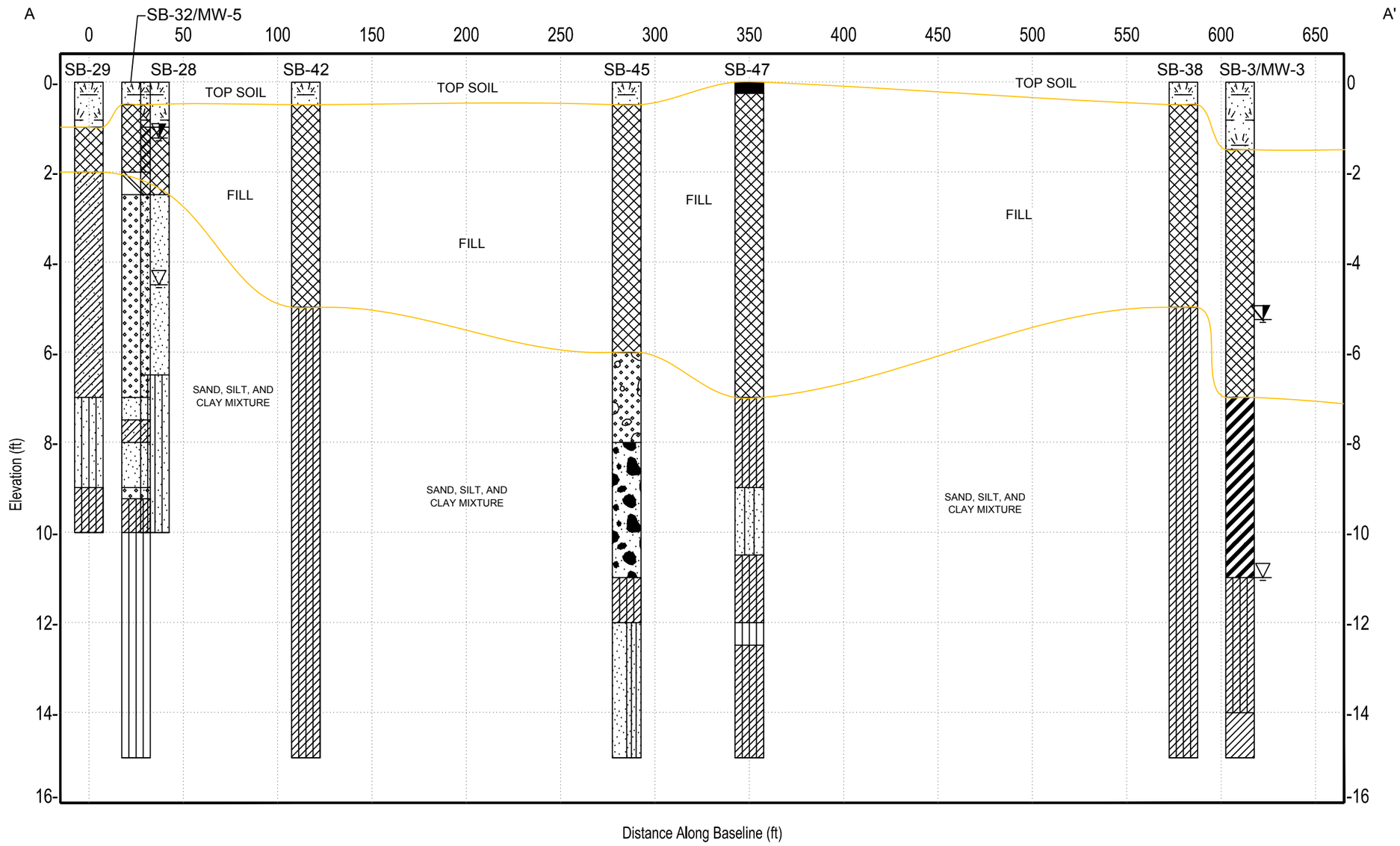

LEGEND

- Topsoil
- Fill (made ground)
- USCS High Plasticity Clay
- USCS Low Plasticity Silty Clay
- USCS Low Plasticity Clay
- USCS Poorly-graded Sand
- USCS Sandy Silt
- USCS Low Plasticity Sandy Clay
- USCS Low to High Plasticity Clay
- USCS Well-graded Sand
- Water Level at Time of Drilling
- Water Level After Drilling

TELEDYNE SITE
1910 S 53RD STREET
WEST ALLIS, MILWAUKEE COUNTY, WISCONSIN

Figure A-4
Generalized Geologic
Cross-Section A - A'

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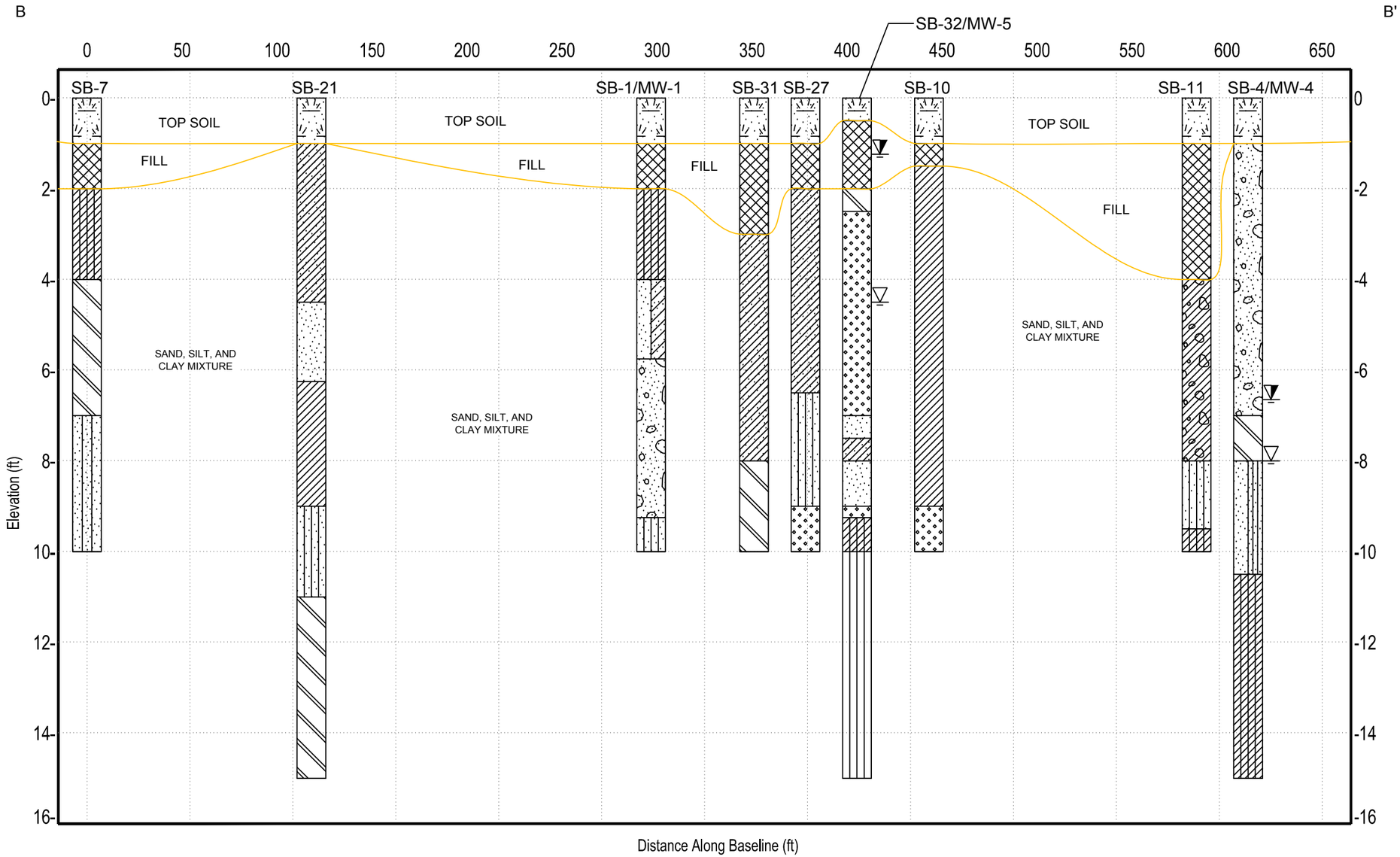

LEGEND

- Topsoil
- Fill (made ground)
- USCS Low Plasticity Silty Clay
- USCS Poorly-graded Sand with Clay
- USCS Poorly-graded Gravelly Sand
- USCS Sandy Silt
- USCS Low to High Plasticity Clay
- USCS Poorly-graded Sand with Silt
- USCS Silty Sand
- USCS Low Plasticity Clay
- Water Level at Time of Drilling
- Water Level After Drilling

TELEDYNE SITE
1910 S 53RD STREET
WEST ALLIS, MILWAUKEE COUNTY, WISCONSIN

Figure A-5
Generalized Geologic
Cross-Section B - B'

TETRA TECH

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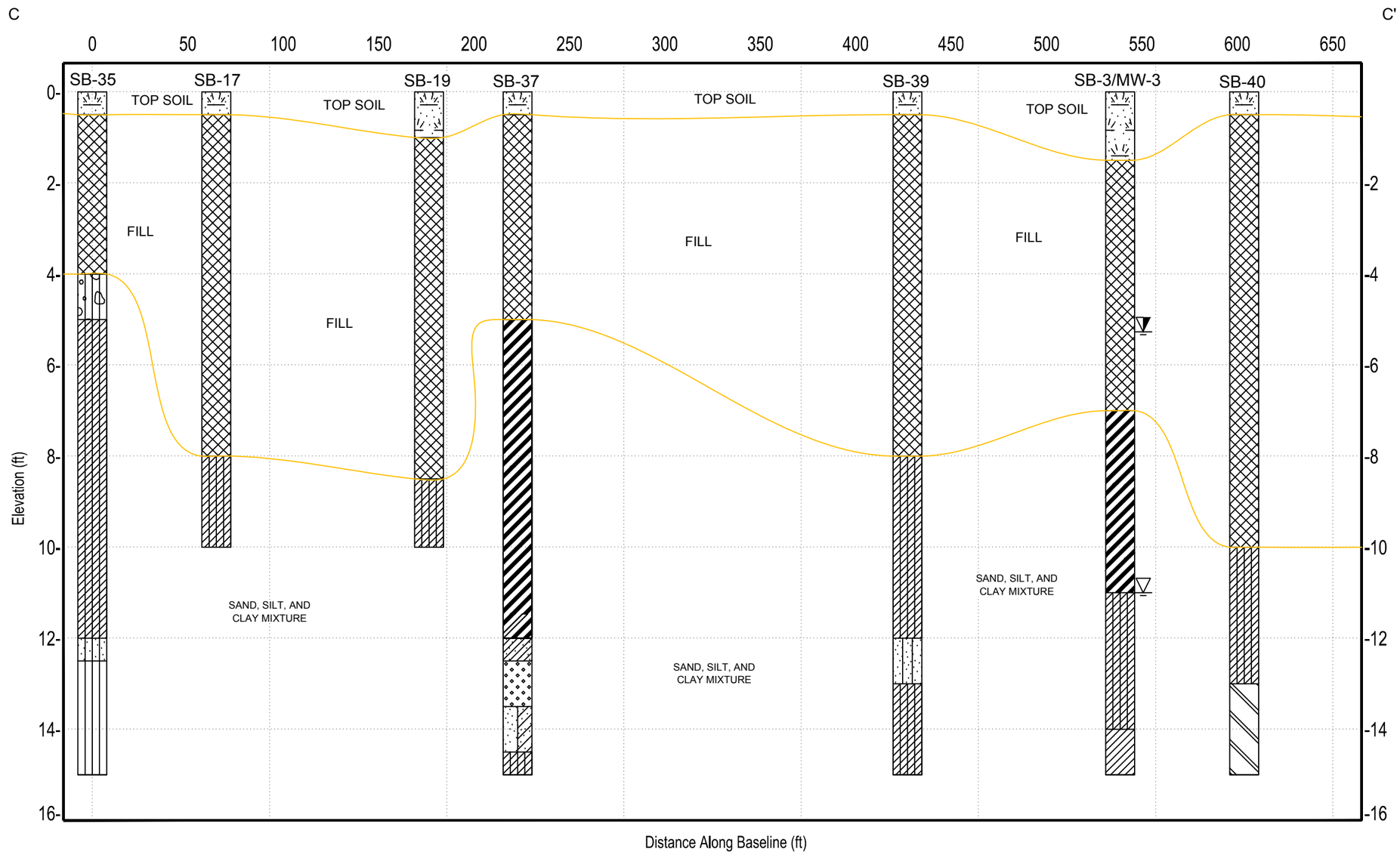

LEGEND

- Topsoil
- Fill (made ground)
- USCS High Plasticity Clay
- USCS Low Plasticity Silty Clay
- USCS Low Plasticity Clay
- USCS Gravelly Silt
- USCS Sandy Silt
- USCS Silt
- USCS Low Plasticity Sandy Clay
- USCS Well-graded Sand
- Water Level at Time of Drilling
- Water Level After Drilling

TELEDYNE SITE
1910 S 53RD STREET
WEST ALLIS, MILWAUKEE COUNTY, WISCONSIN

Figure A-6
Generalized Geologic
Cross-Section C - C'

TETRA TECH

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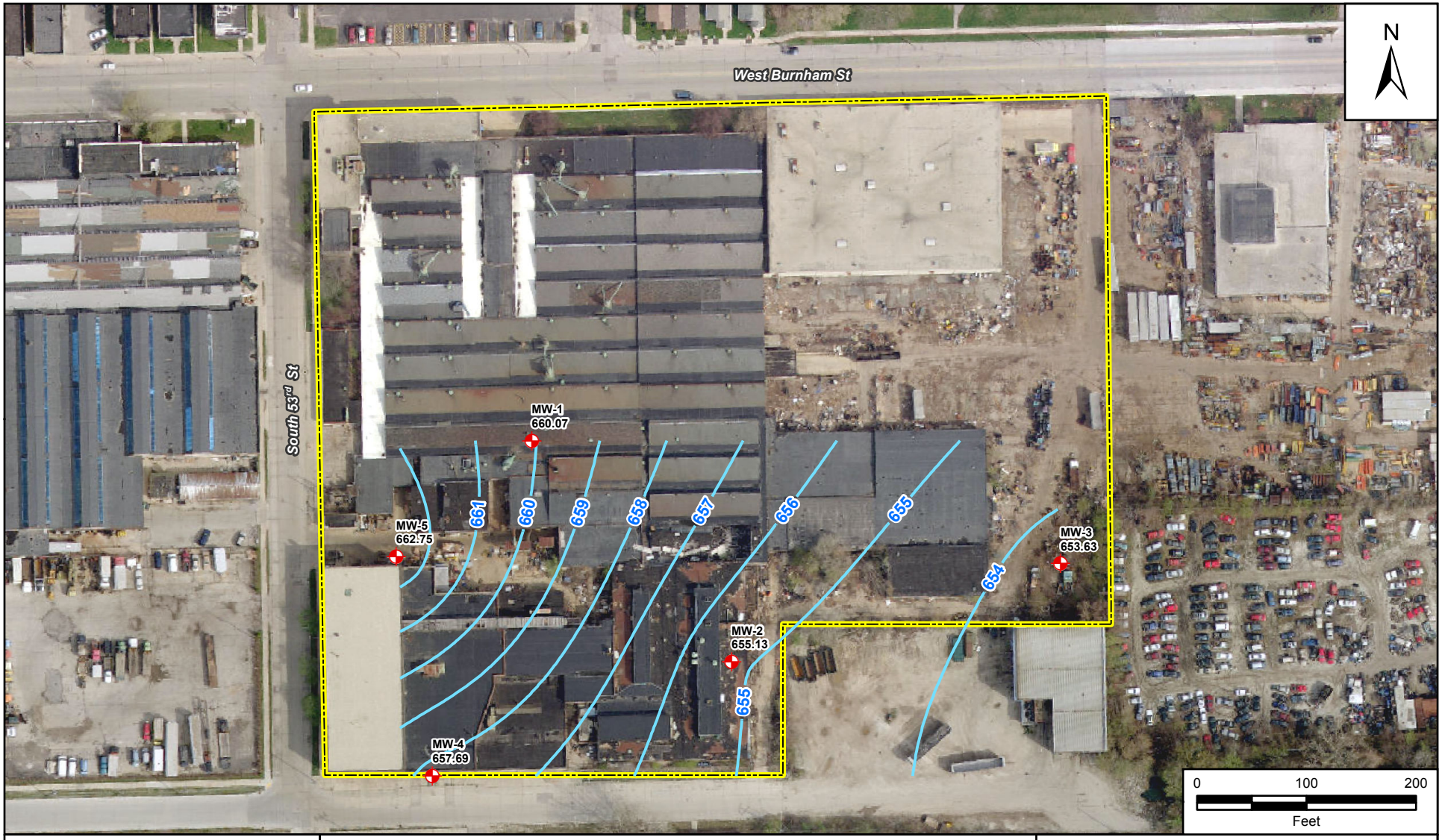

Reference Map

Legend

- Monitoring Well Locaiton
- Approximate Site Boundary
- Groundwater Contour - 1 foot interval

Teledyne Site
1910 S 53rd Street
West Allis, Milwaukee County, Wisconsin

Figure A-7
Potentiometric Surface Map

TETRA TECH

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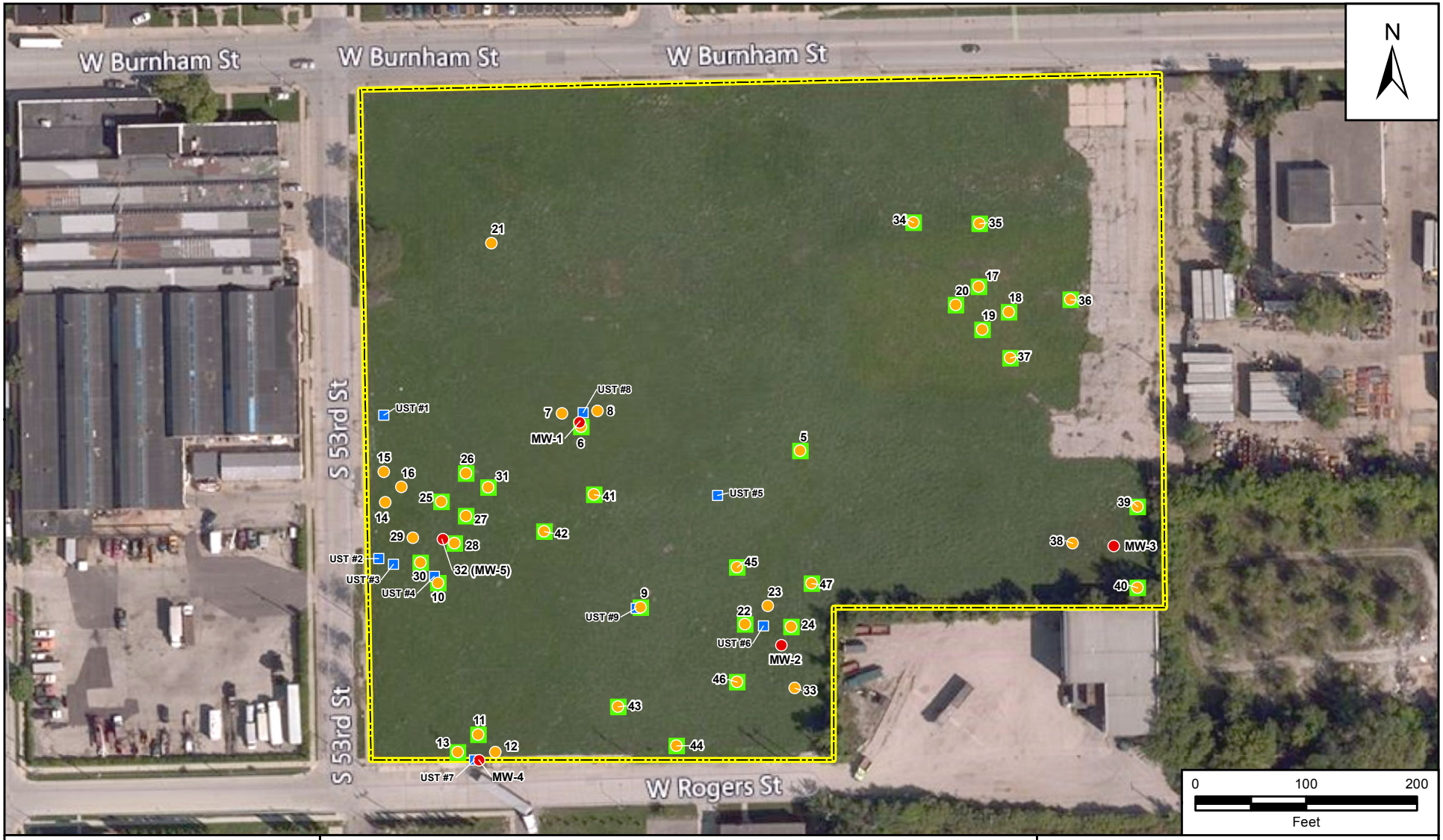

Reference Map

Legend

- Non-Industrial Direct Contact Exceedance
- Soil Boring and Monitoring Well Location
- Soil Sample Location
- UST Location
- Approximate Site Boundary

Teledyne Site
1910 S 53rd Street
West Allis, Milwaukee County, Wisconsin

Figure A-8
WDNR Non-Industrial Direct Contact Exceedances

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

File Path: G:\G\G9026-START IV\Wisconsin\Teledyne Site\mxd\2017-10\FigA8-WDNR_NonIndustrialExceedances.mxd

Date Saved: 10/13/2017

EPA Contract No.: EP-S5-13-01

TDD No.: S05-0003-1612-004

Coordinate System: GCS WGS 1984
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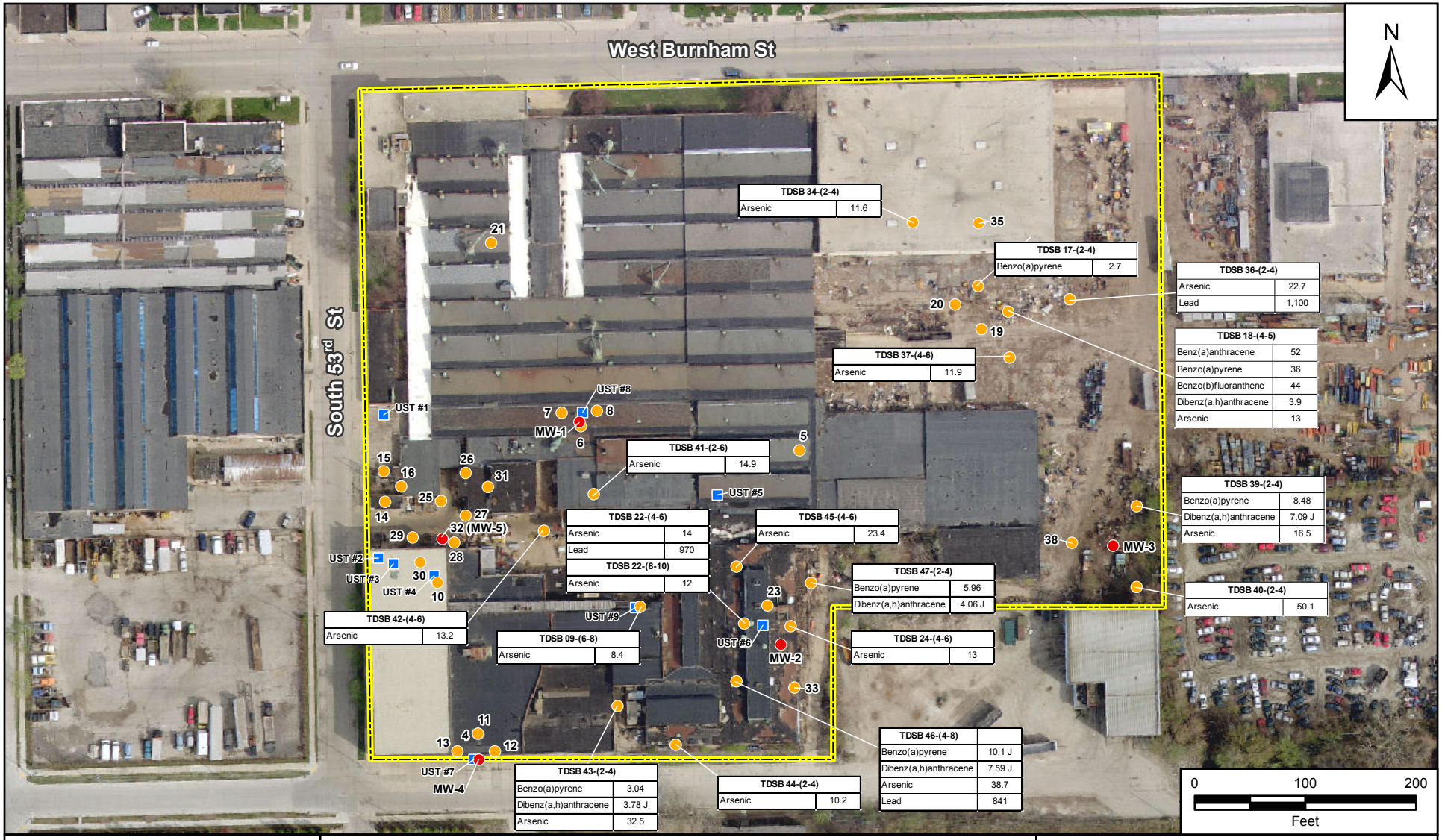


Reference Map

Legend

- Soil Boring and Monitoring Well Location
- Soil Sample Location
- UST Location
- Approximate Site Boundary

All results presented in units of milligrams per kilogram (mg/kg)

J = The analyte was positively identified; the associated value is an approximate concentration

Teledyne Site
1910 S 53rd Street
West Allis, Milwaukee County, Wisconsin

Figure A-9
WDNR Industrial Direct Contact Exceedances

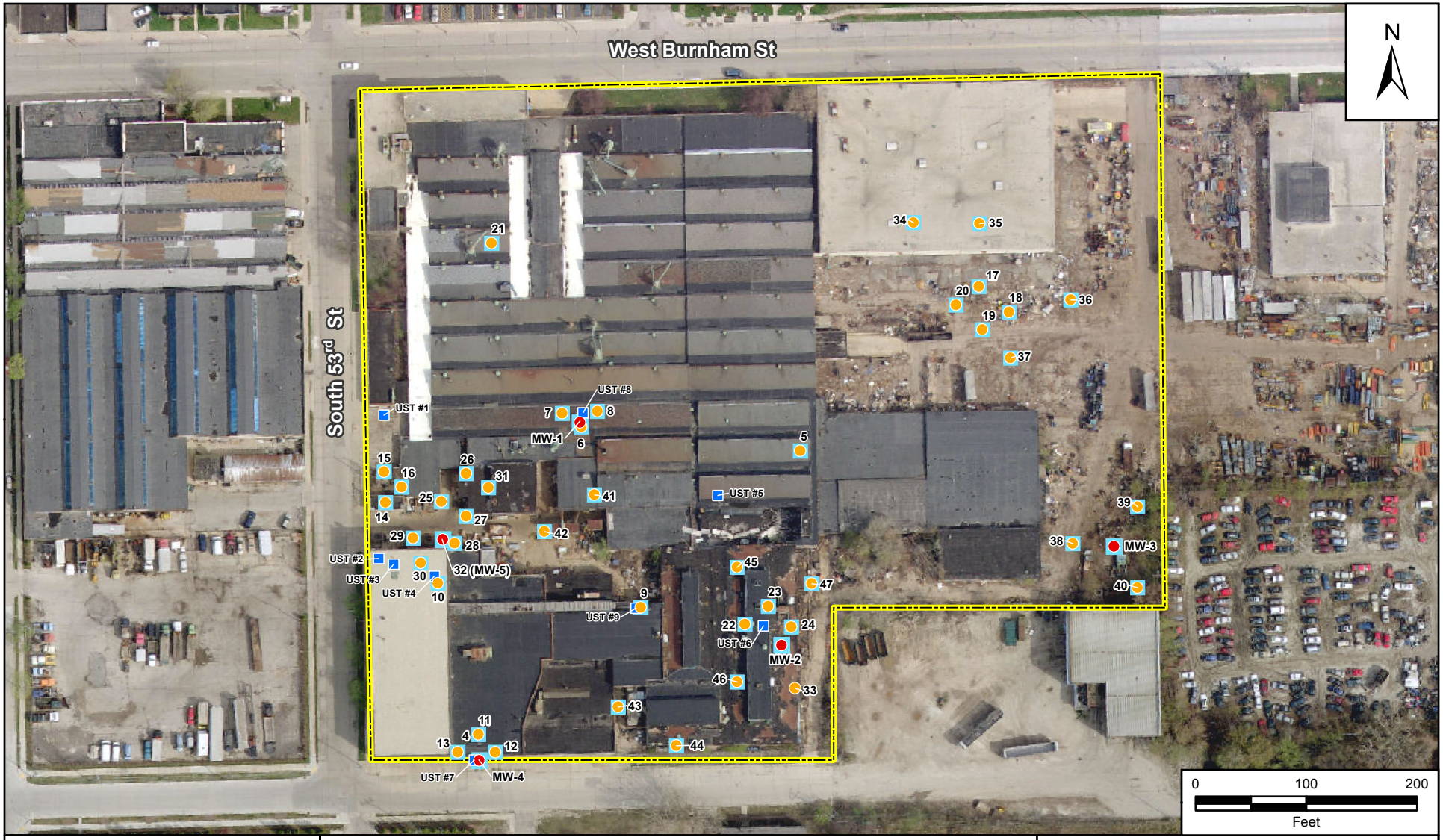
TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

File Path: G:\G\G9026-START IV\Wisconsin\Teledyne Site\mxd\2017-08\FigA5-IndustrialExceedances.mxd

Date Saved: 8/29/2017 | EPA Contract No.: EP-S5-13-01 | TDD No.: S05-0003-1612-004

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree



Reference Map

Legend

- Soil Boring and Monitoring Well Location
- Soil Sample Location
- UST Location
- Groundwater Pathway Exceedance
- Approximate Site Boundary

Teledyne Site
1910 S 53rd Street
West Allis, Milwaukee County, Wisconsin

Figure A-10
WDNR Groundwater Pathway Exceedances

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

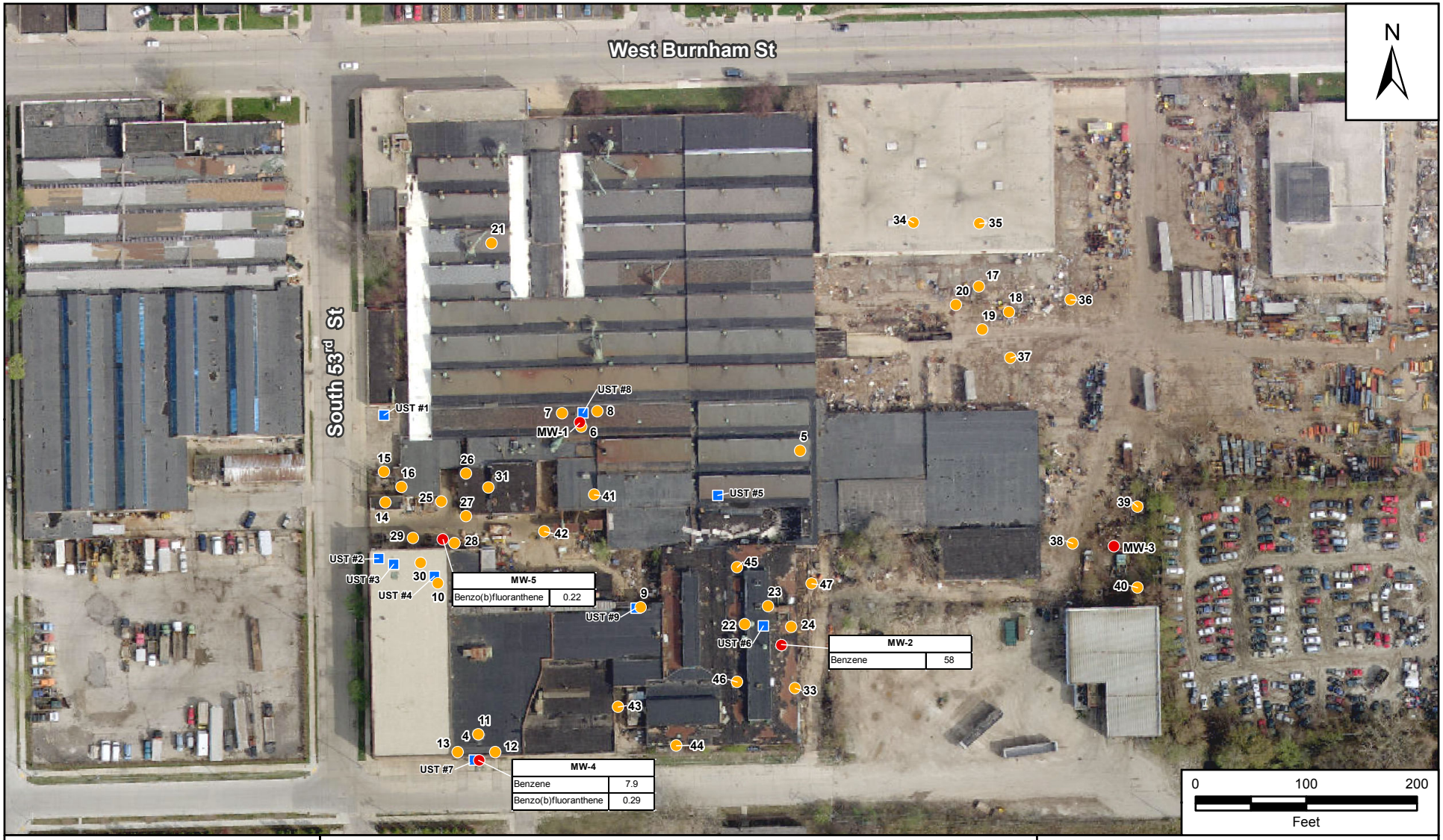
File Path: G:\G\G9026-START IV\Wisconsin\Teledyne Site\mxd\2017-08\FigA6-GWPathwayExceedances.mxd

Date Saved: 8/29/2017

EPA Contract No.: EP-S5-13-01

TDD No.: S05-0003-1612-004

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree



Reference Map

Legend

- Soil Boring and Monitoring Well Location
- Soil Sample Location
- UST Location
- Approximate Site Boundary

All results presented in units of milligrams per Liter (mg/L)

Teledyne Site
1910 S 53rd Street
West Allis, Milwaukee County, Wisconsin

Figure A-11
WDNR Groundwater Enforcement Standard Exceedances

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

File Path: G:\G\G9026-START IV\Wisconsin\Teledyne Site\mxd\2017-08\FigA7-GWEnforcementStandardExceedances.mxd

Date Saved: 8/29/2017 | EPA Contract No.: EP-S5-13-01 | TDD No.: S05-0003-1612-004

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree

APPENDIX B
TABLES

SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL

TABLE B-1: VOCs

TABLE B-2: SVOCs

TABLE B-3: PCBs AND PESTICIDES

TABLE B-4: METALS

TABLE B-5: TCLP WASTE PROFILE

SUMMARY OF GROUNDWATER RESULTS

TABLE B-6: GROUNDWATER LABORATORY ANALYTICAL RESULTS

TABLE B-1
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL DATA - VOCS
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 01-(4-6)-041217	TDSB 02-(6-8)-041117	TDSB 02-(8-10)-041117	TDSB 03-(8-10)-041117	TDSB 04-(6-8)-041117	TDSB 05-(8-10)-042417	DSB 05-(8-10) DUP-04241	TDSB 06-(4-6)-041217
			Client Sample ID : Date Collected :								
VOLATILE ORGANIC COMPOUNDS											
Acetone	63,400	100,000	3.6766	**0.22**	1.7 U	0.150 U	0.150 U	**0.057 J+**	**0.027**	0.140 U	**0.18 J+**
Benzene	1.6	7.07	0.0051	0.044 U	***0.390 J***	0.045 U	0.046 U	**0.0044 J+**	**0.0042 J**	***0.027 J***	0.045 U
Bromodichloromethane	0.418	1.83	0.0003	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Bromoform	25.4	113	0.0023	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Bromomethane	9.6	43	0.0051	0.110 U	1.2 U	0.110 U	0.110 U	0.012 U	0.0096 U	0.110 U	0.110 UJ
2-Butanone	28,400	28,400	1.6661	**0.210 J**	3.3 U	0.300 U	0.310 U	0.012 U	0.0096 U	**0.094 J**	0.300 U
Carbon disulfide	738	738	0.5919	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	**0.0013 J**	0.043 U	0.045 U
Carbon tetrachloride	0.916	4.03	0.0039	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Chlorobenzene	370	761	NE	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	**0.062**
Chloroethane	NE	NE	0.2266	0.150 U	1.7 U	0.150 U	0.150 U	0.0062 U	0.0048 U	0.140 U	0.150 U
Chloroform	0.454	1,98	0.0033	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Dibromochloromethane	8.28	38.9	0.032	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
1,1-Dichloroethane	5.06	22.2	0.4834	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
1,2-Dichloroethane	0.652	2.87	0.0028	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
1,1-Dichloroethene	320	1,190	0.005	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
cis-1,2-Dichloroethene	156	2,340	0.0412	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
trans-1,2-Dichloroethene	1,560	1,850	0.0626	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
1,2-Dichloropropane	0.406	1.78	0.0033	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
cis-1,3-Dichloropropene	1,210	1,210	NE	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
trans-1,3-Dichloropropene	1,510	1,510	NE	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Ethylbenzene	8.02	35.4	1.57	0.044 U	***2.9***	0.045 U	0.046 U	**0.0015 J+**	**0.0013 J**	**0.022 J**	0.045 U
2-Hexanone	237	1,760	NE	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
4-Methyl-2-pentanone	3,360	3,360	0.2252	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Methylene chloride	61.8	1,150	0.0026	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Methyl tert-butyl ether	63.8	282	0.027	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Styrene	867	867	0.22	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
1,1,2,2-Tetrachloroethane	0.81	3.6	0.0002	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Tetrachloroethene	33	145	0.0045	0.044 U	0.5 U	0.045 U	***0.079***	0.0062 U	0.0048 U	0.043 U	0.045 U
Toluene	818	818	1.1072	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	**0.0047 J**	**0.079**	0.045 U
1,1,1-Trichloroethane	640	640	0.1402	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
1,1,2-Trichloroethane	1.59	7.01	0.0032	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Trichloroethene	1.3	8.41	0.0036	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Vinyl chloride	0.067	2.08	0.0001	0.044 U	0.5 U	0.045 U	0.046 U	0.0062 U	0.0048 U	0.043 U	0.045 U
Xylenes, Total*	260	260	3.96	0.13 U	***7.9***	**0.27**	0.140 U	**0.0037 J+**	**0.0034 J**	**0.15**	0.140 U

TABLE B-1
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL DATA - VOCS
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 07-(6-8)-041217	TDSB 08-(4-6)-041217	TDSB 09-(6-8)-041117	TDSB 10-(6-8)-041117	TDSB 11-(6-8)-041017	TDSB 12-(6-8)-041017	TDSB 13-(4-6)-041017	TDSB 14-(4-6)-041017
			Client Sample ID : Date Collected :								
VOLATILE ORGANIC COMPOUNDS											
Acetone	63,400	100,000	3.6766	0.140 U	0.160 U	1.5 U	0.170 U	0.130 U	0.130 U	0.140 U	**0.054**
Benzene	1.6	7.07	0.0051	0.043 U	0.047 U	0.45 U	***1.5 J+***	***2***	***0.26***	***0.074***	**0.0046 J**
Bromodichloromethane	0.418	1.83	0.0003	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Bromoform	25.4	113	0.0023	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Bromomethane	9.6	43	0.0051	0.110 U	0.120 U	1.1 U	0.130 U	0.099 U	0.099 U	0.100 U	0.011 U
2-Butanone	28,400	28,400	1.6661	0.290 U	0.310 U	3 U	0.340 U	**0.200 J**	**0.170 J**	**0.140 J**	0.011 U
Carbon disulfide	738	738	0.5919	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	**0.0018 J**
Carbon tetrachloride	0.916	4.03	0.0039	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Chlorobenzene	370	761	NE	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Chloroethane	NE	NE	0.2266	0.140 U	0.160 U	1.5 U	0.170 U	0.130 U	0.130 U	0.140 U	0.011 U
Chloroform	0.454	1,98	0.0033	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Dibromochloromethane	8.28	38.9	0.032	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
1,1-Dichloroethane	5.06	22.2	0.4834	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
1,2-Dichloroethane	0.652	2.87	0.0028	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
1,1-Dichloroethene	320	1,190	0.005	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
cis-1,2-Dichloroethene	156	2,340	0.0412	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
trans-1,2-Dichloroethene	1,560	1,850	0.0626	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
1,2-Dichloropropane	0.406	1.78	0.0033	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
cis-1,3-Dichloropropene	1,210	1,210	NE	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
trans-1,3-Dichloropropene	1,510	1,510	NE	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Ethylbenzene	8.02	35.4	1.57	0.043 U	0.047 U	0.45 U	***14***	***9.4***	***3.8***	***1.6***	0.0053 U
2-Hexanone	237	1,760	NE	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
4-Methyl-2-pentanone	3,360	3,360	0.2252	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Methylene chloride	61.8	1,150	0.0026	0.043 U	0.047 U	0.45 U	0.051 U	***0.043***	***0.044***	***0.037 J***	0.0053 U
Methyl tert-butyl ether	63.8	282	0.027	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Styrene	867	867	0.22	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
1,1,2,2-Tetrachloroethane	0.81	3.6	0.0002	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Tetrachloroethene	33	145	0.0045	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Toluene	818	818	1.1072	0.043 U	0.047 U	0.45 U	**0.68 J+**	***1.4***	0.040 U	**0.041**	0.0053 U
1,1,1-Trichloroethane	640	640	0.1402	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
1,1,2-Trichloroethane	1.59	7.01	0.0032	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Trichloroethene	1.3	8.41	0.0036	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Vinyl chloride	0.067	2.08	0.0001	0.043 U	0.047 U	0.45 U	0.051 U	0.040 U	0.040 U	0.041 U	0.0053 U
Xylenes, Total*	260	260	3.96	0.130 U	0.140 U	1.4 U	***36***	***24***	**1.9**	**2.6**	0.0053 U

TABLE B-1
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL DATA - VOCS
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 15-(4-6)-041017	TDSB 16-(2-4)-041017	TDSB 17-(2-4)-042417	TDSB 18-(4-5)-042417	TDSB 19-(2-4)-042417	TDSB 20-(2-4)-042417	TDSB 21-(2-4)-041017	TDSB 22-(4-6)-041117
VOLATILE ORGANIC COMPOUNDS											
Acetone	63,400	100,000	3.6766	**0.018**	1.5 U	0.150 U	0.16 U	0.130 U	0.120 U	**0.022 J-**	**0.36**
Benzene	1.6	7.07	0.0051	**0.003 J**	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	***0.16***
Bromodichloromethane	0.418	1.83	0.0003	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Bromoform	25.4	113	0.0023	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Bromomethane	9.6	43	0.0051	0.0044 U	1.1 U	110 U	0.120 U	0.095 U	94 U	0.0082 U	0.130 U
2-Butanone	28,400	28,400	1.6661	0.0044 U	3 U	**0.12 J**	**0.11 J**	**0.1 J**	**0.13 J**	0.0082 U	0.340 U
Carbon disulfide	738	738	0.5919	**0.0039 J**	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Carbon tetrachloride	0.916	4.03	0.0039	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Chlorobenzene	370	761	NE	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Chloroethane	NE	NE	0.2266	0.0044 U	1.5 U	150 U	0.160 U	0.130 U	0.120 U	0.0082 U	0.170 U
Chloroform	0.454	1,98	0.0033	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Dibromochloromethane	8.28	38.9	0.032	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
1,1-Dichloroethane	5.06	22.2	0.4834	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
1,2-Dichloroethane	0.652	2.87	0.0028	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
1,1-Dichloroethene	320	1,190	0.005	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
cis-1,2-Dichloroethene	156	2,340	0.0412	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
trans-1,2-Dichloroethene	1,560	1,850	0.0626	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
1,2-Dichloropropane	0.406	1.78	0.0033	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
cis-1,3-Dichloropropene	1,210	1,210	NE	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
trans-1,3-Dichloropropene	1,510	1,510	NE	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Ethylbenzene	8.02	35.4	1.57	**0.0013 J**	0.45 U	0.044 U	**0.016 J**	**0.013 J**	0.037 U	0.0041 U	**0.18**
2-Hexanone	237	1,760	NE	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
4-Methyl-2-pentanone	3,360	3,360	0.2252	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Methylene chloride	61.8	1,150	0.0026	0.0044 U	***0.044 J***	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Methyl tert-butyl ether	63.8	282	0.027	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Styrene	867	867	0.22	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
1,1,2,2-Tetrachloroethane	0.81	3.6	0.0002	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Tetrachloroethene	33	145	0.0045	**0.0029 J**	0.45 U	0.044 U	0.047 U	***0.039***	0.037 U	0.0041 U	0.051 U
Toluene	818	818	1.1072	**0.0049**	0.45 U	**0.028 J**	**0.15**	**0.045**	**0.017 J**	0.0041 U	0.051 U
1,1,1-Trichloroethane	640	640	0.1402	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
1,1,2-Trichloroethane	1.59	7.01	0.0032	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Trichloroethene	1.3	8.41	0.0036	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	**0.0017 J**	0.051 U
Vinyl chloride	0.067	2.08	0.0001	0.0044 U	0.45 U	0.044 U	0.047 U	0.038 U	0.037 U	0.0041 U	0.051 U
Xylenes, Total*	260	260	3.96	**0.0028 J**	0.140 U	**0.063 J**	**0.15**	**0.086 J**	0.110 U	0.0041 U	**0.6**

TABLE B-1
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL DATA - VOCS
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 22-(8-10)-041117	TDSB 23-(0-2)-041117	TDSB 24-(4-6)-041117	TDSB 24-(4-6) DUP-041117	TDSB 25-(2-4)-041017	TDSB 25-(4-6)-041017	TDSB 26-(4-6)-041017	TDSB 27-(2-4)-041017
			Client Sample ID :	TDSB 22-(8-10)-041117	TDSB 23-(0-2)-041117	TDSB 24-(4-6)-041117	TDSB 24-(4-6) DUP-041117	TDSB 25-(2-4)-041017	TDSB 25-(4-6)-041017	TDSB 26-(4-6)-041017	TDSB 27-(2-4)-041017
			Date Collected :								
VOLATILE ORGANIC COMPOUNDS											
Acetone	63,400	100,000	3.6766	0.150 U	0.140 U	1.4 U	1.4 U	0.140 U	0.130 U	0.140 U	0.150 U
Benzene	1.6	7.07	0.0051	***0.027 J***	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Bromodichloromethane	0.418	1.83	0.0003	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Bromoform	25.4	113	0.0023	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Bromomethane	9.6	43	0.0051	0.110 U	0.110 U	1 U	1.1 U	0.100 U	0.099 U	0.100 U	0.110 U
2-Butanone	28,400	28,400	1.6661	0.290 U	0.290 U	2.8 U	2.9 U	0.280 U	0.270 U	0.270 U	0.300 U
Carbon disulfide	738	738	0.5919	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Carbon tetrachloride	0.916	4.03	0.0039	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Chlorobenzene	370	761	NE	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Chloroethane	NE	NE	0.2266	0.150 U	0.140 U	1.4 U	1.4 U	0.140 U	0.130 U	0.140 U	0.150 U
Chloroform	0.454	1,98	0.0033	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Dibromochloromethane	8.28	38.9	0.032	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
1,1-Dichloroethane	5.06	22.2	0.4834	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
1,2-Dichloroethane	0.652	2.87	0.0028	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
1,1-Dichloroethene	320	1,190	0.005	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
cis-1,2-Dichloroethene	156	2,340	0.0412	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
trans-1,2-Dichloroethene	1,560	1,850	0.0626	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
1,2-Dichloropropane	0.406	1.78	0.0033	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
cis-1,3-Dichloropropene	1,210	1,210	NE	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
trans-1,3-Dichloropropene	1,510	1,510	NE	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Ethylbenzene	8.02	35.4	1.57	0.044 U	**0.13**	0.41 U	0.43 U	**0.064**	0.040 U	0.041 U	0.045 U
2-Hexanone	237	1,760	NE	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
4-Methyl-2-pentanone	3,360	3,360	0.2252	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Methylene chloride	61.8	1,150	0.0026	0.044 U	0.043 U	0.41 U	0.43 U	***0.064***	***0.065***	***0.057***	0.045 U
Methyl tert-butyl ether	63.8	282	0.027	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Styrene	867	867	0.22	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
1,1,2,2-Tetrachloroethane	0.81	3.6	0.0002	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Tetrachloroethene	33	145	0.0045	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Toluene	818	818	1.1072	0.044 U	0.043 U	0.41 U	0.43 U	**0.052**	0.040 U	0.041 U	0.045 U
1,1,1-Trichloroethane	640	640	0.1402	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
1,1,2-Trichloroethane	1.59	7.01	0.0032	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Trichloroethene	1.3	8.41	0.0036	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Vinyl chloride	0.067	2.08	0.0001	0.044 U	0.043 U	0.41 U	0.43 U	0.041 U	0.040 U	0.041 U	0.045 U
Xylenes, Total*	260	260	3.96	**0.24**	**0.25**	1.2 U	1.3 U	**0.26**	0.120 U	**0.060 J**	0.140 U

TABLE B-1
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL DATA - VOCS
TELEDYNE, WEST ALLIS, WISCONSIN

			Client Sample ID :	TDSB 27-(4-6)-041017	TDSB 28-(2-4)-041017	TDSB 28-(2-4) DUP-041017	TDSB 28-(4-6)-041017	TDSB 29-(4-6)-041017	TDSB 30-(0-2)-041017	TDSB 30-(4-6)-041017	TDSB 31-(2-4)-041017
			Date Collected :								
Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL								
VOLATILE ORGANIC COMPOUNDS											
Acetone	63,400	100,000	3.6766	0.150 U	0.140 U	0.130 U	**0.18 J+**	**0.27**	0.140 U	**0.23**	0.140 U
Benzene	1.6	7.07	0.0051	0.044 U	0.041 U	0.039 U	***0.025 J+***	***0.2***	***0.047***	***0.045***	***0.036 J***
Bromodichloromethane	0.418	1.83	0.0003	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Bromoform	25.4	113	0.0023	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Bromomethane	9.6	43	0.0051	0.110 U	0.100 U	97 U	0.110 U	0.110 U	0.110 U	0.100 U	0.100 U
2-Butanone	28,400	28,400	1.6661	**0.15 J+**	**0.13 J**	**0.14 J**	**0.16 J+**	0.290 U	0.280 U	**0.13 J**	0.270 U
Carbon disulfide	738	738	0.5919	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Carbon tetrachloride	0.916	4.03	0.0039	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Chlorobenzene	370	761	NE	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Chloroethane	NE	NE	0.2266	0.150 U	0.140 U	130 U	0.140 U	0.140 U	0.140 U	0.140 U	0.140 U
Chloroform	0.454	1,98	0.0033	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Dibromochloromethane	8.28	38.9	0.032	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
1,1-Dichloroethane	5.06	22.2	0.4834	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
1,2-Dichloroethane	0.652	2.87	0.0028	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
1,1-Dichloroethene	320	1,190	0.005	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
cis-1,2-Dichloroethene	156	2,340	0.0412	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
trans-1,2-Dichloroethene	1,560	1,850	0.0626	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
1,2-Dichloropropane	0.406	1.78	0.0033	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
cis-1,3-Dichloropropene	1,210	1,210	NE	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
trans-1,3-Dichloropropene	1,510	1,510	NE	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Ethylbenzene	8.02	35.4	1.57	0.044 U	0.041 U	0.039 U	**0.18 J+**	**1.3**	**0.2**	**0.97**	**0.047**
2-Hexanone	237	1,760	NE	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
4-Methyl-2-pentanone	3,360	3,360	0.2252	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Methylene chloride	61.8	1,150	0.0026	***0.037 J+***	***0.041***	0.039 U	***0.047 J+***	0.043 U	**0.025 J**	***0.048***	***0.051***
Methyl tert-butyl ether	63.8	282	0.027	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Styrene	867	867	0.22	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
1,1,2,2-Tetrachloroethane	0.81	3.6	0.0002	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Tetrachloroethene	33	145	0.0045	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Toluene	818	818	1.1072	0.044 U	0.041 U	0.039 U	**0.051 J+**	0.043 U	**0.14**	**0.05**	**0.089**
1,1,1-Trichloroethane	640	640	0.1402	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
1,1,2-Trichloroethane	1.59	7.01	0.0032	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Trichloroethene	1.3	8.41	0.0036	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	***0.17***
Vinyl chloride	0.067	2.08	0.0001	0.044 U	0.041 U	0.039 U	0.042 U	0.043 U	0.042 U	0.041 U	0.041 U
Xylenes, Total*	260	260	3.96	0.130 U	0.120 U	0.120 U	**0.24 J+**	***19***	**0.62**	**2.3**	**0.24**

TABLE B-1
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL DATA - VOCS
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 32-(2-4)-042417	TD-SB38 (8-10)-071917	TD-SB39 (2-4)-071917	TD-SB40 (2-4)-071917
			Client Sample ID :	TDSB 32-(2-4)-042417	TD-SB38 (8-10)-071917	TD-SB39 (2-4)-071917	TD-SB40 (2-4)-071917
			Date Collected :				
VOLATILE ORGANIC COMPOUNDS							
Acetone	63,400	100,000	3.6766	0.120 U	1.1 U	1.1 U	1.2 U
Benzene	1.6	7.07	0.0051	0.037 U	0.02 U	0.02 U	0.021 U
Bromodichloromethane	0.418	1.83	0.0003	0.037 U	0.064 U	0.063 U	0.064 U
Bromoform	25.4	113	0.0023	0.037 U	0.072 U	0.071 U	0.073 U
Bromomethane	9.6	43	0.0051	0.094 U	0.17 U	0.17 U	0.17 U
2-Butanone	28,400	28,400	1.6661	0.250 U	0.36 U	0.36 U	0.36 U
Carbon disulfide	738	738	0.5919	0.037 U	0.31 U	0.31 U	0.32 U
Carbon tetrachloride	0.916	4.03	0.0039	0.037 U	0.089 U	0.088 U	0.09 U
Chlorobenzene	370	761	NE	0.037 U	0.094 U	0.093 U	0.095 U
Chloroethane	NE	NE	0.2266	0.120 U	0.25 U	0.25 U	0.26 U
Chloroform	0.454	1,98	0.0033	0.037 U	0.083 U	0.082 U	0.084 U
Dibromochloromethane	8.28	38.9	0.032	0.037 U	0.073 U	0.072 U	0.074 U
1,1-Dichloroethane	5.06	22.2	0.4834	0.037 U	0.1 U	0.1 U	0.1 U
1,2-Dichloroethane	0.652	2.87	0.0028	0.037 U	0.094 U	0.093 U	0.095 U
1,1-Dichloroethene	320	1,190	0.005	0.037 U	0.1 U	0.1 U	0.1 U
cis-1,2-Dichloroethene	156	2,340	0.0412	0.037 U	0.11 U	**0.122**	0.11 U
trans-1,2-Dichloroethene	1,560	1,850	0.0626	0.037 U	0.04 U	0.039 U	0.04 U
1,2-Dichloropropane	0.406	1.78	0.0033	0.037 U	0.048 U	0.047 U	0.049 U
cis-1,3-Dichloropropene	1,210	1,210	NE	0.037 U	0.075 U	0.074 U	0.075 U
trans-1,3-Dichloropropene	1,510	1,510	NE	0.037 U	0.09 U	0.089 U	0.091 U
Ethylbenzene	8.02	35.4	1.57	**0.015 J**	0.084 U	0.083 U	0.085 U
2-Hexanone	237	1,760	NE	0.037 U	0.44 U	0.44 U	0.45 U
4-Methyl-2-pentanone	3,360	3,360	0.2252	0.037 U	0.26 U	0.26 U	0.27 U
Methylene chloride	61.8	1,150	0.0026	0.037 U	0.12 U	0.12 U	0.12 U
Methyl tert-butyl ether	63.8	282	0.027	0.037 U	0.097 U	0.096 U	0.099 U
Styrene	867	867	0.22	0.037 U	0.12 U	0.11 U	0.12 U
1,1,2,2-Tetrachloroethane	0.81	3.6	0.0002	0.037 U	0.087 U	0.085 U	0.088 U
Tetrachloroethene	33	145	0.0045	0.037 U	0.052 U	***0.0496 J***	0.052 U
Toluene	818	818	1.1072	**0.021 J**	0.053 U	0.052 U	0.054 U
1,1,1-Trichloroethane	640	640	0.1402	0.037 U	0.097 U	0.096 U	0.099 U
1,1,2-Trichloroethane	1.59	7.01	0.0032	0.037 U	0.063 U	0.062 U	0.063 U
Trichloroethene	1.3	8.41	0.0036	0.037 U	0.059 U	***6.83 J+***	0.06 U
Vinyl chloride	0.067	2.08	0.0001	0.037 U	0.038 U	0.038 U	0.039 U
Xylenes, Total*	260	260	3.96	**0.075 J**	0.061 U	0.06 U	0.062 U

Notes
All concentrations in milligrams per kilogram (mg/kg)

U - Not Detected
J - Concentration is estimated.
J+ :The analyte was positively identified; the associated value is the approximate concentration but may be biased high
J- :The analyte was positively identified; the associated value is the approximate concentration but may be biased low
* - m&p-xylenes and o-xylenes added together for total xylenes
NE - Not established
BOLD - Concentration is above the analytical detection limit.
Italicized values exceed WDNR GW Pathway
- Concentration exceeds WDNR Non-Industrial Direct Contact RCL and Background Threshold Value

TABLE B-2
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - PAHs
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 01-(4-6)-041217	TDSB 02-(6-8)-041117	TDSB 02-(8-10)-041117	TDSB 03-(8-10)-041117	TDSB 04-(6-8)-041117	TDSB 05-(8-10)-042417	TDSB 05-(8-10) DUP-042417	TDSB 06-(4-6)-041217
Client Sample ID :				TDSB 01-(4-6)-041217	TDSB 02-(6-8)-041117	TDSB 02-(8-10)-041117	TDSB 03-(8-10)-041117	TDSB 04-(6-8)-041117	TDSB 05-(8-10)-042417	TDSB 05-(8-10) DUP-042417	TDSB 06-(4-6)-041217
Date Collected :				4/12/2017	4/11/2017	4/11/2017	4/11/2017	4/11/2017	4/24/2017	4/24/2017	4/12/2017
POLYNUCLEAR AROMATIC HYDROCARBONS											
1-Methylnaphthalene	17.6	73	NE	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	4,780	60,300	NE	0.051 U	0.088 U	0.050 U	0.0083 U	0.0062 U	0.048 U	0.049 U	0.050 U
2-Methylnaphthalene	239	3,010	NE	0.051 U	**8.6**	**0.26**	**0.17**	**0.14**	0.048 U	**0.071**	**0.084**
Acenaphthene	3,590	45,200	NE	0.051 U	**0.31**	0.050 U	0.0083 U	0.049 U	0.048 U	0.049 U	**0.39**
Acenaphthylene	NE	NE	NE	0.051 U	**0.21**	0.050 U	0.0083 U	0.049 U	0.048 U	**0.057**	**0.079**
Anthracene	17,900	100,000	196.9492	0.051 U	0.055 U	0.050 U	0.0083 U	0.049 U	0.048 U	**0.28**	**0.49**
Benz(a)anthracene	1.14	20.8	0.47	0.051 U	**0.2**	0.050 U	0.0083 U	0.049 U	**0.21**	***0.48***	***0.71***
Benzo(a)pyrene	0.115	1.76	NE	0.051 U	0.055 U	0.050 U	0.0083 U	0.049 U	**0.16**	**0.4**	**0.39**
Benzo(b)fluoranthene	1.15	21.1	0.4793	0.051 U	0.055 U	0.050 U	0.0083 U	0.049 U	**0.33**	***0.68***	***0.48***
Benzo(g,h,i)perylene	NE	NE	NE	0.051 U	0.055 U	0.050 U	0.0083 U	0.049 U	**0.064**	**0.12**	0.050 U
Benzo(k)fluoranthene	11.5	211	NE	0.051 U	0.055 U	0.050 U	0.0083 U	0.049 U	**0.14**	**0.31**	**0.18**
Chrysene	115	2,110	0.1446	0.051 U	**0.07**	0.050 U	0.0083 U	0.049 U	***0.23***	***0.48***	***1***
Dibenz(a,h)anthracene	0.115	2.11	NE	0.051 U	0.055 U	0.050 U	0.0083 U	0.049 U	0.048 U	0.049 U	0.050 U
Fluoranthene	2,390	30,100	88.8778	0.051 U	**0.11**	0.050 U	0.0083 U	**0.099**	**0.36**	**1**	**2.1**
Fluorene	2,390	30,100	14.8299	0.051 U	**0.65**	0.050 U	**0.03**	0.049 U	0.048 U	0.049 U	**0.53**
Indeno(1,2,3-cd)pyrene	1.15	21.1	NE	0.051 U	0.055 U	0.050 U	0.0083 U	0.049 U	0.048 U	**0.27**	0.050 U
Naphthalene	5.52	24.1	0.6582	0.051 U	***1.6***	**0.077**	**0.025**	**0.12**	0.048 U	**0.085**	**0.19**
Phenanthrene	NE	NE	NE	0.051 U	**1.1**	0.050 U	**0.084**	**0.071**	**0.14**	**0.37**	**0.41**
Pyrene	1,790	22,600	54.5455	0.051 U	0.055 U	0.050 U	0.0083 U	0.049 U	**0.16**	**0.48**	**2.7**

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 07-(6-8)-041217	TDSB 08-(4-6)-041217	TDSB 09-(6-8)-041117	TDSB 10-(6-8)-041117	TDSB 11-(6-8)-041017	TDSB 12-(6-8)-041017	TDSB 13-(4-6)-041017	TDSB 14-(4-6)-041017
Client Sample ID :				TDSB 07-(6-8)-041217	TDSB 08-(4-6)-041217	TDSB 09-(6-8)-041117	TDSB 10-(6-8)-041117	TDSB 11-(6-8)-041017	TDSB 12-(6-8)-041017	TDSB 13-(4-6)-041017	TDSB 14-(4-6)-041017
Date Collected :				4/12/2017	4/12/2017	4/11/2017	4/11/2017	4/10/2017	4/10/2017	4/10/2017	4/10/2017
POLYNUCLEAR AROMATIC HYDROCARBONS											
1-Methylnaphthalene	17.6	73	NE	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	4,780	60,300	NE	0.050 U	0.053 U	0.051 U	0.056 U	0.047 U	0.047 U	0.049 U	0.050 U
2-Methylnaphthalene	239	3,010	NE	0.050 U	0.053 U	**0.14**	**1.9**	**0.79**	**1.5**	**0.53**	0.050 U
Acenaphthene	3,590	45,200	NE	0.050 U	0.053 U	**0.2**	0.056 U	0.047 U	0.047 U	**0.058**	0.050 U
Acenaphthylene	NE	NE	NE	0.050 U	0.053 U	**0.15**	0.056 U	0.047 U	0.047 U	**0.081**	0.050 U
Anthracene	17,900	100,000	196.9492	0.050 U	0.053 U	0.051 U	0.056 U	0.047 U	0.047 U	**0.24**	0.050 U
Benz(a)anthracene	1.14	20.8	0.47	0.050 U	0.053 U	0.051 U	0.056 U	**0.15**	0.047 U	***0.8***	0.050 U
Benzo(a)pyrene	0.115	1.76	NE	0.050 U	0.053 U	0.051 U	0.056 U	0.047 U	0.047 U	**0.32**	0.050 U
Benzo(b)fluoranthene	1.15	21.1	0.4793	0.050 U	0.053 U	0.051 U	0.056 U	**0.17**	0.047 U	***0.95***	0.050 U
Benzo(g,h,i)perylene	NE	NE	NE	0.050 U	0.053 U	0.051 U	0.056 U	0.047 U	0.047 U	**0.26**	0.050 U
Benzo(k)fluoranthene	11.5	211	NE	0.050 U	0.053 U	0.051 U	0.056 U	0.047 U	0.047 U	**0.17**	0.050 U
Chrysene	115	2,110	0.1446	0.050 U	0.053 U	0.051 U	0.056 U	**0.084**	0.047 U	***0.62***	0.050 U
Dibenz(a,h)anthracene	0.115	2.11	NE	0.050 U	0.053 U	0.051 U	0.056 U	0.047 U	0.047 U	**0.19**	0.050 U
Fluoranthene	2,390	30,100	88.8778	**0.28**	0.053 U	0.051 U	0.056 U	**0.23**	**0.085**	**1.5**	0.050 U
Fluorene	2,390	30,100	14.8299	0.050 U	0.053 U	**0.38**	0.056 U	0.047 U	0.047 U	**0.055**	0.050 U
Indeno(1,2,3-cd)pyrene	1.15	21.1	NE	0.050 U	0.053 U	0.051 U	0.056 U	0.047 U	0.047 U	**0.32**	0.050 U
Naphthalene	5.52	24.1	0.6582	0.050 U	0.053 U	**0.19**	***3.2***	***0.75***	***1.7***	**0.55**	0.050 U
Phenanthrene	NE	NE	NE	0.050 U	0.053 U	**0.19**	0.056 U	0.047 U	**0.077**	**0.9**	0.050 U
Pyrene	1,790	22,600	54.5455	**0.17**	0.053 U	0.051 U	0.056 U	**0.084**	0.047 U	**1.1**	0.050 U

TABLE B-2
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - PAHs
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 15-(4-6)-041017	TDSB 16-(2-4)-041017	TDSB 17-(2-4)-042417	TDSB 18-(4-5)-042417	TDSB 19-(2-4)-042417	TDSB 20-(2-4)-042417	TDSB 21-(2-4)-041017	TDSB 22-(4-6)-041117
			Date Collected :	4/10/2017	4/10/2017	4/24/2017	4/24/2017	4/24/2017	4/24/2017	4/10/2017	4/11/2017
POLYNUCLEAR AROMATIC HYDROCARBONS											
1-Methylnaphthalene	17.6	73	NE	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	4,780	60,300	NE	0.051 U	0.051 U	0.045 U	0.25 U	0.046 U	0.046 U	0.049 U	0.055 U
2-Methylnaphthalene	239	3,010	NE	0.051 U	0.051 U	**0.11**	**0.68**	**0.095**	0.046 U	0.049 U	**5.2**
Acenaphthene	3,590	45,200	NE	0.051 U	0.051 U	**0.14**	**1.2**	**0.057**	**0.059**	0.049 U	**0.12**
Acenaphthylene	NE	NE	NE	0.051 U	0.051 U	**0.48**	**9.5**	**0.26**	**0.55**	0.049 U	0.055 U
Anthracene	17,900	100,000	196.9492	0.051 U	0.051 U	**2.3**	**15**	**0.75**	**0.42**	0.049 U	0.055 U
Benz(a)anthracene	1.14	20.8	0.47	0.051 U	0.051 U	***3.4***	***52***	***1.5***	***0.66***	0.049 U	***1.3***
Benzo(a)pyrene	0.115	1.76	NE	0.051 U	0.051 U	**2.7**	**36**	**1.5**	**0.38**	0.049 U	0.055 U
Benzo(b)fluoranthene	1.15	21.1	0.4793	0.051 U	0.051 U	***3.5***	***44***	***2.2***	***0.69***	0.049 U	0.055 U
Benzo(g,h,i)perylene	NE	NE	NE	0.051 U	0.051 U	**0.79**	**9.5**	**0.39**	**0.11**	0.049 U	0.055 U
Benzo(k)fluoranthene	11.5	211	NE	0.051 U	0.051 U	**1.4**	**17**	**1**	**0.21**	0.049 U	0.055 U
Chrysene	115	2,110	0.1446	0.051 U	0.051 U	***2.4***	***28***	***1***	***0.46***	0.049 U	***2.1***
Dibenz(a,h)anthracene	0.115	2.11	NE	0.051 U	0.051 U	**0.045 U**	**3.9**	0.046 U	0.046 U	0.049 U	0.055 U
Fluoranthene	2,390	30,100	88.8778	0.051 U	0.051 U	**6.7**	***93***	**3.1**	**1.6**	0.049 U	**0.78**
Fluorene	2,390	30,100	14.8299	0.051 U	0.051 U	**0.23**	**1.9**	**0.059**	0.046 U	0.049 U	**0.24**
Indeno(1,2,3-cd)pyrene	1.15	21.1	NE	0.051 U	0.051 U	**1.4**	**11**	**0.97**	**0.25**	0.049 U	0.055 U
Naphthalene	5.52	24.1	0.6582	0.051 U	0.051 U	**0.15**	***1.5***	**0.099**	0.046 U	0.049 U	***6.5***
Phenanthrene	NE	NE	NE	0.051 U	0.051 U	**3.3**	**36**	**0.93**	**0.49**	0.049 U	**0.57**
Pyrene	1,790	22,600	54.5455	0.051 U	0.051 U	**5.1**	**71**	**1.4**	**0.75**	0.049 U	**2.4**

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 22-(8-10)-041117	TDSB 23-(0-2)-041117	TDSB 24-(4-6)-041117	TDSB 24-(4-6) DUP-041117	TDSB 25-(2-4)-041017	TDSB 25-(4-6)-041017	TDSB 26-(4-6)-041017	TDSB 27-(2-4)-041017
			Date Collected :	4/11/2017	4/11/2017	4/11/2017	4/11/2017	4/10/2017	4/10/2017	4/10/2017	4/10/2017
POLYNUCLEAR AROMATIC HYDROCARBONS											
1-Methylnaphthalene	17.6	73	NE	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	4,780	60,300	NE	0.051 U	0.0081 U	0.049 U	0.050 U	0.048 U	0.046 U	0.047 U	0.051 U
2-Methylnaphthalene	239	3,010	NE	**6**	**0.14**	**0.43**	**0.22**	**0.13**	0.046 U	**0.11**	**0.13**
Acenaphthene	3,590	45,200	NE	**0.11**	0.0081 U	**0.46 J**	**0.2 J**	**0.084**	0.046 U	**0.051**	0.051 U
Acenaphthylene	NE	NE	NE	**0.11**	0.0081 U	**0.26**	**0.15**	**0.087**	0.046 U	**0.11**	0.051 U
Anthracene	17,900	100,000	196.9492	0.051 U	0.0081 U	0.049 U	0.050 U	**0.29**	0.046 U	**0.2**	0.051 U
Benz(a)anthracene	1.14	20.8	0.47	0.051 U	**0.044**	**0.38**	**0.27**	***1.1***	0.046 U	***0.65***	0.051 U
Benzo(a)pyrene	0.115	1.76	NE	0.051 U	**0.036**	**0.11 J**	0.050 UJ	**0.49**	0.046 U	**0.34**	0.051 U
Benzo(b)fluoranthene	1.15	21.1	0.4793	0.051 U	**0.051**	***0.64***	**0.44**	***1.3***	0.046 U	***1.1***	0.051 U
Benzo(g,h,i)perylene	NE	NE	NE	0.051 U	**0.03**	0.049 U	0.050 UU	**0.11**	0.046 U	0.047 U	0.051 U
Benzo(k)fluoranthene	11.5	211	NE	0.051 U	**0.019**	**0.087**	**0.064**	**0.35**	0.046 U	**0.38**	0.051 U
Chrysene	115	2,110	0.1446	0.051 U	**0.092**	***0.45***	***0.26***	***0.88***	0.046 U	***0.61***	0.051 U
Dibenz(a,h)anthracene	0.115	2.11	NE	0.051 U	**0.022**	0.049 U	0.050 U	**0.18**	0.046 U	0.047 U	0.051 U
Fluoranthene	2,390	30,100	88.8778	0.051 U	**0.048**	**0.66**	**0.39**	**1.9**	**0.048**	**1.4**	**0.12**
Fluorene	2,390	30,100	14.8299	**0.14**	0.0081 U	**0.8 J**	**0.38 J**	**0.091**	0.046 U	**0.053**	0.051 U
Indeno(1,2,3-cd)pyrene	1.15	21.1	NE	0.051 U	**0.031**	0.049 U	0.050 U	**0.18**	0.046 U	0.047 U	0.051 U
Naphthalene	5.52	24.1	0.6582	***1***	**0.15**	**0.33**	**0.24**	**0.12**	0.046 U	**0.14**	**0.1**
Phenanthrene	NE	NE	NE	**0.14**	**0.049**	**0.53**	**0.31**	**1.1**	0.046 U	**0.64**	0.051 U
Pyrene	1,790	22,600	54.5455	0.051 U	**0.098**	**0.5**	**0.25**	**2.2**	0.046 U	**0.97**	0.051 U

TABLE B-2
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - PAHs
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 27-(4-6)-041017	TDSB 28-(2-4)-041017	TDSB 28-(2-4) DUP-041017	TDSB 28-(4-6)-041017	TDSB 29-(4-6)-041017	TDSB 30-(0-2)-041017	TDSB 30-(4-6)-041017	TDSB 31-(2-4)-041017
			Date Collected :	4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/10/2017
POLYNUCLEAR AROMATIC HYDROCARBONS											
1-Methylnaphthalene	17.6	73	NE	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	4,780	60,300	NE	0.051 U	0.047 U	0.048 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U
2-Methylnaphthalene	239	3,010	NE	0.23	0.1	0.11	0.25	0.59	0.24	0.11	0.13
Acenaphthene	3,590	45,200	NE	0.051 U	0.053	0.065	0.76	0.050 U	0.049 U	0.12	0.049 U
Acenaphthylene	NE	NE	NE	0.051 U	0.075	0.048 U	0.077	0.050 U	0.049 U	0.049 U	0.079
Anthracene	17,900	100,000	196.9492	0.051 U	0.062	0.1	1.9	0.050 U	0.049 U	0.24	0.049 U
Benz(a)anthracene	1.14	20.8	0.47	0.4	0.4	0.53	3.4	0.050 U	0.049 U	0.64	0.32
Benzo(a)pyrene	0.115	1.76	NE	0.12	0.11	0.19	1.7	0.050 U	0.049 U	0.2	0.14
Benzo(b)fluoranthene	1.15	21.1	0.4793	0.54	0.49	0.67	2.8	0.050 U	0.049 U	0.69	0.59
Benzo(g,h,i)perylene	NE	NE	NE	0.051 U	0.096	0.17	0.71	0.050 U	0.049 U	0.18	0.049 U
Benzo(k)fluoranthene	11.5	211	NE	0.078	0.078	0.14	0.7	0.050 U	0.049 U	0.12	0.14
Chrysene	115	2,110	0.1446	0.29	0.29	0.45	2.4	0.050 U	0.049 U	0.39	0.2
Dibenz(a,h)anthracene	0.115	2.11	NE	0.051 U	0.066 J	0.15 J	0.34	0.050 U	0.049 U	0.12	0.049 U
Fluoranthene	2,390	30,100	88.8778	0.71	0.79	0.98	6.4	0.13	0.15	1.2	0.57
Fluorene	2,390	30,100	14.8299	0.051 U	0.047	0.048 U	1.1	0.050 U	0.049 U	0.14	0.049 U
Indeno(1,2,3-cd)pyrene	1.15	21.1	NE	0.051 U	0.099 J	0.22 J	1.4	0.050 U	0.049 U	0.19	0.049 U
Naphthalene	5.52	24.1	0.6582	0.31	0.09	0.096	0.24	1.4	0.25	0.13	0.11
Phenanthrene	NE	NE	NE	0.5	0.54	0.7	5.7	0.094	0.12	0.88	0.32
Pyrene	1,790	22,600	54.5455	0.5	0.76	0.85	5.7	0.051	0.049 U	1	0.34

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TDSB 32-(2-4)-042417	TD-SB33 (2-4)-071917	TD-SB34 (2-4)-071917	TD-SB35 (6-8)-071917	TD-SB36 (2-4)-071917	TD-SB37 (4-6)-071917	TD-SB38 (8-10)-071917	TD-SB39 (2-4)-071917
			Date Collected :	4/24/2017	7/19/2017	7/19/2017	7/19/2017	7/19/2017	7/19/2017	7/19/2017	7/19/2017
POLYNUCLEAR AROMATIC HYDROCARBONS											
1-Methylnaphthalene	17.6	73	NE	NA	0.1 U	0.11 U	0.12 U	1.36 J	0.367 J	0.59 U	12 U
2-Chloronaphthalene	4,780	60,300	NE	0.046 U	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	239	3,010	NE	0.077	0.12 U	0.13 U	0.15 U	1.4 U	0.353 J	0.71 U	14 U
Acenaphthene	3,590	45,200	NE	0.046 U	0.098 U	0.11 U	0.12 U	1.1 U	0.13 U	3.77 J	11 U
Acenaphthylene	NE	NE	NE	0.046 U	0.11 U	0.12 U	0.13 U	0.512 J	0.14 U	0.62 U	12 U
Anthracene	17,900	100,000	196.9492	0.046 U	0.038 U	0.042 U	0.396 J-	4.09 J	0.049 U	0.22 U	40.5 J
Benz(a)anthracene	1.14	20.8	0.47	0.046 U	0.0197 J	0.0171	0.105	0.923	0.0456	0.0479 J	8.21
Benzo(a)pyrene	0.115	1.76	NE	0.046 U	0.0642	0.0335	0.127 J	1.29	0.0914	0.0689	8.48
Benzo(b)fluoranthene	1.15	21.1	0.4793	0.046 U	0.0532	0.0385	0.128 J	1.29	0.106	0.161 J	8.15
Benzo(g,h,i)perylene	NE	NE	NE	0.046 U	0.0522	0.0404	0.099	0.977	0.0924	0.072 U	4.67
Benzo(k)fluoranthene	11.5	211	NE	0.046 U	0.0416 J	0.0112 J	0.0515	0.6	0.0724 J	0.183 J	3.31
Chrysene	115	2,110	0.1446	0.046 U	0.0596 J	0.0339	0.127	1.19	0.0677	0.453 J	8.7
Dibenz(a,h)anthracene	0.115	2.11	NE	0.046 U	0.0685 J	0.0524 J	0.0907 J	0.913 J	0.0887 J	0.15 U	7.09 J
Fluoranthene	2,390	30,100	88.8778	0.44	0.0317 J	0.0556	0.273 J-	1.88	0.157	0.856 J	16.4
Fluorene	2,390	30,100	14.8299	0.046 U	0.049 U	0.0238 J	0.0616 J	0.528 J	0.064 U	0.29 U	3.75 J
Indeno(1,2,3-cd)pyrene	1.15	21.1	NE	0.046 U	0.0518	0.0195	0.0936	0.988	0.0738	0.078 U	5.53
Naphthalene	5.52	24.1	0.6582	0.046	0.14 U	0.16 U	0.17 U	1.7 U	0.212 J	0.83 U	16 U
Phenanthrene	NE	NE	NE	0.046 U	0.0793 J	0.0915 J	0.138 J	1.06	0.207 J	0.11 U	10.4
Pyrene	1,790	22,600	54.5455	0.27	0.023 J	0.0381	0.238	1.48	0.0112 J	0.15 U	11.5

TABLE B-2
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - PAHs
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TD-SB40 (2-4)-071917 7/19/2017	TD-SB41 (2-6)-071917 7/19/2017	TD-SB42 (4-6)-071917 7/19/2017	TD-SB43 (2-4)-071917 7/19/2017	TD-SB44 (2-4)-071917 7/19/2017	TD-SB45 (4-6)-071917 7/19/2017	TD-SB46 (4-8)-071917 7/19/2017	TD-SB46 (4-8)-071917D 7/19/2017
POLYNUCLEAR AROMATIC HYDROCARBONS											
1-Methylnaphthalene	17.6	73	NE	6 U	**1.44 J**	1.3 U	6.1 U	**0.375 J**	**2.91 J-**	5.9 U	30 U
2-Chloronaphthalene	4,780	60,300	NE	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	239	3,010	NE	7.2 U	**1.55**	**0.694 J**	7.3 U	**0.169**	**7.7 J-**	7.1 U	36 U
Acenaphthene	3,590	45,200	NE	5.8 U	1.0 U	1.2 U	5.9 U	0.11 U	**5.3 UJ**	5.7 U	29 U
Acenaphthylene	NE	NE	NE	6.2 U	1.1 U	1.3 U	6.4 U	**0.0916 J**	**5.8 UJ**	6.2 U	31 U
Anthracene	17,900	100,000	196.9492	2.2 U	**2.32 J**	0.47 U	2.3 U	0.044 U	**2.1 UJ**	**9.71 J**	11 U
Benz(a)anthracene	1.14	20.8	0.47	**0.249 J**	**0.399**	**0.139 J**	***1.0***	**0.028**	**0.259 J-**	***2.88 J***	***9.92 J***
Benzo(a)pyrene	0.115	1.76	NE	**0.218 J**	**0.52**	**0.147**	**3.04**	**0.0367**	**0.495 J-**	**4.1 J**	**10.1 J**
Benzo(b)fluoranthene	1.15	21.1	0.4793	**0.479**	***0.653***	**0.213**	***3.28***	**0.0488**	***0.507 J-***	***3.87 J***	***9.14 J***
Benzo(g,h,i)perylene	NE	NE	NE	**0.285 J**	**0.607**	**0.284**	**3.26**	**0.0347**	**0.698 J-**	**2.82 J**	**6.65 J**
Benzo(k)fluoranthene	11.5	211	NE	**0.473 J**	**0.26**	**0.106 J**	**1.16**	**0.0256 J**	**0.383 J-**	**1.52 J**	**4.27 J**
Chrysene	115	2,110	0.1446	1.1 U	***0.534***	***0.186 J***	***1.57***	**0.0586**	***0.462 J-***	***2.95 J***	***9.59 J***
Dibenz(a,h)anthracene	0.115	2.11	NE	1.5 U	**0.422 J**	**0.266 J**	**3.78 J**	**0.0326 J**	**1.17 J-**	**2.98 J**	**7.59 J**
Fluoranthene	2,390	30,100	88.8778	**2.3**	**1.07**	**0.518 J**	**1.99**	**0.113 J**	**0.569 J-**	**6.82 J**	**17.9 J**
Fluorene	2,390	30,100	14.8299	2.9 U	**0.169 J**	0.61 U	3 U	0.057 U	**2.7 UJ**	**1.01 J**	15 U
Indeno(1,2,3-cd)pyrene	1.15	21.1	NE	0.79 U	**0.557**	**0.163**	**4.69**	**0.0321**	**0.4 J-**	**3.14 J**	**7.35 J**
Naphthalene	5.52	24.1	0.6582	8.4 U	1.5 U	1.8 U	8.6 U	**0.243 J**	***5.38 J-***	8.3 U	42 U
Phenanthrene	NE	NE	NE	**2.25**	**0.767**	**0.343**	**1.43**	**0.121 J**	**0.754 J-**	**2.65 J**	**5.93 J**
Pyrene	1,790	22,600	54.5455	**1.38 J**	**0.485**	**0.979 J**	**1.74**	**0.028 J**	**0.411 J-**	**6.7 J**	**15.5 J**

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL	TD-SB47 (2-4)-071917 7/19/2017
POLYNUCLEAR AROMATIC HYDROCARBONS				
1-Methylnaphthalene	17.6	73	NE	11 U
2-Chloronaphthalene	4,780	60,300	NE	NA
2-Methylnaphthalene	239	3,010	NE	13 U
Acenaphthene	3,590	45,200	NE	11 U
Acenaphthylene	NE	NE	NE	12 U
Anthracene	17,900	100,000	196.9492	**16.2 J**
Benz(a)anthracene	1.14	20.8	0.47	***4.91***
Benzo(a)pyrene	0.115	1.76	NE	**5.96**
Benzo(b)fluoranthene	1.15	21.1	0.4793	***5.29***
Benzo(g,h,i)perylene	NE	NE	NE	**3.74**
Benzo(k)fluoranthene	11.5	211	NE	**2.1**
Chrysene	115	2,110	0.1446	***5.1***
Dibenz(a,h)anthracene	0.115	2.11	NE	**4.06 J**
Fluoranthene	2,390	30,100	88.8778	**10.9**
Fluorene	2,390	30,100	14.8299	**2.15 J**
Indeno(1,2,3-cd)pyrene	1.15	21.1	NE	**4.15**
Naphthalene	5.52	24.1	0.6582	16 U
Phenanthrene	NE	NE	NE	**5.61**
Pyrene	1,790	22,600	54.5455	**9.45**

Notes
All concentrations in milligrams per kilogram (mg/kg)

U - Not Detected
J - Concentration is estimated.
J+ :The analyte was positively identified; the associated value is the approximate concentration but may be biased high
J- :The analyte was positively identified; the associated value is the approximate concentration but may be biased low
* - m&p-xylenes and o-xylenes added together for total xylenes
NE - Not established
BOLD - Concentration is above the analytical detection limit.
Italicized values exceed WDNR GW Pathway
- Concentration exceeds WDNR Industrial Direct Contact RCL and Background Threshold Value
- Concentration exceeds WDNR Non-Industrial Direct Contact RCL and Background Threshold Value

TABLE B-3
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - PCBS AND PESTICIDES
TELEDYNE, WEST ALLIS, WISCONSIN

			Client Sample ID :	TDSB 01-(4-6)-041217	TDSB 02-(6-8)-041117	TDSB 02-(8-10)-041117	TDSB 03-(8-10)-041117	TDSB 04-(6-8)-041117	TDSB 05-(8-10)-042417	TDSB 05-(8-10) DUP-04241
			Date Collected :	4/12/2017	4/11/2017	4/11/2017	4/11/2017	4/11/2017	4/24/2017	4/24/2017
Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL							
PCBS										
Aroclor 1016	4.11	28	0.0094	0.080 U	0.086 U	0.081 U	0.083 UJ	0.080 U	0.078 U	0.080 U
Aroclor 1221	0.213	0.883	0.0094	0.080 U	0.086 U	0.081 U	0.083 UJ	0.080 U	0.078 U	0.080 U
Aroclor 1232	0.19	0.792	0.0094	0.080 U	0.086 U	0.081 U	0.083 UJ	0.080 U	0.078 U	0.080 U
Aroclor 1242	0.235	0.972	0.0094	0.080 U	0.086 U	0.081 U	0.083 UJ	0.080 U	0.078 U	0.080 U
Aroclor 1248	0.236	0.975	0.0094	0.080 U	0.086 U	0.081 U	0.083 UJ	0.080 U	0.078 U	0.080 U
Aroclor 1254	0.239	0.988	0.0094	0.080 U	0.086 U	0.081 U	0.026 UJ	0.080 U	0.078 U	0.080 U
Aroclor 1260	0.243	1	0.0094	0.080 U	0.086 U	0.081 U	0.083 UJ	0.080 U	0.078 U	0.080 U
Aroclor 1262	NE	NE	NE	0.080 U	0.086 U	0.081 U	0.083 UJ	0.080 U	0.078 U	0.080 U
Aroclor 1268	NE	NE	NE	0.080 U	0.086 U	0.081 U	0.083 UJ	0.080 U	0.078 U	0.080 U
PESTICIDES										
4,4´-DDD	2.26	9.57	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
4,4´-DDE	2	9.38	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
4,4´-DDT	1.89	8.53	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Aldrin	0.04	0.187	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
alpha-BHC	0.086	0.365	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
alpha-Chlordane	NE	NE	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
beta-BHC	0.301	1.28	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Chlordane	1.74	7.76	NE	0.030 U	0.032 U	0.030 U	0.031 U	0.030 U	1.5 U	1.5 U
delta-BHC	NE	NE	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Dieldrin	0.034	0.144	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Endosulfan I	469	7,010	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Endosulfan II	NE	NE	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Endosulfan sulfate	NE	NE	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Endrin	19	246	0.1616	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Endrin aldehyde	NE	NE	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Endrin ketone	NE	NE	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
gamma-BHC	0.568	2.54	0.0023	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
gamma-Chlordane	NE	NE	NE	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Heptachlor	0.14	0.654	0.0662	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Heptachlor epoxide	0.072	0.338	0.0082	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Methoxychlor	316	4,100	4.32	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.58 U	0.60 U
Toxaphene	0.493	2.09	0.928	0.072 U	0.078 U	0.073 U	0.074 U	0.072 U	3.5 U	3.6 U

TABLE B-3
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - PCBS AND PESTICIDES
TELEDYNE, WEST ALLIS, WISCONSIN

			Client Sample ID :	TDSB 06-(4-6)-041217	TDSB 07-(6-8)-041217	TDSB 08-(4-6)-041217	TDSB 09-(6-8)-041117	TDSB 10-(6-8)-041117	TDSB 11-(6-8)-041017	TDSB 12-(6-8)-041017
			Date Collected :	4/12/2017	4/12/2017	4/12/2017	4/1/2017	4/1/2017	4/10/2017	4/10/2017
Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL							
PCBS										
Aroclor 1016	4.11	28	0.0094	0.081 U	0.081 U	0.085 U	0.082 U	0.089 U	0.076 U	0.077 U
Aroclor 1221	0.213	0.883	0.0094	0.081 U	0.081 U	0.085 U	0.082 U	0.089 U	0.076 U	0.077 U
Aroclor 1232	0.19	0.792	0.0094	0.081 U	0.081 U	0.085 U	0.082 U	0.089 U	0.076 U	0.077 U
Aroclor 1242	0.235	0.972	0.0094	0.081 U	0.081 U	0.085 U	0.082 U	0.089 U	0.076 U	0.077 U
Aroclor 1248	0.236	0.975	0.0094	0.081 U	0.081 U	0.085 U	0.082 U	0.089 U	0.076 U	0.077 U
Aroclor 1254	0.239	0.988	0.0094	0.081 U	0.081 U	0.085 U	0.082 U	0.089 U	0.076 U	0.077 U
Aroclor 1260	0.243	1	0.0094	0.081 U	0.081 U	0.085 U	0.082 U	0.089 U	0.076 U	0.077 U
Aroclor 1262	NE	NE	NE	0.081 U	0.081 U	0.085 U	0.082 U	0.089 U	0.076 U	0.077 U
Aroclor 1268	NE	NE	NE	0.081 U	0.081 U	0.085 U	0.082 U	0.089 U	0.076 U	0.077 U
PESTICIDES										
4,4´-DDD	2.26	9.57	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
4,4´-DDE	2	9.38	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
4,4´-DDT	1.89	8.53	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	**0.0039 J**	0.012 U
Aldrin	0.04	0.187	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
alpha-BHC	0.086	0.365	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
alpha-Chlordane	NE	NE	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
beta-BHC	0.301	1.28	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Chlordane	1.74	7.76	NE	0.150 U	0.030 U	0.032 U	0.031 U	0.034 U	0.028 U	0.029 U
delta-BHC	NE	NE	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Dieldrin	0.034	0.144	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Endosulfan I	469	7,010	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Endosulfan II	NE	NE	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Endosulfan sulfate	NE	NE	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Endrin	19	246	0.1616	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Endrin aldehyde	NE	NE	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Endrin ketone	NE	NE	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
gamma-BHC	0.568	2.54	0.0023	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
gamma-Chlordane	NE	NE	NE	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Heptachlor	0.14	0.654	0.0662	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Heptachlor epoxide	0.072	0.338	0.0082	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Methoxychlor	316	4,100	4.32	0.061 U	0.012 U	0.013 U	0.012 U	0.014 U	0.011 U	0.012 U
Toxaphene	0.493	2.09	0.928	0.370 U	0.073 U	0.076 U	0.073 U	0.081 U	0.068 U	0.069 U

TABLE B-3
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - PCBS AND PESTICIDES
TELEDYNE, WEST ALLIS, WISCONSIN

			Client Sample ID :	TDSB 13-(4-6)-041017	TDSB 14-(4-6)-041017	TDSB 15-(4-6)-041017	TDSB 16-(2-4)-041017	TDSB 17-(2-4)-042417	TDSB 18-(4-5)-042417	TDSB 19-(2-4)-042417
			Date Collected :	4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/24/2017	4/24/2017	4/24/2017
Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL							
PCBS										
Aroclor 1016	4.11	28	0.0094	0.078 U	0.080 U	0.081 U	0.081 U	0.071 U	0.080 U	0.076 U
Aroclor 1221	0.213	0.883	0.0094	0.078 U	0.080 U	0.081 U	0.081 U	0.071 U	0.080 U	0.076 U
Aroclor 1232	0.19	0.792	0.0094	0.078 U	0.080 U	0.081 U	0.081 U	0.071 U	0.080 U	0.076 U
Aroclor 1242	0.235	0.972	0.0094	0.078 U	0.080 U	0.081 U	0.081 U	0.071 U	0.080 U	0.076 U
Aroclor 1248	0.236	0.975	0.0094	0.078 U	0.080 U	0.081 U	0.081 U	0.071 U	0.080 U	0.076 U
Aroclor 1254	0.239	0.988	0.0094	0.078 U	0.080 U	0.081 U	0.081 U	***0.098***	0.080 U	0.076 U
Aroclor 1260	0.243	1	0.0094	0.078 U	0.080 U	0.081 U	0.081 U	***0.052 J***	0.080 U	***0.029 J***
Aroclor 1262	NE	NE	NE	0.078 U	0.080 U	0.081 U	0.081 U	0.071 U	0.080 U	0.076 U
Aroclor 1268	NE	NE	NE	0.078 U	0.080 U	0.081 U	0.081 U	0.071 U	0.080 U	0.076 U
PESTICIDES										
4,4´-DDD	2.26	9.57	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
4,4´-DDE	2	9.38	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
4,4´-DDT	1.89	8.53	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Aldrin	0.04	0.187	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
alpha-BHC	0.086	0.365	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
alpha-Chlordane	NE	NE	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
beta-BHC	0.301	1.28	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Chlordane	1.74	7.76	NE	0.150 U	0.030 U	0.031 U	0.031 U	1.3 U	1.5 U	1.4 U
delta-BHC	NE	NE	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Dieldrin	0.034	0.144	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Endosulfan I	469	7,010	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Endosulfan II	NE	NE	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Endosulfan sulfate	NE	NE	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Endrin	19	246	0.1616	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Endrin aldehyde	NE	NE	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Endrin ketone	NE	NE	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
gamma-BHC	0.568	2.54	0.0023	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
gamma-Chlordane	NE	NE	NE	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Heptachlor	0.14	0.654	0.0662	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Heptachlor epoxide	0.072	0.338	0.0082	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Methoxychlor	316	4,100	4.32	0.059 U	0.012 U	0.012 U	0.013 U	0.54 U	0.60 U	0.57 U
Toxaphene	0.493	2.09	0.928	0.360 U	0.073 U	0.074 U	0.075 U	3.2 U	3.6 U	3.4 U

TABLE B-3
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - PCBS AND PESTICIDES
TELEDYNE, WEST ALLIS, WISCONSIN

			Client Sample ID :	TDSB 20-(2-4)-042417	TDSB 21-(2-4)-041017	TDSB 22-(4-6)-041117	TDSB 22-(8-10)-041117	TDSB 23-(0-2)-041117	TDSB 24-(4-6)-041117	TDSB 24-(4-6) DUP-041117
			Date Collected :	4/24/2017	4/10/2017	4/11/2017	4/11/2017	4/11/2017	4/11/2017	4/11/2017
Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL							
PCBS										
Aroclor 1016	4.11	28	0.0094	0.073 U	0.076 U	0.088 UJ	0.081 U	0.080 U	0.076 UJ	0.078 UJ
Aroclor 1221	0.213	0.883	0.0094	0.073 U	0.076 U	0.088 UJ	0.081 U	0.080 U	0.076 UJ	0.078 UJ
Aroclor 1232	0.19	0.792	0.0094	0.073 U	0.076 U	0.088 UJ	0.081 U	0.080 U	0.076 UJ	0.078 UJ
Aroclor 1242	0.235	0.972	0.0094	0.073 U	0.076 U	0.088 UJ	0.081 U	0.080 U	0.076 UJ	0.078 UJ
Aroclor 1248	0.236	0.975	0.0094	0.073 U	0.076 U	0.088 UJ	0.081 U	0.080 U	0.076 UJ	0.078 UJ
Aroclor 1254	0.239	0.988	0.0094	0.073 U	0.076 U	0.088 UJ	0.081 U	0.080 U	0.076 UJ	0.078 UJ
Aroclor 1260	0.243	1	0.0094	***0.040 J***	0.076 U	0.088 UJ	0.081 U	0.080 U	0.076 UJ	0.078 UJ
Aroclor 1262	NE	NE	NE	0.073 U	0.076 U	0.088 UJ	0.081 U	0.080 U	0.076 UJ	0.078 UJ
Aroclor 1268	NE	NE	NE	0.073 U	0.076 U	0.088 UJ	0.081 U	0.080 U	0.076 UJ	0.078 UJ
PESTICIDES										
4,4´-DDD	2.26	9.57	NE	0.55 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
4,4´-DDE	2	9.38	NE	0.55 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
4,4´-DDT	1.89	8.53	NE	0.55 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Aldrin	0.04	0.187	NE	0.55 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
alpha-BHC	0.086	0.365	NE	0.55 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
alpha-Chlordane	NE	NE	NE	0.55 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
beta-BHC	0.301	1.28	NE	0.55 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Chlordane	1.74	7.76	NE	1.4 U	0.030 U	0.033 U	0.030 U	0.030 U	0.028 U	0.029 U
delta-BHC	NE	NE	NE	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Dieldrin	0.034	0.144	NE	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Endosulfan I	469	7,010	NE	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Endosulfan II	NE	NE	NE	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Endosulfan sulfate	NE	NE	NE	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Endrin	19	246	0.1616	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Endrin aldehyde	NE	NE	NE	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Endrin ketone	NE	NE	NE	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
gamma-BHC	0.568	2.54	0.0023	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
gamma-Chlordane	NE	NE	NE	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Heptachlor	0.14	0.654	0.0662	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Heptachlor epoxide	0.072	0.338	0.0082	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Methoxychlor	316	4,100	4.32	0.54 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U	0.012 U
Toxaphene	0.493	2.09	0.928	3.3 U	0.072 U	0.079 U	0.073 U	0.072 U	0.068 U	0.070 U

TABLE B-3
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - PCBS AND PESTICIDES
TELEDYNE, WEST ALLIS, WISCONSIN

			Client Sample ID :	TDSB 25-(2-4)-041017	TDSB 25-(4-6)-041017	TDSB 26-(4-6)-041017	TDSB 27-(2-4)-041017	TDSB 27-(4-6)-041017	TDSB 28-(2-4)-041017	TDSB 28-(2-4) DUP-041017
			Date Collected :	4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/10/2017
Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL							
PCBS										
Aroclor 1016	4.11	28	0.0094	0.078 U	0.077 U	0.077 U	0.083 U	0.079 U	0.074 U	0.075 U
Aroclor 1221	0.213	0.883	0.0094	0.078 U	0.077 U	0.077 U	0.083 U	0.079 U	0.074 U	0.075 U
Aroclor 1232	0.19	0.792	0.0094	0.078 U	0.077 U	0.077 U	0.083 U	0.079 U	0.074 U	0.075 U
Aroclor 1242	0.235	0.972	0.0094	0.078 U	0.077 U	0.077 U	0.083 U	0.079 U	0.074 U	0.075 U
Aroclor 1248	0.236	0.975	0.0094	0.078 U	0.077 U	0.077 U	0.083 U	0.079 U	0.074 U	0.075 U
Aroclor 1254	0.239	0.988	0.0094	***0.051 J***	0.077 U	***0.077 J***	0.083 U	***0.056 J***	0.074 U	0.075 U
Aroclor 1260	0.243	1	0.0094	0.078 U	0.077 U	0.077 U	0.083 U	0.079 U	0.074 U	0.075 U
Aroclor 1262	NE	NE	NE	0.078 U	0.077 U	0.077 U	0.083 U	0.079 U	0.074 U	0.075 U
Aroclor 1268	NE	NE	NE	0.078 U	0.077 U	0.077 U	0.083 U	0.079 U	0.074 U	0.075 U
PESTICIDES										
4,4´-DDD	2.26	9.57	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
4,4´-DDE	2	9.38	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
4,4´-DDT	1.89	8.53	NE	0.060 U	0.012 U	0.012 U	0.013 U	**0.0048 J**	0.012 U	0.011 U
Aldrin	0.04	0.187	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
alpha-BHC	0.086	0.365	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
alpha-Chlordane	NE	NE	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
beta-BHC	0.301	1.28	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Chlordane	1.74	7.76	NE	0.150 U	0.029 U	0.029 U	0.031 U	0.031 U	0.029 U	0.029 U
delta-BHC	NE	NE	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Dieldrin	0.034	0.144	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Endosulfan I	469	7,010	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Endosulfan II	NE	NE	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Endosulfan sulfate	NE	NE	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Endrin	19	246	0.1616	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Endrin aldehyde	NE	NE	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Endrin ketone	NE	NE	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
gamma-BHC	0.568	2.54	0.0023	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
gamma-Chlordane	NE	NE	NE	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Heptachlor	0.14	0.654	0.0662	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Heptachlor epoxide	0.072	0.338	0.0082	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Methoxychlor	316	4,100	4.32	0.060 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.011 U
Toxaphene	0.493	2.09	0.928	0.360 U	0.069 U	0.071 U	0.075 U	0.074 U	0.070 U	0.069 U

TABLE B-3
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - PCBS AND PESTICIDES
TELEDYNE, WEST ALLIS, WISCONSIN

			Client Sample ID :	TDSB 28-(4-6)-041017	TDSB 29-(4-6)-041017	TDSB 30-(0-2)-041017	TDSB 30-(4-6)-041017	TDSB 31-(2-4)-041017	TDSB 32-(2-4)-042417
			Date Collected :	4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/24/2017
Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	WDNR Groundwater Pathway RCL						
PCBS									
Aroclor 1016	4.11	28	0.0094	0.078 U	0.078 U	0.079 U	0.077 U	0.077 U	0.074 U
Aroclor 1221	0.213	0.883	0.0094	0.078 U	0.078 U	0.079 U	0.077 U	0.077 U	0.074 U
Aroclor 1232	0.19	0.792	0.0094	0.078 U	0.078 U	0.079 U	0.077 U	0.077 U	0.074 U
Aroclor 1242	0.235	0.972	0.0094	0.078 U	0.078 U	0.079 U	0.077 U	0.077 U	0.074 U
Aroclor 1248	0.236	0.975	0.0094	0.078 U	0.078 U	0.079 U	0.077 U	0.077 U	0.074 U
Aroclor 1254	0.239	0.988	0.0094	0.078 U	0.078 U	0.079 U	0.077 U	**0.0076 J**	0.074 U
Aroclor 1260	0.243	1	0.0094	0.078 U	0.078 U	0.079 U	0.077 U	0.077 U	***0.020 J***
Aroclor 1262	NE	NE	NE	0.078 U	0.078 U	0.079 U	0.077 U	0.077 U	0.074 U
Aroclor 1268	NE	NE	NE	0.078 U	0.078 U	0.079 U	0.077 U	0.077 U	0.074 U
PESTICIDES									
4,4´-DDD	2.26	9.57	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
4,4´-DDE	2	9.38	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
4,4´-DDT	1.89	8.53	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Aldrin	0.04	0.187	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
alpha-BHC	0.086	0.365	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
alpha-Chlordane	NE	NE	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
beta-BHC	0.301	1.28	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Chlordane	1.74	7.76	NE	0.150 U	0.030 U	0.030 U	0.030 U	0.029 U	0.28 U
delta-BHC	NE	NE	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Dieldrin	0.034	0.144	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Endosulfan I	469	7,010	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Endosulfan II	NE	NE	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Endosulfan sulfate	NE	NE	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Endrin	19	246	0.1616	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Endrin aldehyde	NE	NE	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Endrin ketone	NE	NE	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
gamma-BHC	0.568	2.54	0.0023	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
gamma-Chlordane	NE	NE	NE	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Heptachlor	0.14	0.654	0.0662	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Heptachlor epoxide	0.072	0.338	0.0082	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Methoxychlor	316	4,100	4.32	0.061 U	0.012 U	0.012 U	0.012 U	0.012 U	0.11 U
Toxaphene	0.493	2.09	0.928	0.360 U	0.073 U	0.072 U	0.072 U	0.071 U	0.67 U

Notes
All concentrations in milligrams per kilogram (mg/kg)

U - Not Detected
J - Concentration is estimated.
NE - Not established
BOLD - Concentration is above the analytical detection limit.
Italicized values exceed WDNR GW Pathway

TABLE B-4
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - METALS
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	Background Threshold Value	WDNR Groundwater	TDSB 01-(4-6)-041217	TDSB 02-(6-8)-041117	TDSB 02-(8-10)-041117	TDSB 03-(8-10)-041117	TDSB 04-(6-8)-041117	TDSB 05-(8-10)-042417	TDSB 05-(8-10) DUP-042417
Client Sample ID :					TDSB 01-(4-6)-041217	TDSB 02-(6-8)-041117	TDSB 02-(8-10)-041117	TDSB 03-(8-10)-041117	TDSB 04-(6-8)-041117	TDSB 05-(8-10)-042417	TDSB 05-(8-10) DUP-042417
Date Collected :					4/12/2017	4/11/2017	4/11/2017	4/11/2017	4/11/2017	4/24/2017	4/24/2017
INORGANIC COMPOUNDS											
Arsenic	0.677	3	8	0.584	4	6.4	3.9	4.7	6.3	6.4	6.1
Barium	15,300	100,000	364	164.8	74	94	61	110	71	97	84
Cadmium	71.1	985	1	0.752	0.29 J	0.83 U	0.75 U	0.18 J	0.13 J	0.31 J	0.25 J
Chromium	100,000	100,000	44	360,000	16	26	20	31	21 J+	23	22
Lead	400	800	52	27	15	74	12	23	43	120	53
Mercury	3.13	3.13	NE	0.208	0.033	0.057	0.022	0.11	0.059	0.038	0.034
Selenium	391	5,840	NE	0.52	1.8	2.1	1.9	3	1.7	1.1 J	1.1 J
Silver	391	5,840	NE	0.8491	0.039 J	0.13 J	0.069 J	0.14 J	0.046 J	0.18 J	0.13 J

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	Background Threshold Value	WDNR Groundwater	TDSB 06-(4-6)-041217	TDSB 07-(6-8)-041217	TDSB 08-(4-6)-041217	TDSB 09-(6-8)-041117	TDSB 10-(6-8)-041117	TDSB 11-(6-8)-041017	TDSB 12-(6-8)-041017
Client Sample ID :					TDSB 06-(4-6)-041217	TDSB 07-(6-8)-041217	TDSB 08-(4-6)-041217	TDSB 09-(6-8)-041117	TDSB 10-(6-8)-041117	TDSB 11-(6-8)-041017	TDSB 12-(6-8)-041017
Date Collected :					4/12/2017	4/12/2017	4/12/2017	4/11/2017	4/11/2017	4/10/2017	4/10/2017
INORGANIC COMPOUNDS											
Arsenic	0.677	3	8	0.584	4.8	5.9	5.3	8.4	3.8	5.4	4.6
Barium	15,300	100,000	364	164.8	96	64	83	52	110	110	67
Cadmium	71.1	985	1	0.752	0.14 J	0.18 J	0.15 J	0.83 U	0.83 U	0.71 U	0.77 U
Chromium	100,000	100,000	44	360,000	22	20	24	16	36	19	16
Lead	400	800	52	27	29	11	14	14	19	21	23
Mercury	3.13	3.13	NE	0.208	0.073	0.055	0.042	0.02 J	0.025	0.025	0.012 J
Selenium	391	5,840	NE	0.52	1.8 J	1.7 J	2.2	0.85 J	1.8 J	0.79 J	1 J
Silver	391	5,840	NE	0.8491	0.053 J	0.052 J	0.035 J	0.042 J	0.083 J	0.049 J	0.056 J

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	Background Threshold Value	WDNR Groundwater	TDSB 13-(4-6)-041017	TDSB 14-(4-6)-041017	TDSB 15-(4-6)-041017	TDSB 16-(2-4)-041017	TDSB 17-(2-4)-042417	TDSB 18-(4-5)-042417	TDSB 19-(2-4)-042417
Client Sample ID :					TDSB 13-(4-6)-041017	TDSB 14-(4-6)-041017	TDSB 15-(4-6)-041017	TDSB 16-(2-4)-041017	TDSB 17-(2-4)-042417	TDSB 18-(4-5)-042417	TDSB 19-(2-4)-042417
Date Collected :					4/10/2017	4/10/2017	4/10/2017	4/10/2017	4/24/2017	4/24/2017	4/24/2017
INORGANIC COMPOUNDS											
Arsenic	0.677	3	8	0.584	3.7	4.8	5.6	5.5	7.9	13	7.6
Barium	15,300	100,000	364	164.8	93	84	85	170	220	420	280
Cadmium	71.1	985	1	0.752	0.68 U	0.04 J	0.78 U	0.17 J	0.83	0.92	0.8
Chromium	100,000	100,000	44	360,000	21	24	29	23	21	28	19
Lead	400	800	52	27	20	20	13	14	470	490	440
Mercury	3.13	3.13	NE	0.208	0.091	0.054	0.038	0.057	0.098	0.34	0.12
Selenium	391	5,840	NE	0.52	1.2 J	1.4 J	2.1	2.3	1.3 J	1.7 J	1.3 J
Silver	391	5,840	NE	0.8491	0.058 J	0.057 J	0.075 J	0.075 J	0.15 J	0.88 J	0.35 J

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	Background Threshold Value	WDNR Groundwater	TD-SB33 (2-4)-071917	TD-SB34 (2-4)-071917	TD-SB35 (6-8)-071917	TD-SB36 (2-4)-071917	TD-SB37 (4-6)-071917	TD-SB38 (8-10)-071917	TD-SB39 (2-4)-071917
Client Sample ID :					TD-SB33 (2-4)-071917	TD-SB34 (2-4)-071917	TD-SB35 (6-8)-071917	TD-SB36 (2-4)-071917	TD-SB37 (4-6)-071917	TD-SB38 (8-10)-071917	TD-SB39 (2-4)-071917
Date Collected :					7/19/2017	7/19/2017	7/19/2017	7/19/2017	7/19/2017	7/19/2017	7/19/2017
INORGANIC COMPOUNDS											
Arsenic	0.677	3	8	0.584	7.4	11.6	5.5	22.7	11.9	6.6	16.5
Barium	15,300	100,000	364	164.8	30	70.3	134	541	138	53.9	228
Cadmium	71.1	985	1	0.752	0.28	0.2	0.37	3.7	0.17 U	0.12 U	0.83
Chromium	100,000	100,000	44	360,000	9	19.5	20.8	19.2	27.8	19.9	22.5
Lead	400	800	52	27	28.7	24.2	169 J+	1100	66.4	13.6	485
Mercury	3.13	3.13	NE	0.208	0.017	0.07	1	0.12	0.9	0.043	0.2
Selenium	391	5,840	NE	0.52	3.3 U	2.2 J	3.9 J	5.5 U	3.6 J	2.8 J	2.7 J
Silver	391	5,840	NE	0.8491	0.28 J	0.32 J	1.8	0.39 J	0.72 J	0.36 J	0.5 J

TABLE B-4
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - METALS
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	Background Threshold Value	WDNR Groundwater	TDSB 20-(2-4)-042417 4/24/2017	TDSB 21-(2-4)-041017 4/10/2017	TDSB 22-(4-6)-041117 4/11/2017	TDSB 22-(8-10)-041117 4/11/2017	TDSB 23-(0-2)-041117 4/11/2017	TDSB 24-(4-6)-041117 4/11/2017	TDSB 24-(4-6) DUP-041117 4/11/2017
INORGANIC COMPOUNDS											
Arsenic	0.677	3	8	0.584	5.8	5.8	14	12	6.1	13	8.3
Barium	15,300	100,000	364	164.8	88	73	210	110	67	130 J	490 J
Cadmium	71.1	985	1	0.752	0.32 J	0.031 J	0.47 J	0.69 U	0.75 U	0.96	0.58 J
Chromium	100,000	100,000	44	360,000	20	28	210	27	26	74	42
Lead	400	800	52	27	110	14	970	38	56	270	200
Mercury	3.13	3.13	NE	0.208	0.043	0.049	0.3	0.036	0.043	0.15	0.14
Selenium	391	5,840	NE	0.52	1.1 J	2.5	2.2	2.7	1.8 J	1.9	1.3 J
Silver	391	5,840	NE	0.8491	0.093 J	0.028 J	1.5 J	0.1 J	0.1 J	0.37 J	0.67 J

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	Background Threshold Value	WDNR Groundwater	TDSB 25-(2-4)-041017 4/10/2017	TDSB 25-(4-6)-041017 4/10/2017	TDSB 26-(4-6)-041017 4/10/2017	TDSB 27-(2-4)-041017 4/10/2017	TDSB 27-(4-6)-041017 4/10/2017	TDSB 28-(2-4)-041017 4/10/2017	TDSB 28-(2-4) DUP-041017 4/10/2017
INORGANIC COMPOUNDS											
Arsenic	0.677	3	8	0.584	4.6	5.2	2.4	5.1	5.5	4.9	4.6
Barium	15,300	100,000	364	164.8	120	39	59	100	98	83	78
Cadmium	71.1	985	1	0.752	0.17 J	0.71 U	0.67 U	0.19 J	0.21 J	0.13 J	0.098 J
Chromium	100,000	100,000	44	360,000	17	16	16	24	27	14	12
Lead	400	800	52	27	54	13	14	15	16	20	11
Mercury	3.13	3.13	NE	0.208	0.38	0.014 J	0.5	0.045	0.056	0.021	0.016 J
Selenium	391	5,840	NE	0.52	0.98 J	1 J	1 J	1.4 J	1.5 J	1.5 J	1.7 J
Silver	391	5,840	NE	0.8491	0.084 J	0.046 J	0.053 J	0.079 J	0.07 J	0.032 J	0.03 J

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	Background Threshold Value	WDNR Groundwater	TDSB 28-(4-6)-041017 4/10/2017	TDSB 29-(4-6)-041017 4/10/2017	TDSB 30-(0-2)-041017 4/10/2017	TDSB 30-(4-6)-041017 4/10/2017	TDSB 31-(2-4)-041017 4/10/2017	TDSB 32-(2-4)-042417 4/24/2017
INORGANIC COMPOUNDS										
Arsenic	0.677	3	8	0.584	4.3	3.3	5.2	4.5	4.6	3.6
Barium	15,300	100,000	364	164.8	65	77	110	55	91	61
Cadmium	71.1	985	1	0.752	0.15 J	0.061 J	0.67 U	0.032 J	0.14 J	0.24 J
Chromium	100,000	100,000	44	360,000	15	22	24	20	19	19
Lead	400	800	52	27	30	17	33	18	56	77
Mercury	3.13	3.13	NE	0.208	0.46	0.055	0.052	0.18	0.54	0.085
Selenium	391	5,840	NE	0.52	1.3 J	1.2 J	1.2 J	0.75 J	0.97 J	0.87 J
Silver	391	5,840	NE	0.8491	0.043 J	0.067 J	0.085 J	0.029 J	0.075 J	0.077 J

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	Background Threshold Value	WDNR Groundwater	TD-SB40 (2-4)-071917 7/19/2017	TD-SB41 (2-6)-071917 7/19/2017	TD-SB42 (4-6)-071917 7/19/2017	TD-SB43 (2-4)-071917 7/19/2017	TD-SB44 (2-4)-071917 7/19/2017	TD-SB45 (4-6)-071917 7/19/2017
INORGANIC COMPOUNDS										
Arsenic	0.677	3	8	0.584	50.1	14.9	13.2	32.5	10.2	23.4
Barium	15,300	100,000	364	164.8	48.1	62.1	99.7	451	2470	212
Cadmium	71.1	985	1	0.752	53.4	2.1	0.67	3.7	0.41	2.3
Chromium	100,000	100,000	44	360,000	386	15	28	59.2	27.6	64.1
Lead	400	800	52	27	61.4	328	164	460	123	375
Mercury	3.13	3.13	NE	0.208	0.035	0.062	0.13	0.096	0.088	0.42
Selenium	391	5,840	NE	0.52	4.2 U	4 U	3.3 J	4.3 U	3.8 U	4.7 U
Silver	391	5,840	NE	0.8491	1.2	0.48 J	0.55 J	1.9	0.43 J	0.96

TABLE B-4
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - METALS
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WDNR Non-Industrial D-C RCL	WDNR Industrial D-C RCL	Background Threshold Value	WDNR Groundwater	TD-SB46 (4-8)-071917 7/19/2017	TD-SB46 (4-8)-071917D 7/19/2017	TD-SB47 (2-4)-071917 7/19/2017
				Client Sample ID : Date Collected :			
INORGANIC COMPOUNDS							
Arsenic	0.677	3	8	0.584	***20.5***	***38.7***	**7.8**
Barium	15,300	100,000	364	164.8	**284**	***429***	**62.5**
Cadmium	71.1	985	1	0.752	**0.45**	**0.91**	**0.33**
Chromium	100,000	100,000	44	360,000	**16.8 J**	**37 J**	**8.3**
Lead	400	800	52	27	***454***	***841***	***159***
Mercury	3.13	3.13	NE	0.208	***0.21 J***	***0.77 J***	***0.21***
Selenium	391	5,840	NE	0.52	***2.8 J***	***3.3 J***	***2.6 J***
Silver	391	5,840	NE	0.8491	**0.47 J**	**0.6 J**	**0.29 J**

Notes
All concentrations in milligrams per kilogram (mg/kg)

U - Not Detected
J - Concentration is estimated.
J+ :The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J- :The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NE - Not established
BOLD - Concentration is above the analytical detection limit.
Italicized values exceed WDNR GW Pathway and Background Threshold Value
- Concentration exceeds WDNR Industrial Direct Contact RCL and Background Threshold Value
- Concentration exceeds WDNR Non-Industrial Direct Contact RCL and Background Threshold Value

TABLE B-5
SUMMARY OF SOIL SAMPLE LABORATORY ANALYTICAL RESULTS - WASTE PROFILE
TELEDYNE, WEST ALLIS, WISCONSIN

	Soil Cuttings 4/24/2017
TCLP VOLATILE ORGANIC COMPOUNDS	
1,1-Dichloroethene	0.0055 U
1,2-Dichloroethane	0.0033 U
2-Butanone	0.012 U
Benzene	**0.0084 J**
Carbon tetrachloride	0.0062 U
Chlorobenzene	0.0054 U
Chloroform	0.0051 U
Tetrachloroethene	0.0055 U
Trichloroethene	0.006 U
Vinyl chloride	0.0041 U
TCLP SEMI-VOLATILE ORGANIC COMPOUNDS	
1,4-Dichlorobenzene	0.0064 U
2,4,5-Trichlorophenol	0.0034 U
2,4,6-Trichlorophenol	0.005 U
2,4-Dinitrotoluene	0.0084 U
Hexachloro-1,3-butadiene	0.0056 U
Hexachlorobenzene	0.0088 U
Hexachloroethane	0.0042 U
m-Cresol	0.0039 U
Nitrobenzene	0.0052 U
o-Cresol	0.004 U
p-Cresol	0.0039 U
Pentachlorophenol	0.019 U
Pyridine	0.002 U
PCBS	
Aroclor 1016	0.011 U
Aroclor 1221	0.011 U
Aroclor 1232	0.011 U
Aroclor 1242	0.011 U
Aroclor 1248	0.011 U
Aroclor 1254	0.0074 U
Aroclor 1260	0.0074 U
Aroclor 1262	0.0074 U
Aroclor 1268	0.0074 U
PCBs Total	0.0074 U
TCLP MERCURY BY CVAA	
Mercury	0.00019 U
TCLP METALS BY ICP	
Arsenic	0.016 U
Barium	**0.94**
Cadmium	**0.012 J**
Chromium	0.0017 U
Lead	**1.2**
Selenium	0.032 U
Silver	0.0028 U
CYANIDE, REACTIVE	22 U
SULFIDE, REACTIVE	46 U
PAINT FILTER (FREE LIQUIDS)	None
pH	7.53

Notes
All concentrations in milligrams per kilogram (mg/kg)

U - Not Detected
J - Concentration is estimated.
BOLD - Concentration is above the analytical detection limit.

TABLE B-6
SUMMARY OF GROUNDWATER SAMPLE LABORATORY ANALYTICAL RESULTS
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WAC Chapter NR 140 ES	WAC Chapter NR 140 PAL	EPA MCLs	1705183-01 TDMW1-050217 5/02/2017 09:45	1705183-05 TDMW2-050217 5/02/2017 13:10	1705183-04 TDMW3-050217 5/02/2017 12:25	1705183-03 TDMW4-050217 5/02/2017 11:35	1705183-02 TDMW5-050217 5/02/2017 10:40
VOLATILE ORGANIC COMPOUNDS								
Acetone	9,000	1,800	NE	**2 J**	10 U	10 U	10 U	10 U
Benzene	5	0.5	5	1 U	**58**	1 U	**7.9**	1 U
Bromodichloromethane	0.6	0.06	80	1 U	1 U	1 U	1 U	1 U
Bromoform	4.4	0.44	80	1 U	1 U	1 U	1 U	1 U
Bromomethane	10	1	NE	1 U	1 U	1 U	1 U	1 U
2-Butanone	4,000	800	NE	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	1,000	200	NE	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	5	0.5	5	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	NE	NE	NE	1 U	1 U	1 U	1 U	1 U
Chloroethane	400	80	NE	1 U	1 U	1 U	1 U	1 U
Chloroform	6	0.6	80	1 U	`	1 U	1 U	1 U
Chloromethane	30	3	NE	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	60	6	80	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	850	85	NE	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	0.5	5	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7	0.7	7	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	7	70	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	20	100	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	0.5	5	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	0.04	NE	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	0.4	0.04	NE	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	140	700	1 U	**34**	1 U	**88**	**21**
2-Hexanone	NE	NE	NE	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	500	50	NE	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5	0.5	5	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether	60	12	NE	1 U	1 U	1 U	1 U	1 U
Styrene	100	10	100	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.2	0.02	NE	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	0.5	5	1 U	1 U	1 U	1 U	1 U
Toluene	800	160	1,000	1 U	**2.7**	1 U	**0.86 J**	1 U
1,1,1-Trichloroethane	200	40	NE	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	0.5	5	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	0.5	5	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	0.2	0.02	2	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	2,000	400	10,000	3 U	**76**	3 U	**84**	**57**
POLYNUCLEAR AROMATIC HYDROCARBONS								
2-Chloronaphthalene	NE	NE	NE	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U
2-Methylnaphthalene	NE	NE	NE	0.1 U	**14**	**1**	**2.5**	**1.9**
Acenaphthene	NE	NE	NE	0.1 U	0.11 U	0.1 U	**0.22**	0.1 U
Acenaphthylene	NE	NE	NE	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U
Anthracene	3,000	600	NE	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U
Benz(a)anthracene	NE	NE	NE	**0.35**	0.11 U	0.1 U	**0.28**	**0.19**
Benzo(a)pyrene	0.2	0.02	0.2	**0.31**	0.11 U	0.1 U	**0.2**	**0.15**
Benzo(b)fluoranthene	0.2	0.02	NE	**0.54**	0.11 U	0.1 U	**0.29**	**0.22**
Benzo(g,h,i)perylene	NE	NE	NE	**0.24**	0.11 U	0.1 U	**0.11 J**	**0.08 J**
Benzo(k)fluoranthene	NE	NE	NE	**0.18**	0.11 U	0.1 U	**0.12**	**0.09 J**
Chrysene	0.2	0.02	NE	**0.11**	0.11 U	0.1 U	0.11 U	0.1 U
Dibenz(a,h)anthracene	NE	NE	NE	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U
Fluoranthene	400	80	NE	**1.5**	0.11 U	**0.38**	**1.1**	**0.73**
Fluorene	400	80	NE	0.1 U	0.27	0.1 U	**0.085 J**	0.1 U
Indeno(1,2,3-cd)pyrene	NE	NE	NE	**0.27**	0.11 U	0.1 U	**0.16**	**0.11**
Naphthalene	100	10	NE	0.1 U	**26**	0.1 U	**7.5**	**4.7**
Phenanthrene	NE	NE	NE	**0.83**	0.11 U	0.1 U	**0.71**	**0.22**
Pyrene	250	50	NE	**1.1**	0.11 U	**0.070 J**	**0.56**	**0.34**

TABLE B-6
SUMMARY OF GROUNDWATER SAMPLE LABORATORY ANALYTICAL RESULTS
TELEDYNE, WEST ALLIS, WISCONSIN

Analyte	WAC Chapter NR 140 ES	WAC Chapter NR 140 PAL	EPA MCLs	1705183-01 TDMW1-050217 5/02/2017 09:45	1705183-05 TDMW2-050217 5/02/2017 13:10	1705183-04 TDMW3-050217 5/02/2017 12:25	1705183-03 TDMW4-050217 5/02/2017 11:35	1705183-02 TDMW5-050217 5/02/2017 10:40
PCBS								
Aroclor 1016	0.03	0.003	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor 1221	0.03	0.003	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor 1232	0.03	0.003	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor 1242	0.03	0.003	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor 1248	0.03	0.003	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor 1254	0.03	0.003	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor 1260	0.03	0.003	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor 1262	0.03	0.003	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor 1268	0.03	0.003	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
PESTICIDES								
4,4´-DDD	NE	NE	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
4,4´-DDE	NE	NE	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
4,4´-DDT	NE	NE	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Aldrin	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
alpha-BHC	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
alpha-Chlordane	2	0.2	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
beta-BHC	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chlordane	2	0.2	NE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
delta-BHC	NE	NE	NE	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Dieldrin	NE	NE	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Endosulfan I	NE	NE	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Endosulfan II	NE	NE	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Endosulfan sulfate	NE	NE	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Endrin	2	0.4	2	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Endrin aldehyde	NE	NE	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Endrin ketone	NE	NE	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
gamma-BHC	0.2	0.002	0.2	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
gamma-Chlordane	2	0.2	NE	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Heptachlor	0.4	0.04	0.4	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Heptachlor epoxide	0.2	0.02	0.2	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Methoxychlor	40	4	40	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Toxaphene	3	0.3	3	2 U	2 U	2 U	2 U	2 U
INORGANIC COMPOUNDS								
Arsenic	10	1	10	**1.4 J**	**3.2 J**	**1.1 J**	**1.5 J**	**1.5 J**
Barium	2,000	400	2,000	**74**	**630**	**150**	**130**	**62**
Cadmium	5	0.5	5	**0.091 J**	2 U	2 U	2 U	2 U
Chromium	100	10	100	5 U	5 U	5 U	5 U	5 U
Lead	15	1.5	15	5 U	**0.72 J**	5 U	**0.34 J**	5 U
Mercury	2	0.2	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	50	10	50	**1.1 J**	5 U	5 U	5 U	5 U
Silver	50	10	NE	5 U	5 U	5 U	5 U	5 U

Notes
All concentrations in micrograms per liter (µg/L)
U : Not Detected
J : Concentration is estimated
NE - Not established
BOLD - Concentration is above the analytical detection limit.
- Concentration of compound exceeds WDNR Preventive Action Limit
- Concentration exceeds WDNR Enforcement Standard

APPENDIX C
PHOTOGRAPHIC LOG

TD-SB39 0-12’

TD-SB39 0-12’

TD-SB36 0-15’

TD-SB36 top of 4-8’ section

TD-SB35 0-15’

TD-SB34 0-15’

TD-SB44 0-4’

TD-SB44 middle of 0-4’ section

TD-SB33 0-12’

TD-SB33 0-12’

TD-SB45 0-12’

TD-SB45 4-12’

TD-SB42 0-4’

Drill rig at TD-SB 42

Drill rig at TD-SB36

Looking to the northwest corner of site

Looking to the north of the site (Burnham St)

Looking to the northeast corner of the site

Looking to the east northeast portion of the site

Looking to the east (north of fenceline)

Looking to the southeast corner of the site (west of the fence)

Looking to the southwest corner of the site (corner of Rogers and 53rd)

Looking to the west of the site, 53rd St

Example of monitoring well (MW-5)

Inside of MW-5 with well plug in

Inside of MW-5, well plug removed, sampling tubing in well

APPENDIX D
FIELD FORMS

SOIL BORING LOGS

WELL CONSTRUCTION FORMS

BOREHOLE ABANDONMENT FORMS

FIELD WATER QUALITY FORMS

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-1

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/12/2017	4/12/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VZ510		MW-1	Feet MSL	Feet MSL	6.3 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 43		1	TOPSOIL, dark brown, organics.	Topsoil									
				FILL, gray gravel, no odor, dry, <1.5".	Fill									
			2 3 4	SILTY CLAY,10yr 5/6, stained black in spots, dry, no odor, 35% silt, low plasticity.	CL-ML			1.8						
	60 27		5	SANDY CLAY, stained black, odor present, wet, medium plasticity, poorly sorted sand.	SP-SC			2.0						
			6 7 8 9	GRAVELLY SAND, 15% gravel, mild odor, wet, sand poorly sorted.	SPG			2.5 2.1						
	60 58		10 11 12 13 14 15	SANDY SILT, wet, 10YR 5/4, fine sand, 40% sand, very odorous.	MLS			48.5 203.5 2.6 1.6						

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

Signature	Firm	Tel:
Ashley Kowalewski	tetra tech	Fax:

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-2

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/11/2017	4/11/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VZ511		MW-2	Feet MSL	Feet MSL	6.3 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 30		1	TOPSOIL, dark brown, organics.	Topsoil									
			2 3 4 5	FOUNDRY FILL, odorous, black to orange in color, cinders present, low to medium moisture	Foundry Fill			0.9 16.9						
	60 34		6	CLAY, stained black, medium plasticity, very odorous, medium to high moisture.	CL-CH			1276						
			7 8 9	CLAY, stained light green-gray, high plasticity, moist, very odorous.	CL-CH			1334						
	60 46		10	SANDY GRAVEL MIX, sand poorly sorted, gravel <1.5", wet, oil sheen seen in water.	SPG			105.3						
			11 12 13 14 15	SANDY SILT, 10YR 4/4, black staining through out section, wet, sand is fine, mild to medium odor.	SP-SM			122.8 20.6 11.5						

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

Signature	Firm	Tel:
Ashley Kowalewski	tetra tech	Fax:

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-3

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/11/2017	4/11/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VZ512		MW-3	Feet MSL	Feet MSL	6.3 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 Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 34		1	TOPSOIL, dark brown, organics.	Topsoil									
			2	FILL, foundry fill, no odor, dry.				0						
			3											
			4		Foundry fill			0						
	60 22		5											
			6					0						
			7	CLAY, 10YR 5/4, high plasticity, 2 inch section stained black at bottom of section, medium moisture, mild odor.										
			8					0						
			9		CH									
	60 54		10					0						
			11	SILTY CLAY, stained black, strong odor, wet, low plasticity.										
			12		CL-ML			0.1						
			13											
			14	CLAY, 10YR 6/4, wet, low plasticity, odorous.	CL			0.2						
			15					0.3						

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

Signature	Firm	Tel:
Ashley Kowalewski	tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-4

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/11/2017	4/11/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VZ513		MW-4	Feet MSL	Feet MSL	6.3 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 32			TOPSOIL, dark brown.	Topsoil									
			1 2 3 4	GRAVELY SILTY SAND MIX, poorly graded, 10YR 4/4, 65% sand: medium to fine, 15% gravel: subangular to subrounded, gravel <1", 20% silt, no odor, dry.	SPG			1.3 5.9						
	60 23		5 6					4.4						
			7	CLAY, good plasticity, 10YR 4/6, medium moisture, mild odor.	CL-CH									
			8 9	SILTY SAND, poorly graded, 10YR 2/1, mild odor, wet, 30% silt, 70% sand, sand coarse to fine.	SP-SM			9.4						
	60 40		10					20.3						
			11 12 13	SILTY CLAY, low plasticity, oil sheen visible on sample, very strong odor, 7 inch section stained black, 10YR 5/1, sand 35% very fine.	CL-ML			889.2						
			14					126.2						
			15					44.8						

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Signature	Firm	Tel:
Ashley Kowalewski	tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-5

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/24/2017	4/24/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 35			TOPSOIL. Dark brown topsoil with grass and roots.	Topsoil									
			2	CLAY FILL. Gray clay fill with trace silt, dense, moderate to high plasticity, mosit, no odor.	Fill			1.2						
	60 40		4 6	FILL. Dark gray to black, fine to medium grained sand fill (possibly foundry sand), few coarse grained sand to fine grained gravel, pieces of slag, moist, weak odor. 1" sandy clay lenses spread interspersed.	Fill			24.1 16.4						
			8	SILTY CLAY. Brown mottled gray silty clay, low to moderate plasticity, moist, no odor.	CL-ML CLS CL-ML			6.7						
			10	SANDY CLAY. Black sandy clay, little to no plasticity, moist, no odor.				28.1						
				SILT WITH CLAY. Brown mottled gray silt with clay, little to no plasticity, moist to wet (top of water table, not saturated), weak to no odor.										

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

Signature	Firm	Tel:
Ashley A. Weiner	tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-6

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/12/2017	4/12/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 48			TOPSOIL, dark brown, organics, no odor.	Topsoil									
				FILL, foundry material, dry, no odor.	Fill									
			2	SANDY CLAY, 10YR 4/6, no odor, sand 35%, poorly sorted sand, black streaks in clay, mottled black, no odor.	SP-SC			0.9						
			4	CLAY, low plasticity, moist, 10YR 3/4, stained black last 2 inches of section, strong odor.	CL			26.4						
	60 44		6					99.1						
				SANDY GRAVEL, wet, strong odor, product present., dark brown to black.	GPS									
			8	SILTY SAND, very fine sand, wet, strong odor, black streaks in sand silt mix, 65% sand, 35% silt, 10YR 5/1.	SW-SM			294.2						
			10					392.4						

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Ashley Kowalewski	tetra tech	Fax:

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-7

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/12/2017	4/12/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 46			TOPSOIL, dark brown, no odor, organics.	Topsoil									
			2	FILL, foundry, dry, no odor, reddish brown, orange.	Fill			0.2						
				SILTY CLAY, 10% fine sand, dry, crumbly, no odor, 10YR 4/6.	CL-ML									
			4	CLAY, medium plasticity, stained black, no odor, moist.	CL-CH			0.2						
	60 48		6					0.2						
			8	SILTY SAND, very fine sand, sand 70%, silt 30%, 10YR 6/1, wet, strong odor.	SM			0.1						
			10					0.6						

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-8

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/12/2017	4/12/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 46			TOPSOIL, dark brown, organics.	Topsoil									
			2	FILL, foundry, dry, dark brown and orange, no odor.	Fill			0.7						
			4	SILTY CLAY, with sand, 10YR 5/1, wet, odorless, low plasticity.	CL-ML			0.1						
	60 42		6	CLAY, medium plasticity, 10YR 5/1, odor present, wet, mottled orange.	CL-CH			0.7						
			8	SILTY SAND, wet, odorous, fine sand, 65% sand, 35% silt.	SP-SM			1.7						
			10					200.3						

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-9

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/11/2017	4/11/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 32			TOPSOIL, brown, organics.	Topsoil									
			2	GRAVELY SAND, 10YR 2/1, no odor, moderately moist, bright green (foundry fill), orange, and white,	SPG			1.4						
			4					4.7						
	60 32		6	CLAY, tight, 10YR 5/2, low to medium plasticity, light green staining, medium to low moisture.	CL-CH			2.2						
			8					104.1						
			10	SILTY CLAY, 10YR 5/6, wet, mild odor, stained black in areas or section, ~60% silt	CL-ML			13.7						

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-10

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 49			TOPSOIL, dark brown, no odor.	Topsoil									
				FILL, foundry fill, cinders, mild odor, medium moisture.	Fill									
			2	CLAY, low plasticity, tight, dryer, stained black in sections, 10YR 4/5-5/4, strong odor.				2039						
			4					15000						
	60 58				CL									
			6					15000						
			8					15000						
			10	SAND, medium, subangular to subrounded, wet, odorous.	SW			15000						

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-11

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 32			TOPSOIL, dark brown, organics.	Topsoil									
			2	FILL, dark black, VERY odorous, some moisture, coarse sand and gravel mix.	Fill			5.8						
			4	GRAVELLY CLAY, very odorous, dryer, 10YR 5/1, gravel <1", low plasticity.	CLG			682.1						
	60 46		6					1003						
			8	SANDY SILT, very odorous, dark grey to black in color, very fine sand, 10YR 5/1, wet.	MLS			1280						
			10	CLAY, low plasticity, odorous, 10YR 5/1, wet.	CL-ML			2332						

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Ashley Kowalewski	tetra tech	Fax:

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-12

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 37			TOPSOIL, dark brown, organics.	Topsoil									
			2	FILL, coarse grain sand, gravel <1.5", possible brick pieces in fill as well (orange), no odor, dry.	Fill			2.6						
			4	GRAVELLY SAND, 10YR 4/4, medium moisture, medium to coarse sand, <1" gravel, 70% sand, 20% gravel, 10% silt,	SPG			1.8						
	60 40		6	SANDY SILT, with gravel (10%), 60% silt, 30% sand, 10YR 5/2, odor present, medium grained sand.	MLS			285.3						
			8	GRAVELLY SAND, 10YR 5/1, mild odor, wet, coarse sand 70%, gravel 20%, silt 10%.	SPG			580.7						
			10					124.6						

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Signature	Firm	Tel:
Ashley Kowalewski	tetra tech	Fax:

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-13

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 41			TOPSOIL, dark brown, organics.	Topsoil									
			2	FILL, gravel 20%, medium sand 70%, silt 10%, stained at bottom of section, 10YR 4/4, mild odor, medium moisture.	Fill			28.7						
			4					190.8						
	60 59		6	SANDY CLAY, low plasticity, 10YR 4/6, medium moisture, mild odor, fine sand 20%.	CLS GPS			314.2						
			8	SANDY GRAVEL, with silt, poorly graded, 10YR 2/1, medium moisture, odorous.	CL			85.6						
				CLAY, low plasticity, very mild odor, crumbly, wet, 10YR 5/6.	SM									
			10	SILTY SAND, 10YR 2/1, very fine sand 70%, silt 30%, stained black in spots throughout, odor present, wet.				1680						

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

Signature	Firm	Tel:
Ashley Kowalewski	tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-14

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 43			TOPSOIL, dark brown, organics.	Topsoil									
			2	FILL, light tan gravel, dry, no odor.	Fill			14.1						
			4	CLAY, medium plasticity, low moisture, stained black, no odor.	CL-CH			14.3						
	60 52		6	SANDY CLAY, trace pebbles <5%, fine sand 10%, 10YR 3/4, mottled orange, wet, low plasticity.	CLS			15.9						
			8	SANDY SILT, wet, stained black in parts, very fine sand 30%, 10YR 3/4, very mild odor.	MLS			14.6						
			10					93.7						

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-15

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 40			TOPSOIL, dark brown, organics, no odor.	Topsoil									
			2	SANDY CLAY, 10YR 3/4, dry, mild odor, low plasticity, 20% fine sand, black staining throughout, trace pebbles.	CLS			10.2						
			4					16.7						
	60 51							20.2						
			6	CLAY, medium plasticity, 10YR 5/4, mottled orange, wet, no odor.	CL-CH			13.3						
			8	SILTY CLAY, mottled orange, wett, 10YR 5/4 to 5/1, low plasticity, no odor present.	CL-ML			16.7						
			10											

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-16

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 53			TOPSOIL, dark brown, organics, no odor.	Topsoil									
			2	FILL, coarse sand gravel mix, <1" size gravel, dry, no odor.	Fill			17.7						
			4	CLAY, low moisture, low plasticity, 10YR 3/4, stained black at bottom of section, no odor.	CL			20.1						
	60 40		6	SANDY CLAY, 10YR 4/4, <15% fine sand, very moist, no odor, some staining, moist at bottom of section, low plasticity.	CLS			6.8						
			8	SANDY SILT, wet, 10YR 4/4, medium to fine sand 20%, no odor.	MLS			7.9						
			10					8.7						

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-17

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/24/2017	4/24/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 30			TOPSOIL. Dark brown topsoil with grass and roots.	Topsoil Fill									
			2	CLAY FILL. Gray clay fill with trace silt, dense, moderate to high plasticity, mosit, no odor.	Fill			0.0						
			4	FILL. Dark brownish gray sandy clay fill, moist, no odor.				1.1						
	60 34		6	FILL. Dark gray to black sand fill (possibly foundry sand), with some fines, no plasticity, moist, no odor. Wet at ~5.9 ft bgs.	Fill Fill			0.7						
			8	FILL. Brown well graded sand and gravel fill, with few fines, wet, no odor.	Fill Fill			0.3						
			10	FILL. Dark gray to black well graded sand and gravel fill, with few fines, wet, no odor.	CL-ML			0.3						
				FILL. Reddish brown well graded gravel fill, with little to no fines, wet, no odor.										
				SILTY CLAY. Gray mottled brown, silty clay, moist, no odor.										

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

Signature	Firm	Tel:
Ashley A. Weimer	tetra tech	Fax:

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-18

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/24/2017	4/24/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 33			TOPSOIL. Dark brown topsoil with grass and roots.	Topsoil									
			2	CLAY FILL. Gray clay fill with trace coarse grained sand, dense, moderate to high plasticity, mosit, no odor.	Fill			0.1						
			4	FILL. Tannish gray sand and gravel fill with well graded gravel, moist, no odor.	Fill			0.5						
	60 13		6	FILL. Gray to black with some orange sand and gravel fill (possible foundry fill), pieces of glass and bricks, moist, no odor.	Fill			1.1						
			8	FILL. Gray to black with some orange sand and gravel fill with some clay (possible foundry fill), pieces bricks, moist, no odor.	Fill									
			10	FILL. Gray to black with some orange sand and gravel fill with some clay (possible foundry fill), pieces metal, wet, no odor.				0.2						

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-19

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/24/2017	4/24/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 35			TOPSOIL. Dark brown topsoil with grass and roots.	Topsoil									
			2	CLAY FILL. Gray clay fill with trace silt, dense, moderate to high plasticity, mosit, no odor.	Fill			0.4						
			4	FILL. Brown sand and gravel fill with trace clay and few fine grained gravel. Pieces of glass, rubber, slag and bricks.	Fill			0.7						
	60 30		6	FILL. Brown (5-7.3 ft bgs), reddish brown (7.3-7.7 ft bgs), black (7.7-8 ft bgs) and grayish brown (8-8.5 ft bgs) sand and gravel fill, moist to wet, wet at ~6 ft, no odor.	Fill			0.3						
			8					0.2						
			10	SILTY CLAY. Gray mottled brown silty clay, wet, no odor.	CL-ML			0.5						

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-20

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/24/2017	4/24/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				TOPSOIL. Dark brown topsoil with grass and roots.	Topsoil									
			2	CLAY FILL. Gray clay fill with trace silt, dense, moderate to high plasticity, mosit, no odor.	Fill			0.5						
			4	CLAY FILL. Dark grayish brown sandy clay fill with trace fine grained gravel, dense, moderate to high plasticity, mosit, no odor.	Fill Fill Fill			2.2						
	60 35		6	FILL. Off white well graded gravel fill, moist, no odor.				0.5						
			8	CLAY FILL. Dark grayish brown sandy clay fill with trace fine grained gravel, dense, moderate to high plasticity, mosit, no odor.	Fill			0.6						
	60 25		10	FILL. Black sand fill (possibly foundry sand) with few fines, moist, no odor.	Fill			0.3						
				FILL. Dark brown sand fill (possibly foundry sand) with few fines, wet, no odor.										
				FILL. Grayish brown sandy clay fill, little to no plasticity, moist to wet, no odor.										

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Signature	Firm	Tel:
Ashley A. Weimer	tetra tech	Fax:

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-21

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 50			TOPSOIL, dark brown, no odor, organics.	Topsoil									
			2	SANDY CLAY, 10YR 4/4, 15% fine sand, dry, no odor, low plasticity.	CLS			2.5						
			4					4.4						
	60 57		6	SAND, poorly graded, wet, angular to subangular, no odor.	SP			5.4						
			8	CLAY, low plasticity, very tight, 10YR 5/4, mottle white, low moisture content.	CL			15.4						
	60 58		10	SANDY SILT, moist, no odor, 10YR 5/4, 20% fine sand.	MLS			13.6						
			12	CLAY, 10YR 5/4, wet, no odor, medium to high plasticity.	CL-CH			9.3						
			14					9.3						
								10.1						

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Signature	Firm	Tel:
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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-22

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/11/2017	4/11/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 38			TOPSOIL, dark brown, organics.	Topsoil									
			2	FOUNDRY FILL, orange, light greens, white, black, and reddish brown in color, no odor.	Foundry Fill			5.2						
			4	SAND, medium grained, well sorted, dark red and tan 10YR 3/4 and 7/4, medium moisture, mild odor.	SW			2.8						
	60 28		6	GRAVELLY SAND, poorly graded, clay present, very odorous, dark black stained in color, 60% sand, 25% clay, 15% gravel, wet.	SP-SC			701.8						
			8	CLAY, low plasticity, medium to low moisture, stained black, strong odor.	CL			507.3						
			10	CLAY, light green in color, mottled orange, strong odor, tight, low plasticity.	CL			140.6						

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-23

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/11/2017	4/11/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 33			TOPSOIL, dark brown, organics.	Topsoil									
			2	FILL, foundry fill, mild odor.	Foundry fill			166.8						
			4	SANDY CLAY with gravel, 10YR 3/4, black streaking, medium moisture, low plasticity, gravel <1", mild odor.	CLS			18.9						
	60 20		6	GRAVELLY SAND, dark brown to black, oily sheen present, wet, odorous, 70% sand, 30% gravel.	SPG			715.8						
			8	SILTY CLAY, low plasticity, stained black, very wet, odorous, very fine trace sand.	CL-ML			857.7						
			10	CLAY, very tight, low plasticity, black streaks, strong odor, green in color.	CL			478.3						

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

Signature	Firm	Tel:
Ashley Kowalewski	tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-24

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/11/2017	4/11/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 29			TOPSOIL, dark brown, organics.	Topsoil									
			2	GRAVELY SAND, poorly graded sand, silt, dry and crumbly, 10YR 5/4, no odor.	SPG			1.0						
			4	CLAY, black stained clay, medium moisture, medium plasticity, moderate odor present.	CL-CH			1.8						
	60 24		6	SILTY SAND, 10YR 2/1, wet, chunks of clay present, poorly sorted sand 60%, mild odor.	SP-SM			63.8						
			8	CLAY, low to medium plasticity, stained green, mottled orange, very odorous, wet.	CL-ML			15.3						
			10					56.8						

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-25

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 37			TOPSOIL, dark brown, organics.	Topsoil									
			2	FILL, gravel and coarse sand mix, no odor, dry.	Fill			8.8						
			4	SILTY GRAVEL, poorly graded gravel with very coarse sand 75%, silt 25%, no odor, medium moisture, 10YR 4/4.	GP-GM			25.5 130.4						
	60 58		6	SAND, poorly graded, more coarse towards bottom of section, angular, wet, strong odor, 10YR 4/4, sections stained black.	SP			15000						
			8					15000						
			10											

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-26

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 36			TOPSOIL, dark brown, organics, no odor.	Topsoil									
			2	FILL, moist, angular pieces of gravel <2", no odor.	Fill			7.0						
			4	SANDY SILT, very coarse sand 35%, some gravel 5%, medium moisture, odor present, 10YR 3/2.	MLS			2139						
	60 38		6	SANDY CLAY, fine sand 15%, mild odor, light green staining, 10YR 3/2, low plasticity, wet.	CLS			46.6						
			8	SANDY SILT, trace gravel pieces 5%, very fine sand 30%, 10YR 4/3, wet, mild odor.	MLS			15.2						
			10					14.7						

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-27

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 38			TOPSOIL, dark brown, no odor, organic.	Topsoil									
				FILL, dry, no odor, gravel pieces <1".	Fill									
			2	SANDY CLAY, very strong odor, light green in color, mottled green, trace coarse sand, 2.5YR 4/2, black staining throughout, medium moisture.	CLS			15000						
			4					15000						
	60 47		6					15000						
				SANDY SILT, wet, very strong odor, fine sand, 35% sand.	MLS									
			8					15000						
				SAND, well graded medium sand, very odorous, subangular, wet.	SW									
			10					14879						

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Ashley Kowalewski	tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-28

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 36			TOPSOIL, dark brown, organics, no odor.	Topsoil									
			2	FILL, coarse sand 40%, gravel 50%, silt 10%, no odor, dry.	FILL			10.7						
			4	SAND, poorly sorted, very mild odor, stained black in areas, 10YR 2/1, moist.	SP			15000						
	60 34		6					15000						
			8	SANDY SILT, very fine grained sands 35%, 10YR 5/4, very strong odor, wet.	MLS			15000						
			10					372.4						

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Ashley Kovalewsk	tetra tech	Tel: Fax:

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-29

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 50			TOPSOIL, dark brown, organics, no odor.	Topsoil									
			2	FILL, brick orange pieces, gravel, cinder pieces, no odor, dry.	Fill			197.7						
			4	SANDY CLAY, 10% fine sand, medium moisture, low to medium plasticity, black staining throughout, 10YR 2/1, strong odor.	CLS			378.4						
	60 47		6					1130						
			8	SANDY SILT, 10YR 2/1, black staining, strong odor, wet, fine sand 35%.	MLS			1688						
			10	SILTY CLAY, 10YR 5/1, mild odor, low plasticity, wet.	CL-ML			566.8						

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Ashley Kowalewski	tetra tech	Fax:

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-30

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 39			TOPSOIL, dark brown, organics, no odor.	Topsoil									
			2	SANDY GRAVEL, moist, no odor, some staining, gravel <1.75".	GPS			144.3						
			4					12.3						
	60 44			SILTY SAND, 60% coarse sand, 30% silt, 10% gravel, dark brown to black, 10YR 2/1, very wet towards bottom of section, mild odor.	SM									
			6		CL-ML			30.8						
				SILTY CLAY, dark brown 10YR 2/1, strong odor, wet, low plasticity, 25% silt.	GPS									
			8					1306						
				SANDY GRAVEL, poorly graded, strong odor, wet.	CL-ML									
			10	SILTY CLAY, low plasticity, strong odor, 10YR 6/1, wet.				1739						

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-31

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/10/2017	4/10/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 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
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 33			TOPSOIL, dark brown, organics, no odor.	Topsoil									
			2	FILL, building foundation, no odor, dry.	Fill			7.3						
			4	SANDY CLAY, 10YR 4/4, mild odor, black staining, coarse sand 20%, wet, low plasticity.	CLS			254.2						
	60 44		6					35.2						
			8	CLAY, tight, 10YR 5/1, stained black in spots, medium to high plasticity, wet.	CL-CH			17.2						
			10					19.2						

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Signature	Firm	Tel:
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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-32

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dustin Harvey Wisconsin Soil Sampling	4/24/2017	4/24/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VZ514		MW-5	Feet MSL	Feet MSL	6.3 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 32			TOPSOIL. Dark brown topsoil with grass and roots. Moist, no odor.	Topsoil									
			1	CLAY FILL. Dark gray clay with few fine grained sand. Moderate plasticity, moist, no odor.	Fill Fill									
			2		CL-CH			0.3						
			3	FILL. Reddish gray, well graded sand fill, moist, no odor.	SW									
			4	CLAY. Brown clay, moist, dense, no odor.				2.1						
	60 45		5	SAND. Dark brown, well graded sand (fine sand to fine grained gravel, mostly fine grained sand), moist, no odor.	SW									
			6	SAND. Tan, well graded sand (fine sand to fine grained gravel, mostly fine grained sand), moist to wet, wet at ~4.5', no odor				0.1						
			7		SP									
			8	SAND. Dark gray (stained), poorly graded fine to medium grained gravel, very few fines, wet, petroleum odor.	CLS SP			730.7						
			9	SANDY CLAY. Dark gray (stained), sandy clay, low to moderate plasticity, wet, strong petroleum odor.	SW CL-ML									
	60 23		10					1394						
			11	SAND. Dark gray (stained) poorly graded fine grained sand with trace fines. wet, strong petroleum odor.										
			12	SAND. Dark gray (stained) well graded fine to coarse grained sand, wet, strong petroleum odor.	ML			52.2						
			13											
			14	SILTY CLAY. Brownish gray silty clay, little to no plasticity, moist to wet, weak petroleum odor.				38.8						
			15	SILT. Brownish gray silt with few clay				4.5						

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Signature	Firm	Tel:
Ashley A. Weimer	tetra tech	Fax:

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SOIL BORING LOG INFORMATION SUPPLEMENT

Form 4400-122A

Boring Number SB-32 Use only as an attachment to Form 4400-122.

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				and trace fine grained sand, wet, no odor.										

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-33

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-33	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 33			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL FILL									
			2	CLAY FILL. Brownish gray clay fill with trace silt, dense, moderate to high plasticity, dry, no odor.	FILL			4.5						
	48 21		4	FILL. Reddish brown, fine grained sand with gravel foundry fill. Dry. No odor.				8.1						
			6	FILL. Brown, poorly graded fine grained sand with fine to coarse grained gravel fill. Dry to damp. No odor.	FILL			7.9						
	48 36		8	FILL. Reddish brown, fine grained sand with gravel fill, pices of woodchips. Damp to wet. Wet at 6.5 ft bgs. No odor.	CL-ML			12.8						
			10	SILTY CLAY. Black silty clay. Moist to wet. Organic odor.	CL-ML			10.4						
				SILTY CLAY. Bluish gray mottled with brown and gray silty clay. Moist to wet. No odor.	SP									
	36 32		12	SAND. Grayish brown, poorly graded very fine grained to fine grained sand. Wet. No odor.	SP			11.2						
			14	SAND. Brown, poorly graded very fine grained to fine grained sand, with 5-10% silt. Wet. No odor.				7.6						

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

Signature Ashley A. Wagner Firm Tetra tech Tel: Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-34

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-34	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 42			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL FILL FILL									
			2	CLAY FILL. Brownish gray clay fill with trace silt, dense, moderate to high plasticity, dry, no odor.	FILL			7.1						
				FILL. Off-white, gravel fill. Dry. no odor.										
	48 37		4	CLAY FILL. Brown to black silty clay with sand and gravel fill. Moist. No odor.	FILL			8.7						
			6	FILL. Black foundry silt with little clay fill. Dry. No odor.				8.0						
	48 19		8	SILTY CLAY. Grayish brown mottled with black and orange silty clay. Little to moderate plasticity. Moist. No odor.	CL-ML			7.7						
			10	SILT AND CLAY. Grayish brown mottled with black and orange silt and clay (varying amounts of each, less brown color with depth). Little to moderate plasticity. Wet at 9 ft bgs. No odor.	CL-ML			9.2						
	36 17		12					7.8						
			14	SAND WITH GRAVEL. Grayish brown sand with gravel. Dry to moist. No odor.	SPG									
				SILTY CLAY. Grayish brown silty clay. Little to moderate plasticity. Moist. No odor.	CL-ML			6.7						

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

Signature	Firm	Tel:
Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-35

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-35	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 45			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL FILL FILL									
			2	CLAY FILL. Brown clay fill with trace silt and few fine grained sand, dense, moderate to high plasticity, dry, no odor.	FILL			3.4						
	48 35		4	FILL. Brown sand and gravel fill. Dry. No odor.	FILL			4.7						
			6	FILL. Grayish brown (1.1-2.65 ft bgs) to black (2.65-4 ft bgs) silty clay fill. Pieces of glass at 3.2 ft bgs. Dry. No odor.	MLG			4.0						
	48 32		8	SILT WITH CLAY. Black silt with clay, sand and gravel fill. Pieces of glass throughout. Moist. No odor.	CL-ML			4.8						
			10	SILT WITH GRAVEL. Black silt with fine to medium grained gravel (possible fill). Moist. No odor.	CL-ML			5.0						
				SILT WITH CLAY. Black silt with clay. Dense. Dry to moist. No odor.	CL-ML									
	36 41		12	SILTY CLAY. Bluish gray mottled brown silty clay. Little to moderate plasticity. Moist. No odor.	MLS			5.2						
			14	SILT AND CLAY. Bluish gray mottled brown silt and clay (varying amounts of each). 10.65-11.4 ft bgs 10-15% fine grained sand. Moist to wet (water table at appx 9.5 ft bgs). No odor.	ML			2.4						
				SANDY SILT. Bluish gray mottled brown sandy silt. Moist to wet. No odor.										
				SILT. Grayish brown silt with appx. 10-15% clay. Wet. No odor.										

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Signature	Firm	Tel:
Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-36

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-36	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 28			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL									
				ASPHALT. Black broken pieces of asphalt.	ASPHALT									
			2	FILL. Off-white sand and gravel fill. Dry. No odor.	FILL			5.4						
	48 16		4	FILL. Black and red sand with trace gravel foundry fill. Dry. No odor.	FILL			8.6						
			6	FILL. Black and red sandy clay foundry fill. Dry. No odor.	FILL			8.0						
	48 33		8	FILL. Sand and gravel fill. Magenta (4-5 ft bgs), brown (5-7.25 ft bgs), and light brown and off-white (7.25-8 ft bgs). Dry to moist. No odor.	CL-CH			11.7						
			10	CLAY. Bluish gray mottled brown clay. Wet. No odor.	CL-ML			8.7						
				CLAYEY SILT. Grayish brown clayey silt. Wet. No odor.	CL-ML									
	36 38		12	CLAYEY SILT WITH SAND. Grayish brown clayey silt with fine to coarse grained sand. Wet. No odor.	CL-ML			7.8						
			14	CLAY AND SILT. Grayish brown clay and silt (varying amounts of each). Wet. No odor.				5.3						
				SILTY CLAY. Grayish brown silty clay. Very dense. Moist to wet. No odor.										

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Signature	Firm	Tel:
Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-37

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-37	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 37			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL									
			2	CLAY FILL. Brown clay fill with trace silt, dense, moderate to high plasticity, dry, no odor.	FILL FILL FILL			10.7						
	48 35		4	FILL. Very dark gray sand and gravel foundry fill. Dry. No odor.	FILL FILL FILL			9.8						
			6	FILL. Brown mottled gray clay fill with 10% fine grained sand. Dry. No odor.	FILL CH									
				FILL. Black and orange sand and gravel foundry fill. Dry. No odor.	CH			11.3						
	48 48		8	FILL. Reddish brown sandy clay fill. Little to no plasticity. Moist. No odor.				9.5						
			10	FILL. Black sand and gravel foundry fill. Wet. No odor. CLAY. Gray mottled brown and black clay. Moderate to high plasticity. Moist to wet. No odor.	CH			7.9						
	36 32		12	CLAY. Gray mottled brown clay. Moderate to high plasticity. Moist to wet. No odor.	CLS SW			8.5						
			14	CLAY. Bluish gray mottled brown clay with trace silt. Moderate to high plasticity. Wet. No odor.	SP-SC CL-ML			5.7						
				SANDY CLAY. Grayish brown sandy clay. Wet. No odor.										
				SAND. Grayish brown well graded sand (coarse grained sand to silt/clay). Wet. No odor.										
				CLAYEY SAND. Grayish brown clayey										

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

Signature	Firm	Tel:
Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number SB-37 Use only as an attachment to Form 4400-122.

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				fine grained sand. Wet. No odor.										
				SILTY CLAY. Grayish brown silty clay. Little to moderate plasticity. Wet. No odor.										

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-38

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-38	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 39			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL FILL									
			2	CLAY FILL. Brown clay fill with trace silt and few fine grained sand, dense, moderate to high plasticity, dry, no odor.	FILL			11.3						
	48 24		4	FILL. Very dark brown to black silty sand with trace fine grained gravel foundry fill. Moist to damp. No odor.				10.9						
			6	CLAY WITH SILT. Black mottled orange clay with silt. Moist. No odor.	CL-ML			3.9						
	48 35		8	SILTY CLAY. Bluish gray mottled brown with some black staining silty clay. Moist. Weak petroleum odor.	CL-ML			36.7						
			10	SILTY CLAY. Bluish gray mottled brown with some black staining silty clay (staining ends at 11.2 ft bgs). Wet. Weak petroleum odor.	CL-ML			108.7						
	36 23		12	SILT AND CLAY. Grayish brown mottled bluish gray silt and clay (varying amounts of each). Moist to wet. NO odor.	CL-ML			13.0						
			14					9.8						

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-39

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-39	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 39			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL									
			2	FILL. Dark brown to black silt with clay foundry fill. Dry. No odor.	FILL			3.5						
	48 17		4	FILL. Brown to dark brown (black 3.4-3.5 ft bgs) silty sand with trace fine grained gravel foundry fill. Wet at 4 ft bgs. No odor.	FILL			20.4						
			6					336.9						
	48 35		8	FILL. Black stained fine grained sand fill. Wet. Petroleum odor.	FILL CL-ML			23.8						
			10	SILTY CLAY. Gray silty clay. Little to moderate plasticity. Wet. Strong petroleum odor.	CL-ML			74.4						
	36 34		12	SILT WITH CLAY. Grayish brown silty with appx 5-15% clay. Wet. No odor.	SM			17.6						
			14	SILTY SAND. Brown silty sand. Wet/saturated. No odor.	CL-ML									
				SILT AND CLAY. Grayish brown to brown silt and clay (varying amounts of each). Moist to wet. No odor.				11.4						

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Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-40

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-40	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 41			TOPSOIL. Brown, with grass and roots trace fine grained gravel to coarse grained sand. Dry. No odor.	TOPSOIL FILL									
			2	CLAY FILL. Dark brown clay fill with trace silt, 10% fine grained gravel to sand, dense, moderate to high plasticity, dry, no odor.	FILL FILL			7.7						
	48 34		4	FILL. Pale brown sand and gravel fill. Dry. No odor.	FILL			50.7						
			6	FILL. Dark reddish brown to black sand and gravel foundry fill. Moist to wet (wet at 3.9 ft bgs). No odor.				169.2						
	48 17		8	FILL. Black sand and gravel fill with a silty clay coating grains. Wet. Strong petroleum odor.	FILL			277.2						
			10	FILL. Black to very dark brown sand and gravel fill. Moist to wet (wet at 8-10.6 ft bgs). Petroleum odor.				247.6						
	36 36		12	SILT AND CLAY. Brown silt and clay (varying amounts of each). Wet. Petroleum odor. Had refusal at 11 ft bgs, moved over to get to depth.	CL-ML			203.9						
			14	CLAY. Grayish brown clay with trace silt. Dense. Moist to wet. No odor.	CL-CH			904.9						

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-41

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-41	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 20			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL									
			2	CLAY FILL. Brownish gray clay fill with trace silt, dense, moderate to high plasticity, dry, no odor.	FILL			5.6						
	48 6		4	FILL. Reddish brown sand and gravel foundry fill. Dry to moist. No odor.	FILL			8.5						
				FILL. Black fine grained sand and gravel foundry fill. Dry to moist. No odor.	FILL									
			6	SILTY CLAY. Pale brown silty clay. Wet. No odor.	CL-ML			11.1						
	48 6		8	SILT. Gray silt. Wet. No odor.	ML			14.9						
			10	SILTY CLAY. Grayish brown silty clay. Dense. Wet. No odor.	CL-ML									
	36 7		12	SAND. Grayish brown poorly graded very fine grained sand. Wet/saturated. No odor.	SP			8.6						
			14	SAND WITH SILT. Grayish brown very fine grained to fine grained sand with silt and little clay. Wet. No odor.	SM			1.7						

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

Signature	Firm	Tel:
Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-42

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-42	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 31			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL									
			2	CLAY FILL. Brownish gray clay fill with trace silt, dense, moderate to high plasticity, dry, no odor.	FILL			6.8						
	48 30		4	FILL. Reddish brown and black sand with 10-15% gravel with clay lenses at 1.9-2.2 ft bgs and 3.2-3.35 ft bgs. Dry to moist. No odor.	FILL CL-ML CL-ML			8.2						
			6	SILTY CLAY. Brown mottled black silty clay. Moist. No odor.	CL-ML			9.8						
	48 36		8	SILTY AND CLAY. Black silt and clay (varying amounts of each). Little to no plasticity. Moist. No odor.	CL-ML			67.2						
			10	SILT WITH CLAY. Grayish brown silt with clay. Moist to wet (water table at appx 6 ft bgs). No odor.	CL-ML			12.7						
	36 48		12	SILTY AND CLAY. Grayish brown silt and clay (varying amounts of each). Little to no plasticity. Moist to wet. No odor.	CL-ML			9.7						
			14	SILTY CLAY. Brown silty clay. Very dense. Dry to moist. No odor.	CL-ML									
				SILTY CLAY. Grayish brown silty clay. Moist. No odor.				3.4						

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

Signature	Firm	Tel:
Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-43

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-43	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 31			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL FILL									
			2	CLAY FILL. Brownish gray clay fill with trace silt, dense, moderate to high plasticity, dry, no odor.	FILL			9.9						
	48 10		4	FILL. Reddish brown, orange and black sand and gravel foundry fill with some clay lenses. Dry to moist 1.4-4 ft bgs, wet at 4 ft bgs. No odor.				19.4						
			6	SILTY CLAY. Bluish gray mottled brown silty clay. Wet. No odor.	CL-ML									
	48 38		8					197.6						
			10	SILTY SAND. Grayish brown silty sand. Poorly graded very fine grained sand. Caly lens 11.35-11.7 ft bgs. Saturated 8.45-10.75, moist to wet 10.75-12 ft bgs. No odor.	SM			15.9						
	36 48		12	SAND. Grayish brown poorly graded fine to very fine grained sand. Saturated. No odor.	SP			12.2						
			14	SILTY SAND. Grayish brown silty sand. Poorly graded fine to very fine grained sand. Saturated. No odor.	SM CL-ML			7.5						
				SILTY CLAY. Grayish brown silty clay. Moist to wet. No odor.										

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

Signature	Firm	Tel:
Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-44

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-44	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 32			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL FILL									
			2	CLAY FILL. Brownish gray clay fill with trace silt, dense, moderate to high plasticity, dry, no odor.	FILL CL-ML			5.9						
	48 21		4	FILL. Red very fine grained sand to silt fill. Dry to moist. No odor.				9.3						
				SILTY CLAY. Brown silty clay with 10% gravel. Moist. No odor.	CL-ML									
			6	SILTY CLAY. Black silty clay with 10-15% sand and gravel. Wet. Weak odor.	CL-ML			19.0						
	48 33		8	SILTY CLAY. Greenish gray mottled brown silty clay. Moist to wet. No odor.	CLS			99.2						
			10	SILT WITH CLAY AND SAND. Bluish gray mottled brown silt with clay and very fine to fine grained sand (varying amounts of sand and clay). Wet. No odor.	SP			14.1						
	36 35		12	SAND. Brown and bluish gray poorly graded very fine to fine grained sand with 5-10% silt. Wet. No odor.	SP ML			11.7						
			14	SAND. Brown poorly graded fine grained sand. Wet. No odor.	CL-ML									
				SILT. Brown mottled brownish gray silt. Wet. No odor				7.5						
				SILTY CLAY. Grayish brown silty clay. Little to moderate plasticity. Moist to wet. No odor.										

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

Signature	Firm	Tel:
Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-45

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-45	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 41			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL									
			2	CLAY FILL. Brownish gray clay fill with trace silt, dense, moderate to high plasticity, dry, no odor.	FILL			8.4						
	48 16		4	FILL. Dark reddish brown to black clayey sand with gravel fill. Moist. No odor.	FILL			839.6						
			6	FILL. Black clayey sand with gravel fill. Moist. No odor.	FILL			995.1						
	48 11		8	GRAVELLY SAND. Black gravelly sand (possible fill). Moist to wet (wet at 6 ft bgs). No odor	SWG			197.6						
			10	GRAVELLY SAND. Black gravelly sand (possible fill, very coarse). Wet. Petroleum odor.	GWS									
	36 3		12	SILTY CLAY. Greenish gray with black staining silty clay. Wet. Weak odor.	CL-ML			316.9						
			14	SAND WITH SILT. Grayish brown poorly graded very fine grained sand with silt. Wet. No odor.	SP-SM			25.2						

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Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-46

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-46	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 36			TOPSOIL. Brown, with grass and roots. Dry. No odor.	TOPSOIL									
			2	CLAY FILL. Brownish gray clay fill with trace silt, dense, moderate to high plasticity, dry, no odor.	FILL			8.1						
	48 15		4 6	FILL. Black silty sand with some clay lenses and trace coarse grained gravel foundry fill. Yellowish brown brick at 6.1-6.65 ft bgs. Dry to moist, wet at 8 ft bgs. No odor.	FILL			7.4						
	48 10		8 10	FILL. Dark brown to black sand and gravel fill. Wet. No odor. Kept getting refusal at 9 ft bgs, moved over to get to depth.	FILL			9.8 6.0						
	36 33		12 14	SILT AND CLAY. Bluish gray mottled with grayish brown silt and clay (varying amounts of each). Wet. No odor.	CL-ML			7.4						
				SILT. Grayish brown silt. Wet. No odor.	ML			4.7						

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Signature	Firm	Tel:
Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Teledyne West Allis	NA	SB-47

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
David Kinzer Direct Push	7/19/2017	7/19/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		SB-47	Feet MSL	Feet MSL	2.0 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
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	West Allis

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/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	48 26			ASPHALT. Black broken asphalt.	ASPHALT									
				FILL. Yellow brown sand and gravel fill. Dry to moist. No odor.	FILL									
			2	FILL. Black and orange sand and gravel fill. Moist to wet (wet at 4 ft bgs). No odor.	FILL			3.5						
	48 11		4					7.0						
			6					19.1						
	48 41		8	SILTY CLAY. Bluish gray mottled brown silty clay. Wet. Weak odor.	CL-ML			12.7						
				SILTY CLAY. Gray silty clay with fine grained sand. Wet. No odor.	CL-ML									
			10	SILTY SAND. Bluish gray mottled brown silty sand (poorly graded fine grained sand). Wet. No odor.	SM CL-ML			8.6						
	36 48		12	SILTY CLAY. Brown to grayish brown silty clay. Little to no plasticity. Dense. Moist to wet. No odor.	ML CL-ML			11.0						
			14	SILT. Brown silt with trace clay. Wet. No odor.										
				SILT AND CLAY. Brown to grayish brown silt and clay (varying amounts of each). Little to moderate plasticity. Moist to wet. No odor.				8.0						

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

Signature	Firm	Tel:
Ashley A. Wagner	Tetra tech	Fax:

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State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Teledyne West Allis	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: MW-1
Facility License, Permit or Monitoring No.: NA	Local Grid Origin ☒ (estimated: ☐) or Well Location ☐ Lat. ___° ___' ___" Long. ___° ___' ___" or	Wis. Unique Well No.: VZ510 / DNR Well Number:
Facility ID:	St. Plane ____ ft. N, ____ ft. E. S / C / N	Date Well Installed: 04/12/2017
Type of Well: Well Code 71/dw	Section Location of Waste/Source: ___ 1/4 of ___ 1/4 of Sec. ___, T. ___ N, R. ___ ☐ E ☐ W	Well Installed By: (Person's Name and Firm): Dustin Harvey, Wisconsin Soil Sampling
Distance from Waste/Source ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom ____ ft. MSL or 0.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP ☒
SM ☐ SC ☐ ML ☒ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☒ Yes ☐ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
____ Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):

____

E. Bentonite seal, top ____ ft. MSL or 0.5 ft.

F. Fine sand, top ____ ft. MSL or 4.0 ft.

G. Filter pack, top ____ ft. MSL or 5.0 ft.

H. Screen joint, top ____ ft. MSL or 5.0 ft.

I. Well bottom ____ ft. MSL or 15.0 ft.

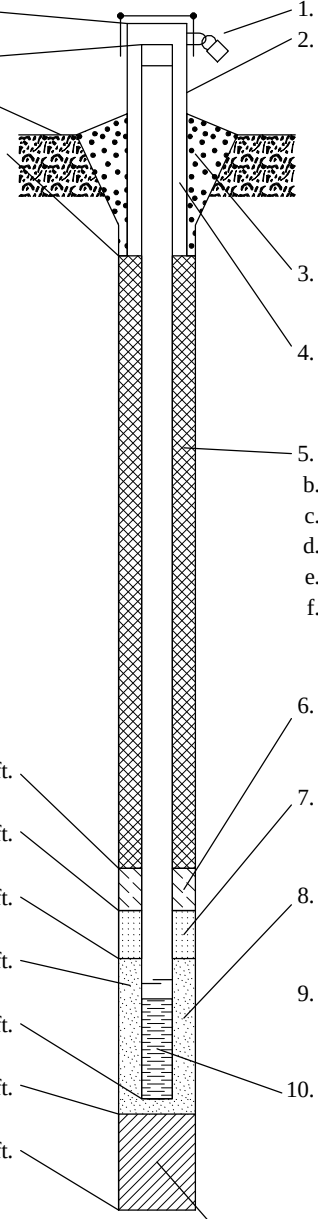
J. Filter pack, bottom ____ ft. MSL or 15.0 ft.

K. Borehole, bottom ____ ft. MSL or 15.0 ft.

L. Borehole, diameter 6.3 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.07 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8.0 in.
b. Length: 1.0 ft.
c. Material: Steel ☒ 0 4
____ Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____
3. Surface seal: Bentonite ☐ 3 0
Concrete ☒ 0 1
____ Other ☐
4. Material between well casing and protective pipe:
Bentonite ☒ 3 0
____ Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐ 3 1
d. ____ % Bentonite . . . Bentonite-cement grout ☐ 5 0
e. 1.4 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1
Tremie pumped ☐ 0 2
Gravity ☒ 0 8
6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 3 2
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. RW Sidley
b. Volume added 0.75 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added 3 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3
Flush threaded PVC schedule 80 ☐ 2 4
____ Other ☐
10. Screen material: PVC
a. Screen Type: Factory cut ☒ 1 1
Continuous slot ☐ 0 1
____ Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): None ☒ 1 4
____ Other ☐

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

Signature: Ashley Kowalewski	Firm: tetra tech	Tel: Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Teledyne West Allis	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: MW-2
Facility License, Permit or Monitoring No.: NA	Local Grid Origin ☒ (estimated: ☐) or Well Location ☐ Lat. ___° ___' ___" Long. ___° ___' ___" or	Wis. Unique Well No.: VZ511 / DNR Well Number:
Facility ID:	St. Plane ____ ft. N, ____ ft. E. S / C / N	Date Well Installed: 04/12/2017
Type of Well: Well Code 71/dw	Section Location of Waste/Source: ___ 1/4 of ___ 1/4 of Sec. ___, T. ___ N, R. ___ ☐ E ☐ W	Well Installed By: (Person's Name and Firm): Dustin Harvey, Wisconsin Soil Sampling
Distance from Waste/Source ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom ____ ft. MSL or 0.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP ☒
SM ☐ SC ☐ ML ☒ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☒ Yes ☐ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
____ Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):
____

E. Bentonite seal, top ____ ft. MSL or 0.5 ft.

F. Fine sand, top ____ ft. MSL or 4.0 ft.

G. Filter pack, top ____ ft. MSL or 5.0 ft.

H. Screen joint, top ____ ft. MSL or 5.0 ft.

I. Well bottom ____ ft. MSL or 15.0 ft.

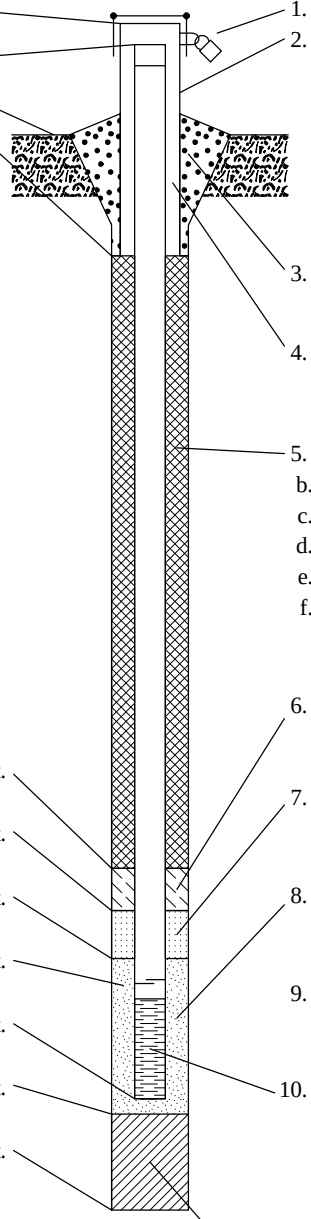
J. Filter pack, bottom ____ ft. MSL or 15.0 ft.

K. Borehole, bottom ____ ft. MSL or 15.0 ft.

L. Borehole, diameter 6.3 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.07 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8.0 in.
b. Length: 1.0 ft.
c. Material: Steel ☒ 0 4
____ Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____
3. Surface seal: Bentonite ☐ 3 0
Concrete ☒ 0 1
____ Other ☐
4. Material between well casing and protective pipe:
Bentonite ☒ 3 0
____ Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐ 3 1
d. ____ % Bentonite . . . Bentonite-cement grout ☐ 5 0
e. 1.4 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1
Tremie pumped ☐ 0 2
Gravity ☒ 0 8
6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 3 2
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. RW Sidley
b. Volume added 0.75 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added 3 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3
Flush threaded PVC schedule 80 ☐ 2 4
____ Other ☐
10. Screen material: PVC
a. Screen Type: Factory cut ☒ 1 1
Continuous slot ☐ 0 1
____ Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): None ☒ 1 4
____ Other ☐

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

Signature: Ashley Kowalewski	Firm: tetra tech	Tel: Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Teledyne West Allis	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: MW-3
Facility License, Permit or Monitoring No.: NA	Local Grid Origin ☒ (estimated: ☐) or Well Location ☐ Lat. ___° ___' ___" Long. ___° ___' ___" or	Wis. Unique Well No.: VZ512 / DNR Well Number:
Facility ID:	St. Plane ____ ft. N, ____ ft. E. S / C / N	Date Well Installed: 04/12/2017
Type of Well: Well Code 71/dw	Section Location of Waste/Source: ___ 1/4 of ___ 1/4 of Sec. ___, T. ___ N, R. ___ ☐ E ☐ W	Well Installed By: (Person's Name and Firm): Dustin Harvey, Wisconsin Soil Sampling
Distance from Waste/Source ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom ____ ft. MSL or 0.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP ☒
SM ☐ SC ☐ ML ☒ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☒ Yes ☐ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
____ Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):

____

E. Bentonite seal, top ____ ft. MSL or 0.5 ft.

F. Fine sand, top ____ ft. MSL or 4.0 ft.

G. Filter pack, top ____ ft. MSL or 5.0 ft.

H. Screen joint, top ____ ft. MSL or 5.0 ft.

I. Well bottom ____ ft. MSL or 15.0 ft.

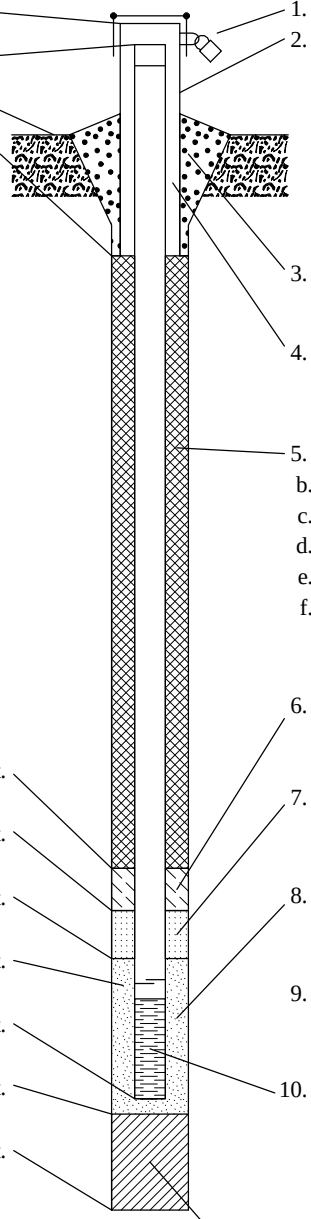
J. Filter pack, bottom ____ ft. MSL or 15.0 ft.

K. Borehole, bottom ____ ft. MSL or 15.0 ft.

L. Borehole, diameter 6.3 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.07 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8.0 in.
b. Length: 1.0 ft.
c. Material: Steel ☒ 0 4
____ Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____
3. Surface seal: Bentonite ☐ 3 0
Concrete ☒ 0 1
____ Other ☐
4. Material between well casing and protective pipe:
Bentonite ☒ 3 0
____ Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐ 3 1
d. ____ % Bentonite . . . Bentonite-cement grout ☐ 5 0
e. 1.4 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1
Tremie pumped ☐ 0 2
Gravity ☒ 0 8
6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 3 2
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. RW Sidley
b. Volume added 0.75 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added 3 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3
Flush threaded PVC schedule 80 ☐ 2 4
____ Other ☐
10. Screen material: PVC
a. Screen Type: Factory cut ☒ 1 1
Continuous slot ☐ 0 1
____ Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): None ☒ 1 4
____ Other ☐

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

Signature: Ashley Kowalewski	Firm: tetra tech	Tel: Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Teledyne West Allis	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: MW-4
Facility License, Permit or Monitoring No.: NA	Local Grid Origin ☒ (estimated: ☐) or Well Location ☐ Lat. ___° ___' ___" Long. ___° ___' ___" or	Wis. Unique Well No.: VZ513 / DNR Well Number:
Facility ID:	St. Plane ____ ft. N, ____ ft. E. S / C / N	Date Well Installed: 04/12/2017
Type of Well: Well Code 71/dw	Section Location of Waste/Source: ___ 1/4 of ___ 1/4 of Sec. ___, T. ___ N, R. ___ ☐ E ☐ W	Well Installed By: (Person's Name and Firm): Dustin Harvey, Wisconsin Soil Sampling
Distance from Waste/Source ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom ____ ft. MSL or 0.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP ☒
SM ☐ SC ☐ ML ☒ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☒ Yes ☐ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
____ Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):

____

E. Bentonite seal, top ____ ft. MSL or 0.5 ft.

F. Fine sand, top ____ ft. MSL or 4.0 ft.

G. Filter pack, top ____ ft. MSL or 5.0 ft.

H. Screen joint, top ____ ft. MSL or 5.0 ft.

I. Well bottom ____ ft. MSL or 15.0 ft.

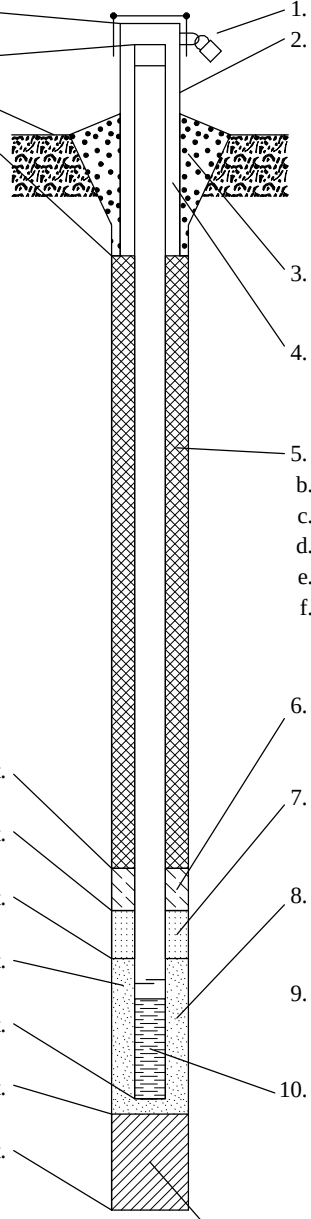
J. Filter pack, bottom ____ ft. MSL or 15.0 ft.

K. Borehole, bottom ____ ft. MSL or 15.0 ft.

L. Borehole, diameter 6.3 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.07 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8.0 in.
b. Length: 1.0 ft.
c. Material: Steel ☒ 0 4
____ Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____
3. Surface seal: Bentonite ☐ 3 0
Concrete ☒ 0 1
____ Other ☐
4. Material between well casing and protective pipe:
Bentonite ☒ 3 0
____ Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐ 3 1
d. ____ % Bentonite . . . Bentonite-cement grout ☐ 5 0
e. 1.4 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1
Tremie pumped ☐ 0 2
Gravity ☒ 0 8
6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 3 2
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. RW Sidley
b. Volume added 0.75 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added 3 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3
Flush threaded PVC schedule 80 ☐ 2 4
____ Other ☐
10. Screen material: PVC
a. Screen Type: Factory cut ☒ 1 1
Continuous slot ☐ 0 1
____ Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): None ☒ 1 4
____ Other ☐

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

Signature: Ashley Kowalewski	Firm: tetra tech	Tel: Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Teledyne West Allis	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: MW-5
Facility License, Permit or Monitoring No.: NA	Local Grid Origin ☒ (estimated: ☐) or Well Location ☐ Lat. ___° ___' ___" Long. ___° ___' ___" or	Wis. Unique Well No.: VZ514 / DNR Well Number:
Facility ID:	St. Plane ____ ft. N, ____ ft. E. S / C / N	Date Well Installed: 04/24/2017
Type of Well: Well Code 71/dw	Section Location of Waste/Source: ___ 1/4 of ___ 1/4 of Sec. ___, T. ___ N, R. ___ ☐ E ☐ W	Well Installed By: (Person's Name and Firm): Dustin Harvey, Wisconsin Soil Sampling
Distance from Waste/Source ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom ____ ft. MSL or 0.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP ☒
SM ☐ SC ☐ ML ☒ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☒ Yes ☐ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
____ Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):
____

E. Bentonite seal, top ____ ft. MSL or 0.5 ft.

F. Fine sand, top ____ ft. MSL or 4.0 ft.

G. Filter pack, top ____ ft. MSL or 5.0 ft.

H. Screen joint, top ____ ft. MSL or 5.0 ft.

I. Well bottom ____ ft. MSL or 15.0 ft.

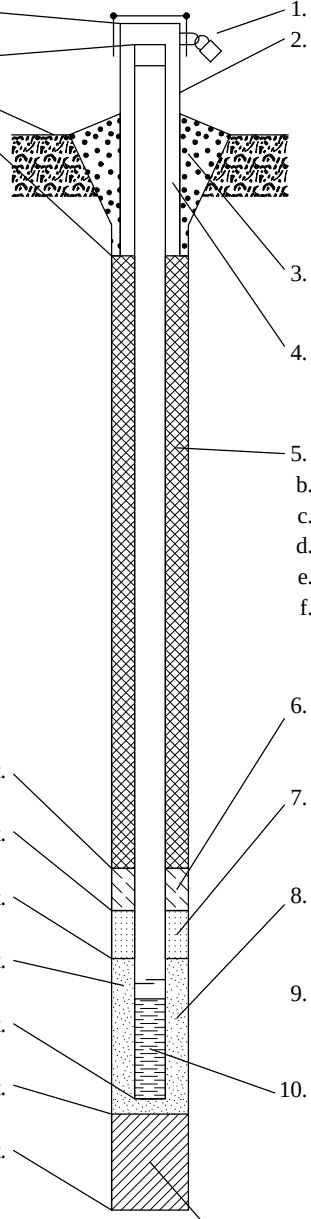
J. Filter pack, bottom ____ ft. MSL or 15.0 ft.

K. Borehole, bottom ____ ft. MSL or 15.0 ft.

L. Borehole, diameter 6.3 in.

M. O.D. well casing 2.38 in.

N. I.D. well casing 2.07 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8.0 in.
b. Length: 1.0 ft.
c. Material: Steel ☒ 0 4
____ Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____
3. Surface seal: Bentonite ☐ 3 0
Concrete ☒ 0 1
____ Other ☐
4. Material between well casing and protective pipe:
Bentonite ☒ 3 0
____ Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐ 3 1
d. ____ % Bentonite . . . Bentonite-cement grout ☐ 5 0
e. 1.4 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1
Tremie pumped ☐ 0 2
Gravity ☒ 0 8
6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 3 2
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. RW Sidley
b. Volume added 0.75 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added 3 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3
Flush threaded PVC schedule 80 ☐ 2 4
____ Other ☐
10. Screen material: PVC
a. Screen Type: Factory cut ☒ 1 1
Continuous slot ☐ 0 1
____ Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): None ☒ 1 4
____ Other ☐

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

Signature: Ashley A. Weimer	Firm: tetra tech	Tel: Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-5 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/24/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/24/17

Signature of Person Doing Work | Date Signed: 4/24/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY

Date Received | **Noted By**

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-6 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/12/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/12/17

Signature of Person Doing Work | Date Signed: 4/12/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY

Date Received | **Noted By**

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-7 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/12/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/12/17

Signature of Person Doing Work | Date Signed: 4/12/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-8 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/12/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/12/17

Signature of Person Doing Work | Date Signed: 4/12/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-9 _____ Gov't Lot (if applicable)

____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W
Grid Location

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/11/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/11/17

Signature of Person Doing Work | Date Signed: 4/11/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-10 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-11 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
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☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
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☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-12 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-13 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY

Date Received | **Noted By**

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-14 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-15 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-16 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-17 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/24/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/24/17

Signature of Person Doing Work | Date Signed: 4/24/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-18 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/24/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/24/17

Signature of Person Doing Work | Date Signed: 4/24/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-19 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/24/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/24/17

Signature of Person Doing Work | Date Signed: 4/24/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-20 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/24/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/24/17

Signature of Person Doing Work | Date Signed: 4/24/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY

Date Received | **Noted By**

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-21 _____ Gov't Lot (if applicable)

____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W
Grid Location

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-22 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/11/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/11/17

Signature of Person Doing Work | Date Signed: 4/11/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-23 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/11/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/11/17

Signature of Person Doing Work | Date Signed: 4/11/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-24 _____ Gov't Lot (if applicable)

____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W
Grid Location

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/11/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/11/17

Signature of Person Doing Work | Date Signed: 4/11/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY

Date Received | **Noted By**

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-25 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY
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Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-26 _____ Gov't Lot (if applicable)

____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W
Grid Location

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-27 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-28 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-29 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-30 _____ Gov't Lot (if applicable)

____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W
Grid Location

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY

Date Received | **Noted By**

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-31 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/10/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 10.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 10.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10.0	0.2	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Wisconsin Soil Sampling | Date of Abandonment: 4/10/17

Signature of Person Doing Work | Date Signed: 4/10/17

Street or Route: 137 N. Midway Ave | Telephone Number: (920) 723-9908

City, State, Zip Code: Jefferson, WI 53549

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-33 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-34 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-35 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-36 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-37 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-38 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-39 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-40 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

FOR DNR OR COUNTY USE ONLY
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Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-41 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

FOR DNR OR COUNTY USE ONLY
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State of Wisconsin
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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-42 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-43 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-44 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

FOR DNR OR COUNTY USE ONLY
Date Received | Noted By
Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-45 _____ Gov't Lot (if applicable)

____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W
Grid Location

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

Lat ____° ____' ____" Long ____° ____' ____" or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

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Comments

State of Wisconsin
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WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-46 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

	Yes	No	Not Applicable
Pump & Piping Removed?	☐	☐	☒
Liner(s) Removed?	☐	☐	☒
Screen Removed?	☐	☐	☒
Casing Left in Place?	☐	☐	

	Yes	No
Was Casing Cut Off Below Surface?	☐	☐
Did Sealing Material Rise to Surface?	☒	☐
Did Material Settle After 24 Hours?	☐	☒
If Yes, Was Hole Retopped?	☐	☒

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No. | DNR Well ID No. | County: Milwaukee

Common Well Name: SB-47 _____ Gov't Lot (if applicable)

Grid Location: ____ 1/4 of ____ 1/4 of Sec. ____ ; T. ____ N; R. ____ ☐ E ☐ W

____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Local Grid Origin ☒ (estimated: ☐) or Well Location ☐

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

State Plane ____ ft. N. ____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment: Used only for soil sampling | WI Unique Well No. of Replacement Well

(2) FACILITY /OWNER INFORMATION

Facility Name: Teledyne West Allis

Facility ID | License/Permit/Monitoring No.: NA

Street Address of Well: 1910 S 53rd St.

City, Village, or Town: West Allis

Present Well Owner: 5209 Burnham, LLC | Original Owner: Teledyne

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 7/19/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): 15.0 Casing Diameter (in.) _____
Casing Depth (ft.) _____

Lower Drillhole Diameter (in.): 2.0

Was Well Annular Space Grouted? ☒ Yes ☐ No ☐ Unknown

If Yes, To What Depth? 15.0 Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	
Was Casing Cut Off Below Surface?	☐ Yes	☐ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15.0	0.3	

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: Direct Push | Date of Abandonment: 7/19/17

Signature of Person Doing Work | Date Signed: 7/19/17

Street or Route: 4N969 Old LaFox Road, Unit E | Telephone Number: 630-377-7766

City, State, Zip Code: St. Charles, IL 60175

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State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	County	Well Name
Teledyne West Allis	Milwaukee	MW-1

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
NA	41	VZ510	

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed, and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
other _____	☐	

3. Time spent developing well 35 min.

4. Depth of well (from top of well casing) 15.06 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing 8.0 gal.

7. Volume of water removed from well 15.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	3.10 ft.	10.97 ft.
Date	b.	4/27/2017	4/27/2017
Time	c.	11:05 ☒ a.m. ☐ p.m.	11:40 ☒ a.m. ☐ p.m.
12. Sediment in well bottom		0.2 inches	0.0 inches
13. Water clarity		Clear ☐ 1 0 Turbid ☒ 1 5 (Describe) Brown with a petroleum odor sheen on water	Clear ☐ 2 0 Turbid ☒ 2 5 (Describe) Brown with a petroleum odor sheen on water

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm
Ashley Weimer
Tetra Tech

17. Additional comments on development:

Facility Address or Owner/Responsible Party Address

Name: _____

Firm: Teledyne

Street: 1910 S 53rd St.

City/State/Zip: West Allis, WI

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

Signature: Ashley A. Weimer

Print Name: Ashley Weimer

Firm: Tetra Tech

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	County	Well Name
Teledyne West Allis	Milwaukee	MW-2

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
NA	41	VZ511	

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed, and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
other _____	☐	

3. Time spent developing well 60 min.

4. Depth of well (from top of well casing) 13.4 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing 7.42 gal.

7. Volume of water removed from well 30.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	4.79 ft.	6.10 ft.
Date	b.	4/27/2017	4/27/2017
Time	c.	12:50 ☐ a.m. ☒ p.m.	04:08 ☐ a.m. ☒ p.m.
12. Sediment in well bottom		1.8 inches	0.8 inches
13. Water clarity		Clear ☐ 1 0 Turbid ☒ 1 5 (Describe) Brown Some odor	Clear ☐ 2 0 Turbid ☒ 2 5 (Describe) Brown Some odor

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm
Ashley Weimer
Tetra Tech

17. Additional comments on development:

Facility Address or Owner/Responsible Party Address

Name: _____

Firm: Teledyne

Street: 1910 S 53rd St.

City/State/Zip: West Allis, WI

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

Signature: Ashley A. Weimer

Print Name: Ashley Weimer

Firm: tetra tech

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	County	Well Name
Teledyne West Allis	Milwaukee	MW-3

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
NA	41	VZ512	

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed, and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
other _____	☐	

3. Time spent developing well 60 min.

4. Depth of well (from top of well casing) 14.57 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing 7.47 gal.

7. Volume of water removed from well 30.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	5.68 ft.	5.50 ft.
Date	b.	4/27/2017	4/27/2017
Time	c.	12:05 ☐ a.m. ☒ p.m.	03:35 ☐ a.m. ☒ p.m.
12. Sediment in well bottom		1.2 inches	0.2 inches
13. Water clarity		Clear ☐ 1 0 Turbid ☒ 1 5 (Describe) Brown Weak odor	Clear ☐ 2 0 Turbid ☒ 2 5 (Describe) Brown Weak odor

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm
Ashley Weimer
Tetra Tech

17. Additional comments on development:

Facility Address or Owner/Responsible Party Address

Name: _____

Firm: Teledyne

Street: 1910 S 53rd St.

City/State/Zip: West Allis, WI

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

Signature: Ashley A. Weimer

Print Name: Ashley Weimer

Firm: tetra tech

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	County	Well Name
Teledyne West Allis	Milwaukee	MW-4

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
NA	41	VZ513	

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed, and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
other _____	☐	

3. Time spent developing well 25 min.

4. Depth of well (from top of well casing) 15 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing 7.22 gal.

7. Volume of water removed from well 9.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	7.61 ft.	13.45 ft.
Date	b.	4/27/2017	4/27/2017
Time	c.	01:50 ☐ a.m. ☒ p.m.	02:15 ☐ a.m. ☒ p.m.
12. Sediment in well bottom		0.2 inches	3.4 inches
13. Water clarity		Clear ☐ 1 0 Turbid ☒ 1 5 (Describe) Brown Weak odor	Clear ☐ 2 0 Turbid ☒ 2 5 (Describe) Brown Weak odor

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm
Ashley Weimer
Tetra Tech

17. Additional comments on development:

Facility Address or Owner/Responsible Party Address

Name: _____

Firm: Teledyne

Street: 1910 S 53rd St.

City/State/Zip: West Allis, WI

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

Signature: Ashley A. Weimer

Print Name: Ashley Weimer

Firm: tetra tech

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	County	Well Name
Teledyne West Allis	Milwaukee	MW-5

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
NA	41	VZ514	

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed, and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
other _____	☐	

3. Time spent developing well 60 min.

4. Depth of well (from top of well casing) 13.17 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing 7.83 gal.

7. Volume of water removed from well 30.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	2.21 ft.	2.64 ft.
Date	b.	4/27/2017	4/27/2017
Time	c.	02:27 ☐ a.m. ☒ p.m.	04:45 ☐ a.m. ☒ p.m.
12. Sediment in well bottom		5.4 inches	0.0 inches
13. Water clarity		Clear ☐ 1 0 Turbid ☒ 1 5 (Describe) Brown Some odor	Clear ☐ 2 0 Turbid ☒ 2 5 (Describe) Brown Some odor

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm
Ashley Weimer
Tetra Tech

17. Additional comments on development:

Facility Address or Owner/Responsible Party Address

Name: _____

Firm: Teledyne

Street: 1910 S 53rd St.

City/State/Zip: West Allis, WI

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

Signature: Ashley A. Weimer

Print Name: Ashley Weimer

Firm: tetra tech

NOTE: See instructions for more information including a list of county codes and well type codes.

TETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION		INSTRUMENTS	
PROJECT	Teledyne West Allis	Temp., pH,	MP20 Flow Cell
PROJECT NO.	117-0509277.002	Conductivity	MP20 Flow Cell
LOCATION	West Allis, WI	ORP, DO	MP20 Flow Cell
PERSONNEL	Ashley A. Weimer	Turbidity	LeMotte 2020

MONITOR WELL ID	MW-1			MW-2			MW-3		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	5-2-17			5-2-17			5-2-17		
STATIC WATER LEVEL (ft)*/TIME	2.30	9:10		4.51	12:38		5.27	11:50	
WELL DEPTH (feet)*	15.05			13.40			14.45		
PUMP INLET DEPTH (feet)*	14.5			13.0			14.0		
ENDING WATER LEVEL (ft)*/TIME	2.91	9:40		4.66	12:57		5.32	12:12	
START PURGE TIME (Military)	9:12			12:38			11:52		
END PURGE TIME (Military)	9:35			12:56			12:11		
PURGE VOLUME (gallons)	1.0			2.0			2.0		
SAMPLE TIME (Military)	9:45			13:10			12:25		
INDICATOR PARAMETERS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes)	0:00	2:00	4:00	0:00	1:00	2:00	0:00	1:00	2:00
TEMPERATURE (° C)	8.69	8.66	8.67	9.39	9.37	9.41	9.22	9.18	9.18
pH	6.17	6.19	6.26	6.84	6.83	6.82	6.91	9.92	6.91
SPECIFIC COND. at 25°C (µS/cm)	2.10	2.11	2.10	1.311	1.311	1.311	3.13	3.13	3.13
ORP (mV)	98	92	87	-73	-75	-76	24	23	22
DISSOLVED OXYGEN (ppm)	2.17	2.11	2.04	0.42	0.42	0.40	0.43	0.42	0.40
DISSOLVED OXYGEN (% Sat.)	18.7	18.3	17.7	3.7	3.6	3.5	3.7	3.7	3.6
TURBIDITY (NTU)	--	--	2.18	--	--	19.2	--	--	3.54
COLOR	Clear			Clear			Clear		
ODOR	Weak to some			Some			Weak to none		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
PCBs Pesticides	2-125 mL; A; None; No			2-125 mL; A; None; No			2-125 mL; A; None; No		
SVOCS	2-1 L; A; None; No			2-1 L; A; None; No			2-1 L; A; None; No		
Metals Mercury	1-250 mL; P; HNO3; L; Yes			1-250 mL; P; HNO3; L; Yes			1-250 mL; P; HNO3; L; Yes		
VOCs	3-40 mL; G; HCl; L; No			3-40 mL; G; HCl; L; No			3-40 mL; G; HCl; L; No		
*collected turbidity after other parameters were stable.									
NAME OF LABORATORY	ALS			ALS			ALS		
DATE SENT TO LAB	5-2-17			5-2-17			5-2-17		
SAMPLER'S NAME	Ashley A. Weimer			Ashley A. Weimer			Ashley A. Weimer		

*Measured from top of well casing.

TETRA TECH

ETRA TECH LOW-FLOW METHOD FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION		INSTRUMENTS	
PROJECT	Teledyne West Allis	Temp., pH,	MP20 Flow Cell
PROJECT NO.	117-0509277.002	Conductivity	MP20 Flow Cell
LOCATION	West Allis, WI	ORP, DO	MP20 Flow Cell
PERSONNEL	Ashley A. Weimer	Turbidity	LeMotte 2020

MONITOR WELL ID	MW-4		MW-5			
WATER TYPE	Groundwater		Groundwater			
DATE (month/day/year)	5-2-17		5-2-17			
STATIC WATER LEVEL (ft)*/TIME	6.65	10:58	1.24	10:07		
WELL DEPTH (feet)*	15.03		13.17			
PUMP INLET DEPTH (feet)*	14.5		12.7			
ENDING WATER LEVEL (ft)*/TIME	6.87	11:21	1.30	10:26		
START PURGE TIME (Military)	11:00		10:07			
END PURGE TIME (Military)	11:20		10:25			
PURGE VOLUME (gallons)	1.5		1.5			
SAMPLE TIME (Military)	11:35		10:40			

INDICATOR PARAMETERS	1st	2nd	3rd	1st	2nd	3rd			
TIME (minutes)	0:00	1:00	2:00	0:00	1:00	2:00			
TEMPERATURE (° C)	9.42	9.44	9.44	8.65	8.63	8.63			
pH	6.70	6.71	6.71	6.84	6.84	6.84			
SPECIFIC COND. at 25°C (µS/cm)	1.271	1.276	1.280	0.786	0.784	0.784			
ORP (mV)	3	2	0	72	70	69			
DISSOLVED OXYGEN (ppm)	0.51	0.49	0.49	0.61	0.60	0.60			
DISSOLVED OXYGEN (% Sat.)	4.5	4.3	4.3	5.3	5.2	5.1			
TURBIDITY (NTU)	--	--	3.09	--	--	2.37			

COLOR	Clear	Clear	
ODOR	Some to strong	Some to strong	
CLARITY	Clear	Clear	

SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)		
PCBs Pesticides	2-125 mL; A; None; No	2-125 mL; A; None; No	
SVOCS	2-1 L; A; None; No	2-1 L; A; None; No	
Metals Mercury	1-250 mL; P; HNO3; L; Yes	1-250 mL; P; HNO3; L; Yes	
VOCs	3-40 mL; G; HCl; L; No	3-40 mL; G; HCl; L; No	
*collected turbidity after other parameters were stable.			
NAME OF LABORATORY	ALS	ALS	
DATE SENT TO LAB	5-2-17	5-2-17	
SAMPLER'S NAME	Ashley A. Weimer	Ashley A. Weimer	

*Measured from top of well casing.

TETRA TECH

TETRA TECH FIELD WATER LEVEL AND FREE PRODUCT DATA SHEET

Project Number: 117-0509277.002	Project Name: Teledyne West Allis	Location: West Allis, WI
Instrument: Heron Product Level Probe	Personnel: Ashley A. Weimer	

Monitor Well Identification	Date	Time	Depth to LNAPL (ft btoc)	Depth to Groundwater (ft btoc)	Depth to DNAPL (ft btoc)	Well Depth (ft btoc)	Comments
Pre-Development							
MW-1	**4-27-17**	**11:05**	**None Measured**	**3.10**	**None Measured**	**15.04**	
MW-2	**4-27-17**	**12:50**	**None Measured**	**4.79**	**None Measured**	**13.25**	
MW-3	**4-27-17**	**12:05**	**None Measured**	**5.68**	**None Measured**	**14.87**	
MW-4	**4-27-17**	**13:50**	**None Measured**	**7.61**	**None Measured**	**15.01**	
MW-5	**4-27-17**	**14:27**	**None Measured**	**2.21**	**None Measured**	**14.33**	
Post Development							
MW-1	**5-2-17**	**9:10**	**None Measured**	**2.30**	**Not Measured**	**15.05**	
MW-2	**5-2-17**	**12:38**	**None Measured**	**4.51**	**Not Measured**	**13.40**	
MW-3	**5-2-17**	**11:50**	**None Measured**	**5.27**	**Not Measured**	**14.45**	**Has soft bottom**
MW-4	**5-2-17**	**10:58**	**None Measured**	**6.65**	**Not Measured**	**15.03**	
MW-5	**5-2-17**	**10:07**	**None Measured**	**1.24**	**Not Measured**	**13.17**	**Has hard bottom**

Note: ft btoc = feet below top of casing.
LNAPL = Light Non-Aqueous Phase Liquid. DNAPL = Dense Non-Aqueous Phase Liquid.

TETRA TECH

TETRA TECH FIELD WATER LEVEL AND FREE PRODUCT DATA SHEET

Project Number: 117-0509277.002	Project Name: Teledyne West Allis	Location: West Allis, WI
Instrument: GeoTech Product Level Probe	Personnel: Ashley A. Wagner	

Monitor Well Identification	Date	Time	Depth to LNAPL (ft btoc)	Depth to Groundwater (ft btoc)	Depth to DNAPL (ft btoc)	Well Depth (ft btoc)	Comments
MW-1	**7-20-17**	**9:16**	**None Measured**	**4.14**	**None Measured**	**14.95**	
MW-2	**7-20-17**	**8:56**	**None Measured**	**5.03**	**None Measured**	**13.20**	
MW-3	**7-20-17**	**8:48**	**None Measured**	**6.32**	**None Measured**	**14.12**	
MW-4	**7-20-17**	**9:06**	**None Measured**	**9.29**	**None Measured**	**14.66**	
MW-5	**7-20-17**	**9:26**	**None Measured**	**4.03**	**None Measured**	**13.01**	

Note: ft btoc = feet below top of casing.

TETRA TECH

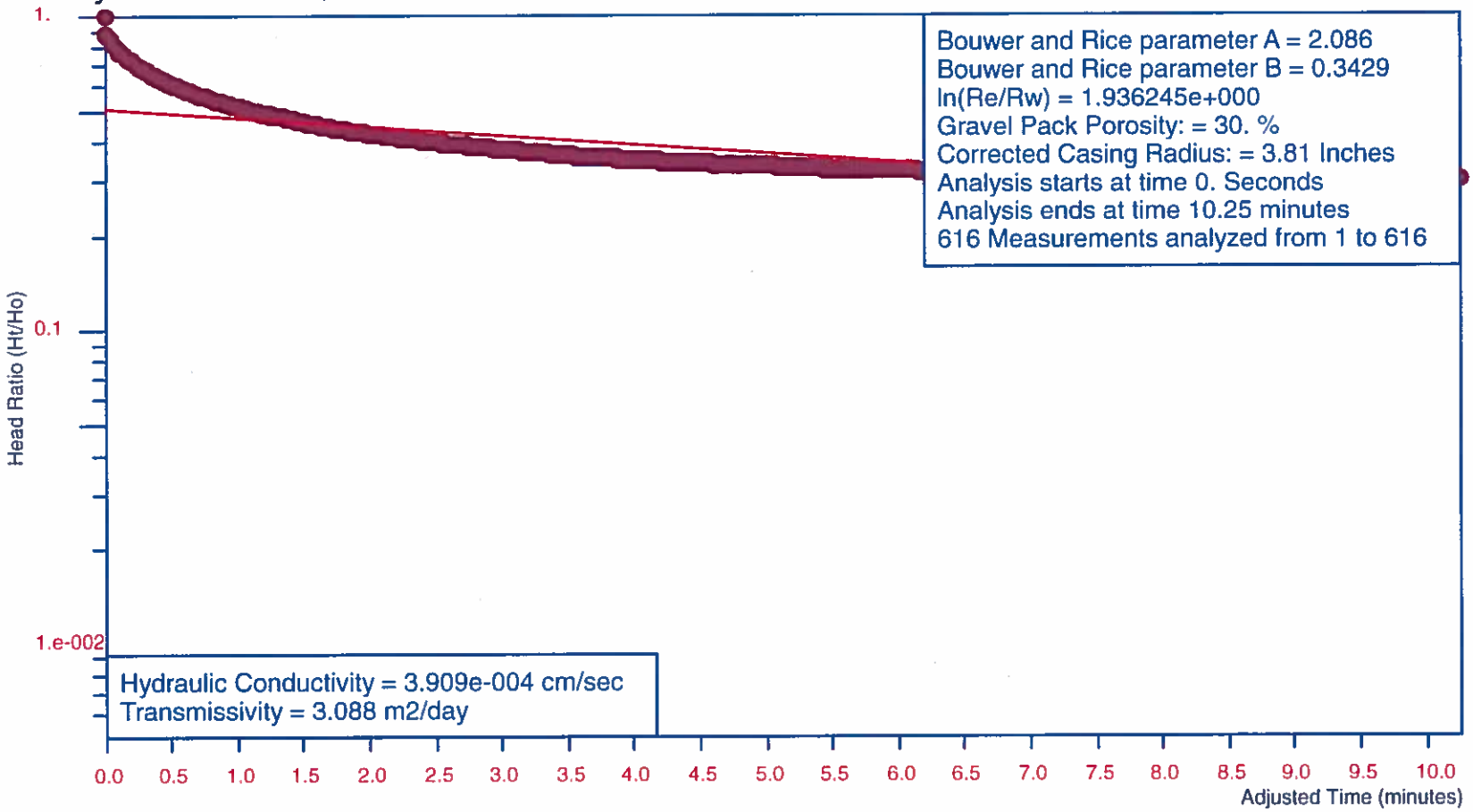
APPENDIX E
HYDRAULIC CONDUCTIVITY TEST RESULTS

Hydraulic Conductivity Test 1 May 4, 2017

Teledyne West Allis, WI

Bouwer and Rice Graph

TD-MW01



Client:: U.S. EPA

Analysis by Starpoint Software

Ho is 2.703 feet at 0. Seconds

Bouwer and Rice Automatic Parameter Estimation

Hydraulic Conductivity Test 1

Site Name:	Teledyne
Location:	West Allis, WI
Test Date:	May 4, 2017
Client:	U.S. EPA
Import File:	L:\G-Federal\G9026 - START IV\TDDs - Active\0003-1612-004_Teledyne Site

Well Label:	TD-MW01
Aquifer Thickness:	30. feet
Screen Length:	10. feet
Casing Radius:	2. Inches
Effective Radius:	6.25 Inches
Gravel Pack Porosity:	30. %
Corrected Casing Radius:	3.81 Inches
Bouwer and Rice Parameter A	2.086
Bouwer and Rice Parameter B	0.3429
Radius of Influence of Test	3.611 feet

Trial	Adjusted Time (Seconds)	Head (feet)	Head Ratio	Hyd. Con. (cm/sec)	Flow to Well (Gallons/Day)
1	0.	2.703	1.	--	
2	1.	2.41	0.8916	3.414e-002	5.661e+004
3	2.	2.345	0.8676	2.114e-002	3.41e+004
4	3.	2.286	0.8457	1.662e-002	2.614e+004
5	4.	2.23	0.825	1.431e-002	2.195e+004
6	5.	2.189	0.8098	1.255e-002	1.89e+004
7	6.	2.148	0.7947	1.14e-002	1.684e+004
8	7.	2.111	0.781	1.051e-002	1.526e+004
9	8.	2.079	0.7691	9.761e-003	1.396e+004
10	9.	2.047	0.7573	9.19e-003	1.294e+004
11	10.	2.019	0.7469	8.68e-003	1.206e+004
12	11.	1.996	0.7384	8.201e-003	1.126e+004
13	12.	1.969	0.7284	7.855e-003	1.064e+004
14	13.	1.946	0.7199	7.52e-003	1.007e+004
15	14.	1.923	0.7114	7.236e-003	9574
16	15.	1.9	0.7029	6.992e-003	9141
17	16.	1.881	0.6959	6.742e-003	8726
18	17.	1.863	0.6892	6.513e-003	8350
19	18.	1.845	0.6826	6.312e-003	8013
20	19.	1.826	0.6755	6.142e-003	7717
21	20.	1.808	0.6689	5.982e-003	7442
22	21.	1.789	0.6619	5.847e-003	7198
23	22.	1.776	0.657	5.68e-003	6941
24	23.	1.757	0.65	5.572e-003	6737
25	24.	1.744	0.6452	5.432e-003	6519
26	25.	1.73	0.64	5.311e-003	6322
27	26.	1.716	0.6349	5.199e-003	6139
28	27.	1.702	0.6297	5.097e-003	5969
29	28.	1.689	0.6249	4.996e-003	5807
30	29.	1.679	0.6212	4.885e-003	5644
31	30.	1.666	0.6164	4.799e-003	5502
32	31.	1.652	0.6112	4.726e-003	5372
33	32.	1.638	0.606	4.657e-003	5249
34	33.	1.629	0.6027	4.566e-003	5118
35	34.	1.62	0.5993	4.48e-003	4994

36	35.	1.606	0.5942	4.426e-003	4891
37	36.	1.597	0.5908	4.349e-003	4779
38	37.	1.587	0.5871	4.282e-003	4676
39	38.	1.578	0.5838	4.214e-003	4575
40	39.	1.569	0.5805	4.149e-003	4480
41	40.	1.56	0.5771	4.089e-003	4389
42	41.	1.546	0.572	4.054e-003	4313
43	42.	1.541	0.5701	3.981e-003	4221
44	43.	1.528	0.5653	3.947e-003	4150
45	44.	1.523	0.5634	3.879e-003	4065
46	45.	1.514	0.5601	3.832e-003	3992
47	46.	1.505	0.5568	3.787e-003	3922
48	47.	1.495	0.5531	3.749e-003	3857
49	48.	1.486	0.5498	3.708e-003	3792
50	49.	1.482	0.5483	3.649e-003	3721
51	50.	1.473	0.545	3.612e-003	3661
52	51.	1.463	0.5413	3.581e-003	3605
53	52.	1.459	0.5398	3.528e-003	3542
54	53.	1.45	0.5364	3.496e-003	3488
55	54.	1.445	0.5346	3.45e-003	3431
56	55.	1.436	0.5313	3.421e-003	3381
57	56.	1.427	0.5279	3.394e-003	3332
58	57.	1.422	0.5261	3.353e-003	3280
59	58.	1.417	0.5242	3.313e-003	3230
60	59.	1.408	0.5209	3.289e-003	3186
61	60.	1.404	0.5194	3.248e-003	3138
62	61.	1.399	0.5176	3.212e-003	3092
63	62.	1.39	0.5142	3.191e-003	3052
64	63.	1.385	0.5124	3.158e-003	3009
65	64.	1.381	0.5109	3.122e-003	2967
66	65.	1.371	0.5072	3.107e-003	2931
67	66.	1.367	0.5057	3.073e-003	2891
68	67.	1.362	0.5039	3.044e-003	2852
69	68.	1.358	0.5024	3.012e-003	2814
70	69.	1.349	0.4991	2.997e-003	2782
71	70.	1.344	0.4972	2.97e-003	2746
72	71.	1.339	0.4954	2.944e-003	2712
73	72.	1.335	0.4939	2.915e-003	2678
74	73.	1.33	0.492	2.89e-003	2645
75	74.	1.326	0.4906	2.863e-003	2613
76	75.	1.321	0.4887	2.84e-003	2582
77	76.	1.316	0.4869	2.818e-003	2551
78	77.	1.307	0.4835	2.808e-003	2525
79	78.	1.303	0.4821	2.783e-003	2495
80	79.	1.298	0.4802	2.763e-003	2467
81	80.	1.298	0.4802	2.728e-003	2437
82	81.	1.293	0.4784	2.709e-003	2410
83	82.	1.284	0.475	2.701e-003	2386
84	83.	1.28	0.4735	2.679e-003	2360
85	84.	1.275	0.4717	2.661e-003	2335
86	85.	1.275	0.4717	2.63e-003	2307
87	86.	1.27	0.4698	2.613e-003	2284
88	87.	1.266	0.4684	2.594e-003	2260
89	88.	1.261	0.4665	2.578e-003	2237
90	89.	1.257	0.465	2.559e-003	2214
91	90.	1.252	0.4632	2.544e-003	2192
92	91.	1.247	0.4613	2.529e-003	2170

93	92.	1.243	0.4599	2.512e-003	2149
94	93.	1.238	0.458	2.498e-003	2128
95	94.	1.234	0.4565	2.482e-003	2107
96	95.	1.234	0.4565	2.456e-003	2085
97	96.	1.229	0.4547	2.443e-003	2066
98	97.	1.224	0.4528	2.43e-003	2047
99	98.	1.22	0.4514	2.415e-003	2027
100	99.	1.215	0.4495	2.403e-003	2009
101	100.	1.211	0.448	2.389e-003	1991
102	101.	1.211	0.448	2.365e-003	1971
103	102.	1.206	0.4462	2.354e-003	1953
104	103.	1.202	0.4447	2.341e-003	1936
105	104.	1.197	0.4428	2.33e-003	1919
106	105.	1.197	0.4428	2.308e-003	1901
107	106.	1.192	0.441	2.298e-003	1885
108	107.	1.188	0.4395	2.286e-003	1869
109	108.	1.188	0.4395	2.265e-003	1851
110	109.	1.183	0.4377	2.255e-003	1836
111	110.	1.179	0.4362	2.244e-003	1821
112	111.	1.174	0.4343	2.235e-003	1806
113	112.	1.174	0.4343	2.215e-003	1790
114	113.	1.169	0.4325	2.207e-003	1775
115	114.	1.165	0.431	2.197e-003	1761
116	115.	1.165	0.431	2.177e-003	1745
117	116.	1.16	0.4292	2.17e-003	1732
118	117.	1.16	0.4292	2.151e-003	1717
119	118.	1.156	0.4277	2.142e-003	1704
120	119.	1.151	0.4258	2.134e-003	1690
121	120.	1.151	0.4258	2.117e-003	1676
122	121.	1.147	0.4243	2.108e-003	1664
123	122.	1.142	0.4225	2.101e-003	1651
124	123.	1.142	0.4225	2.084e-003	1638
125	124.	1.137	0.4206	2.078e-003	1626
126	125.	1.137	0.4206	2.061e-003	1613
127	126.	1.133	0.4192	2.053e-003	1601
128	127.	1.128	0.4173	2.047e-003	1589
129	128.	1.128	0.4173	2.031e-003	1577
130	129.	1.123	0.4155	2.026e-003	1565
131	130.	1.123	0.4155	2.01e-003	1553
132	131.	1.119	0.414	2.003e-003	1542
133	132.	1.119	0.414	1.988e-003	1531
134	133.	1.114	0.4121	1.983e-003	1520
135	134.	1.11	0.4107	1.976e-003	1509
136	135.	1.11	0.4107	1.961e-003	1498
137	136.	1.105	0.4088	1.957e-003	1488
138	137.	1.105	0.4088	1.943e-003	1477
139	138.	1.1	0.407	1.938e-003	1467
140	139.	1.1	0.407	1.924e-003	1457
141	140.	1.096	0.4055	1.918e-003	1447
142	141.	1.096	0.4055	1.905e-003	1436
143	142.	1.091	0.4036	1.901e-003	1427
144	143.	1.096	0.4055	1.878e-003	1416
145	144.	1.087	0.4021	1.882e-003	1408
146	145.	1.082	0.4003	1.879e-003	1399
147	146.	1.087	0.4021	1.856e-003	1388
148	147.	1.087	0.4021	1.844e-003	1379
149	148.	1.082	0.4003	1.841e-003	1370

150	149.	1.078	0.3988	1.836e-003	1362
151	150.	1.078	0.3988	1.823e-003	1352
152	151.	1.073	0.397	1.82e-003	1344
153	152.	1.073	0.397	1.808e-003	1335
154	153.	1.068	0.3951	1.806e-003	1327
155	154.	1.073	0.397	1.785e-003	1318
156	155.	1.064	0.3936	1.79e-003	1310
157	156.	1.064	0.3936	1.778e-003	1302
158	157.	1.064	0.3936	1.767e-003	1294
159	158.	1.064	0.3936	1.756e-003	1285
160	159.	1.059	0.3918	1.753e-003	1278
161	160.	1.055	0.3903	1.749e-003	1270
162	161.	1.059	0.3918	1.732e-003	1262
163	162.	1.055	0.3903	1.728e-003	1254
164	163.	1.05	0.3885	1.726e-003	1247
165	164.	1.05	0.3885	1.715e-003	1239
166	165.	1.045	0.3866	1.714e-003	1232
167	166.	1.045	0.3866	1.703e-003	1225
168	167.	1.045	0.3866	1.693e-003	1217
169	168.	1.041	0.3851	1.69e-003	1210
170	169.	1.041	0.3851	1.68e-003	1203
171	170.	1.041	0.3851	1.67e-003	1196
172	171.	1.036	0.3833	1.669e-003	1189
173	172.	1.036	0.3833	1.659e-003	1183
174	173.	1.036	0.3833	1.649e-003	1176
175	174.	1.036	0.3833	1.64e-003	1169
176	175.	1.032	0.3818	1.637e-003	1162
177	176.	1.027	0.3799	1.636e-003	1156
178	177.	1.022	0.3781	1.635e-003	1150
179	178.	1.022	0.3781	1.626e-003	1143
180	179.	1.022	0.3781	1.617e-003	1137
181	180.	1.022	0.3781	1.608e-003	1131
182	181.	1.022	0.3781	1.599e-003	1124
183	182.	1.018	0.3766	1.596e-003	1118
184	183.	1.018	0.3766	1.588e-003	1112
185	184.	1.018	0.3766	1.579e-003	1106
186	185.	1.013	0.3748	1.578e-003	1100
187	186.	1.013	0.3748	1.57e-003	1094
188	187.	1.013	0.3748	1.561e-003	1088
189	188.	1.013	0.3748	1.553e-003	1083
190	189.	1.009	0.3733	1.551e-003	1077
191	190.	1.009	0.3733	1.543e-003	1071
192	191.	1.009	0.3733	1.535e-003	1066
193	192.	1.004	0.3714	1.535e-003	1060
194	193.	0.999	0.3696	1.534e-003	1055
195	194.	1.004	0.3714	1.519e-003	1049
196	195.	0.999	0.3696	1.519e-003	1044
197	196.	0.999	0.3696	1.511e-003	1039
198	197.	0.999	0.3696	1.503e-003	1033
199	198.	0.995	0.3681	1.502e-003	1028
200	199.	0.995	0.3681	1.494e-003	1023
201	200.	0.995	0.3681	1.487e-003	1018
202	201.	0.995	0.3681	1.479e-003	1013
203	202.	0.99	0.3663	1.479e-003	1008
204	203.	0.99	0.3663	1.472e-003	1003
205	204.	0.986	0.3648	1.471e-003	997.9
206	205.	0.986	0.3648	1.464e-003	993.

207	206.	0.986	0.3648	1.456e-003	988.2
208	207.	0.986	0.3648	1.449e-003	983.4
209	208.	0.981	0.3629	1.45e-003	978.6
210	209.	0.981	0.3629	1.443e-003	973.9
211	210.	0.981	0.3629	1.436e-003	969.3
212	211.	0.981	0.3629	1.429e-003	964.7
213	212.	0.977	0.3615	1.428e-003	960.1
214	213.	0.977	0.3615	1.421e-003	955.6
215	214.	0.972	0.3596	1.422e-003	951.
216	215.	0.972	0.3596	1.415e-003	946.6
217	216.	0.972	0.3596	1.409e-003	942.2
218	217.	0.972	0.3596	1.402e-003	937.9
219	218.	0.972	0.3596	1.396e-003	933.6
220	219.	0.972	0.3596	1.389e-003	929.3
221	220.	0.967	0.3578	1.39e-003	925.
222	221.	0.967	0.3578	1.384e-003	920.8
223	222.	0.967	0.3578	1.378e-003	916.6
224	223.	0.967	0.3578	1.371e-003	912.5
225	224.	0.967	0.3578	1.365e-003	908.4
226	225.	0.963	0.3563	1.365e-003	904.3
227	226.	0.963	0.3563	1.359e-003	900.3
228	227.	0.967	0.3578	1.347e-003	896.4
229	228.	0.963	0.3563	1.347e-003	892.4
230	229.	0.963	0.3563	1.341e-003	888.5
231	230.	0.958	0.3544	1.342e-003	884.5
232	231.	0.958	0.3544	1.336e-003	880.7
233	232.	0.963	0.3563	1.324e-003	877.
234	233.	0.953	0.3526	1.331e-003	872.9
235	234.	0.953	0.3526	1.325e-003	869.2
236	235.	0.953	0.3526	1.32e-003	865.5
237	236.	0.953	0.3526	1.314e-003	861.8
238	237.	0.953	0.3526	1.309e-003	858.2
239	238.	0.953	0.3526	1.303e-003	854.6
240	239.	0.949	0.3511	1.303e-003	850.9
241	240.	0.949	0.3511	1.298e-003	847.3
242	241.	0.949	0.3511	1.292e-003	843.8
243	242.	0.949	0.3511	1.287e-003	840.3
244	243.	0.944	0.3492	1.288e-003	836.6
245	244.	0.949	0.3511	1.276e-003	833.4
246	245.	0.944	0.3492	1.278e-003	829.8
247	246.	0.944	0.3492	1.272e-003	826.4
248	247.	0.944	0.3492	1.267e-003	823.1
249	248.	0.94	0.3478	1.267e-003	819.6
250	249.	0.94	0.3478	1.262e-003	816.3
251	250.	0.94	0.3478	1.257e-003	813.
252	251.	0.94	0.3478	1.252e-003	809.8
253	252.	0.935	0.3459	1.253e-003	806.3
254	253.	0.935	0.3459	1.248e-003	803.2
255	254.	0.935	0.3459	1.243e-003	800.
256	255.	0.935	0.3459	1.239e-003	796.9
257	256.	0.935	0.3459	1.234e-003	793.7
258	257.	0.935	0.3459	1.229e-003	790.7
259	258.	0.931	0.3444	1.229e-003	787.4
260	259.	0.931	0.3444	1.224e-003	784.4
261	260.	0.931	0.3444	1.22e-003	781.3
262	261.	0.931	0.3444	1.215e-003	778.3
263	262.	0.931	0.3444	1.21e-003	775.4

264	263.	0.926	0.3426	1.212e-003	772.2
265	264.	0.926	0.3426	1.207e-003	769.2
266	265.	0.926	0.3426	1.203e-003	766.3
267	266.	0.926	0.3426	1.198e-003	763.4
268	267.	0.926	0.3426	1.194e-003	760.6
269	268.	0.926	0.3426	1.189e-003	757.7
270	269.	0.926	0.3426	1.185e-003	754.9
271	270.	0.921	0.3407	1.186e-003	751.9
272	271.	0.921	0.3407	1.182e-003	749.1
273	272.	0.921	0.3407	1.178e-003	746.3
274	273.	0.921	0.3407	1.173e-003	743.6
275	274.	0.921	0.3407	1.169e-003	740.9
276	275.	0.921	0.3407	1.165e-003	738.2
277	276.	0.917	0.3393	1.165e-003	735.3
278	277.	0.917	0.3393	1.161e-003	732.6
279	278.	0.917	0.3393	1.157e-003	730.
280	279.	0.917	0.3393	1.153e-003	727.4
281	280.	0.917	0.3393	1.149e-003	724.8
282	281.	0.917	0.3393	1.145e-003	722.2
283	282.	0.917	0.3393	1.141e-003	719.6
284	283.	0.912	0.3374	1.142e-003	716.8
285	284.	0.912	0.3374	1.138e-003	714.3
286	285.	0.912	0.3374	1.134e-003	711.8
287	286.	0.912	0.3374	1.13e-003	709.3
288	287.	0.908	0.3359	1.131e-003	706.5
289	288.	0.912	0.3374	1.122e-003	704.3
290	289.	0.908	0.3359	1.123e-003	701.7
291	290.	0.908	0.3359	1.119e-003	699.2
292	291.	0.908	0.3359	1.115e-003	696.8
293	292.	0.912	0.3374	1.107e-003	694.7
294	293.	0.908	0.3359	1.108e-003	692.1
295	294.	0.912	0.3374	1.099e-003	690.
296	295.	0.908	0.3359	1.1e-003	687.4
297	296.	0.908	0.3359	1.096e-003	685.1
298	297.	0.908	0.3359	1.093e-003	682.8
299	298.	0.908	0.3359	1.089e-003	680.5
300	299.	0.903	0.3341	1.091e-003	677.9
301	300.	0.903	0.3341	1.087e-003	675.6
302	301.	0.903	0.3341	1.084e-003	673.4
303	302.	0.903	0.3341	1.08e-003	671.1
304	303.	0.903	0.3341	1.077e-003	668.9
305	304.	0.903	0.3341	1.073e-003	666.7
306	305.	0.898	0.3322	1.075e-003	664.2
307	306.	0.898	0.3322	1.071e-003	662.
308	307.	0.898	0.3322	1.068e-003	659.9
309	308.	0.898	0.3322	1.064e-003	657.7
310	309.	0.898	0.3322	1.061e-003	655.6
311	310.	0.894	0.3307	1.062e-003	653.2
312	311.	0.898	0.3322	1.054e-003	651.4
313	312.	0.894	0.3307	1.055e-003	649.
314	313.	0.894	0.3307	1.052e-003	647.
315	314.	0.894	0.3307	1.048e-003	644.9
316	315.	0.894	0.3307	1.045e-003	642.8
317	316.	0.894	0.3307	1.042e-003	640.8
318	317.	0.894	0.3307	1.038e-003	638.8
319	318.	0.894	0.3307	1.035e-003	636.8
320	319.	0.889	0.3289	1.037e-003	634.4

321	320.	0.889	0.3289	1.034e-003	632.4
322	321.	0.889	0.3289	1.031e-003	630.5
323	322.	0.889	0.3289	1.027e-003	628.5
324	323.	0.889	0.3289	1.024e-003	626.6
325	324.	0.889	0.3289	1.021e-003	624.6
326	325.	0.889	0.3289	1.018e-003	622.7
327	326.	0.885	0.3274	1.019e-003	620.5
328	327.	0.885	0.3274	1.016e-003	618.6
329	328.	0.894	0.3307	1.004e-003	617.4
330	329.	0.889	0.3289	1.006e-003	615.1
331	330.	0.885	0.3274	1.007e-003	613.
332	331.	0.885	0.3274	1.004e-003	611.1
333	332.	0.885	0.3274	1.001e-003	609.3
334	333.	0.885	0.3274	9.976e-004	607.5
335	334.	0.885	0.3274	9.946e-004	605.7
336	335.	0.889	0.3289	9.876e-004	604.1
337	336.	0.885	0.3274	9.887e-004	602.1
338	337.	0.885	0.3274	9.857e-004	600.3
339	338.	0.885	0.3274	9.828e-004	598.5
340	339.	0.885	0.3274	9.799e-004	596.7
341	340.	0.88	0.3256	9.82e-004	594.6
342	341.	0.88	0.3256	9.791e-004	592.9
343	342.	0.885	0.3274	9.713e-004	591.5
344	343.	0.88	0.3256	9.734e-004	589.4
345	344.	0.885	0.3274	9.657e-004	588.1
346	345.	0.875	0.3237	9.727e-004	585.6
347	346.	0.88	0.3256	9.65e-004	584.3
348	347.	0.88	0.3256	9.622e-004	582.6
349	348.	0.88	0.3256	9.594e-004	580.9
350	349.	0.875	0.3237	9.615e-004	578.9
351	350.	0.875	0.3237	9.588e-004	577.3
352	351.	0.875	0.3237	9.56e-004	575.6
353	352.	0.875	0.3237	9.533e-004	574.
354	353.	0.875	0.3237	9.506e-004	572.4
355	354.	0.875	0.3237	9.479e-004	570.7
356	355.	0.875	0.3237	9.453e-004	569.1
357	356.	0.875	0.3237	9.426e-004	567.5
358	357.	0.871	0.3222	9.438e-004	565.6
359	358.	0.875	0.3237	9.374e-004	564.4
360	359.	0.875	0.3237	9.347e-004	562.8
361	360.	0.871	0.3222	9.359e-004	560.9
362	361.	0.871	0.3222	9.333e-004	559.4
363	362.	0.871	0.3222	9.308e-004	557.8
364	363.	0.871	0.3222	9.282e-004	556.3
365	364.	0.871	0.3222	9.256e-004	554.8
366	365.	0.871	0.3222	9.231e-004	553.2
367	366.	0.871	0.3222	9.206e-004	551.7
368	367.	0.871	0.3222	9.181e-004	550.2
369	368.	0.871	0.3222	9.156e-004	548.7
370	369.	0.866	0.3204	9.177e-004	546.9
371	370.	0.866	0.3204	9.153e-004	545.4
372	371.	0.866	0.3204	9.128e-004	543.9
373	372.	0.866	0.3204	9.103e-004	542.5
374	373.	0.866	0.3204	9.079e-004	541.
375	374.	0.866	0.3204	9.055e-004	539.6
376	375.	0.866	0.3204	9.031e-004	538.1
377	376.	0.866	0.3204	9.007e-004	536.7

378	377.	0.866	0.3204	8.983e-004	535.3
379	378.	0.866	0.3204	8.959e-004	533.8
380	379.	0.862	0.3189	8.972e-004	532.1
381	380.	0.866	0.3204	8.912e-004	531.
382	381.	0.866	0.3204	8.888e-004	529.6
383	382.	0.862	0.3189	8.901e-004	528.
384	383.	0.862	0.3189	8.878e-004	526.6
385	384.	0.862	0.3189	8.855e-004	525.2
386	385.	0.862	0.3189	8.832e-004	523.8
387	386.	0.862	0.3189	8.809e-004	522.5
388	387.	0.857	0.3171	8.831e-004	520.8
389	388.	0.857	0.3171	8.808e-004	519.4
390	389.	0.862	0.3189	8.741e-004	518.5
391	390.	0.862	0.3189	8.719e-004	517.1
392	391.	0.862	0.3189	8.696e-004	515.8
393	392.	0.857	0.3171	8.718e-004	514.1
394	393.	0.857	0.3171	8.696e-004	512.8
395	394.	0.857	0.3171	8.674e-004	511.5
396	395.	0.857	0.3171	8.652e-004	510.2
397	396.	0.852	0.3152	8.674e-004	508.5
398	397.	0.857	0.3171	8.608e-004	507.6
399	398.	0.857	0.3171	8.587e-004	506.4
400	399.	0.857	0.3171	8.565e-004	505.1
401	400.	0.857	0.3171	8.544e-004	503.8
402	401.	0.857	0.3171	8.523e-004	502.6
403	402.	0.857	0.3171	8.501e-004	501.3
404	403.	0.857	0.3171	8.48e-004	500.1
405	404.	0.857	0.3171	8.459e-004	498.8
406	405.	0.852	0.3152	8.481e-004	497.2
407	406.	0.852	0.3152	8.461e-004	496.
408	407.	0.852	0.3152	8.44e-004	494.8
409	408.	0.852	0.3152	8.419e-004	493.6
410	409.	0.857	0.3171	8.356e-004	492.7
411	410.	0.852	0.3152	8.378e-004	491.2
412	411.	0.852	0.3152	8.358e-004	490.
413	412.	0.852	0.3152	8.337e-004	488.8
414	413.	0.848	0.3137	8.351e-004	487.3
415	414.	0.852	0.3152	8.297e-004	486.4
416	415.	0.857	0.3171	8.235e-004	485.6
417	416.	0.852	0.3152	8.257e-004	484.1
418	417.	0.852	0.3152	8.237e-004	482.9
419	418.	0.852	0.3152	8.218e-004	481.8
420	419.	0.852	0.3152	8.198e-004	480.6
421	420.	0.848	0.3137	8.212e-004	479.2
422	421.	0.852	0.3152	8.159e-004	478.3
423	422.	0.848	0.3137	8.173e-004	476.9
424	423.	0.852	0.3152	8.12e-004	476.1
425	424.	0.848	0.3137	8.134e-004	474.6
426	425.	0.848	0.3137	8.115e-004	473.5
427	426.	0.848	0.3137	8.096e-004	472.4
428	427.	0.843	0.3119	8.118e-004	470.9
429	428.	0.848	0.3137	8.058e-004	470.2
430	429.	0.848	0.3137	8.04e-004	469.1
431	430.	0.843	0.3119	8.062e-004	467.6
432	431.	0.848	0.3137	8.002e-004	466.9
433	432.	0.843	0.3119	8.024e-004	465.5
434	433.	0.843	0.3119	8.006e-004	464.4

435	434.	0.843	0.3119	7.987e-004	463.3
436	435.	0.843	0.3119	7.969e-004	462.3
437	436.	0.843	0.3119	7.951e-004	461.2
438	437.	0.843	0.3119	7.933e-004	460.1
439	438.	0.843	0.3119	7.915e-004	459.1
440	439.	0.843	0.3119	7.896e-004	458.
441	440.	0.843	0.3119	7.879e-004	457.
442	441.	0.843	0.3119	7.861e-004	456.
443	442.	0.843	0.3119	7.843e-004	454.9
444	443.	0.843	0.3119	7.825e-004	453.9
445	444.	0.839	0.3104	7.839e-004	452.6
446	445.	0.839	0.3104	7.822e-004	451.6
447	446.	0.843	0.3119	7.773e-004	450.9
448	447.	0.839	0.3104	7.787e-004	449.5
449	448.	0.839	0.3104	7.769e-004	448.5
450	449.	0.839	0.3104	7.752e-004	447.5
451	450.	0.839	0.3104	7.735e-004	446.5
452	451.	0.839	0.3104	7.718e-004	445.6
453	452.	0.834	0.3085	7.74e-004	444.2
454	453.	0.839	0.3104	7.684e-004	443.6
455	454.	0.834	0.3085	7.706e-004	442.2
456	455.	0.839	0.3104	7.65e-004	441.6
457	456.	0.834	0.3085	7.672e-004	440.3
458	457.	0.839	0.3104	7.616e-004	439.7
459	458.	0.834	0.3085	7.639e-004	438.4
460	459.	0.834	0.3085	7.622e-004	437.4
461	460.	0.834	0.3085	7.605e-004	436.4
462	461.	0.839	0.3104	7.55e-004	435.9
463	462.	0.834	0.3085	7.573e-004	434.6
464	463.	0.834	0.3085	7.556e-004	433.6
465	464.	0.839	0.3104	7.502e-004	433.1
466	465.	0.834	0.3085	7.524e-004	431.8
467	466.	0.83	0.3071	7.538e-004	430.5
468	467.	0.834	0.3085	7.491e-004	429.9
469	468.	0.83	0.3071	7.506e-004	428.7
470	469.	0.834	0.3085	7.459e-004	428.1
471	470.	0.834	0.3085	7.444e-004	427.2
472	471.	0.834	0.3085	7.428e-004	426.3
473	472.	0.83	0.3071	7.442e-004	425.
474	473.	0.839	0.3104	7.359e-004	424.8
475	474.	0.834	0.3085	7.381e-004	423.6
476	475.	0.83	0.3071	7.395e-004	422.4
477	476.	0.839	0.3104	7.312e-004	422.2
478	477.	0.83	0.3071	7.364e-004	420.6
479	478.	0.83	0.3071	7.349e-004	419.7
480	479.	0.83	0.3071	7.334e-004	418.8
481	480.	0.834	0.3085	7.289e-004	418.3
482	481.	0.83	0.3071	7.303e-004	417.1
483	482.	0.83	0.3071	7.288e-004	416.2
484	483.	0.83	0.3071	7.273e-004	415.4
485	484.	0.83	0.3071	7.258e-004	414.5
486	485.	0.83	0.3071	7.243e-004	413.7
487	486.	0.83	0.3071	7.228e-004	412.8
488	487.	0.83	0.3071	7.213e-004	412.
489	488.	0.83	0.3071	7.198e-004	411.1
490	489.	0.83	0.3071	7.184e-004	410.3
491	490.	0.83	0.3071	7.169e-004	409.4

492	491.	0.825	0.3052	7.191e-004	408.2
493	492.	0.83	0.3071	7.14e-004	407.8
494	493.	0.83	0.3071	7.125e-004	406.9
495	494.	0.825	0.3052	7.147e-004	405.7
496	495.	0.825	0.3052	7.133e-004	404.9
497	496.	0.825	0.3052	7.119e-004	404.1
498	497.	0.825	0.3052	7.104e-004	403.3
499	498.	0.825	0.3052	7.09e-004	402.5
500	499.	0.83	0.3071	7.04e-004	402.
501	500.	0.83	0.3071	7.026e-004	401.2
502	501.	0.825	0.3052	7.047e-004	400.1
503	502.	0.825	0.3052	7.033e-004	399.3
504	503.	0.825	0.3052	7.019e-004	398.5
505	504.	0.83	0.3071	6.97e-004	398.1
506	505.	0.825	0.3052	6.992e-004	396.9
507	506.	0.825	0.3052	6.978e-004	396.1
508	507.	0.82	0.3034	7.e-004	394.9
509	508.	0.825	0.3052	6.95e-004	394.6
510	509.	0.825	0.3052	6.937e-004	393.8
511	510.	0.82	0.3034	6.959e-004	392.6
512	511.	0.82	0.3034	6.945e-004	391.9
513	512.	0.83	0.3071	6.861e-004	391.8
514	513.	0.825	0.3052	6.883e-004	390.7
515	514.	0.825	0.3052	6.869e-004	389.9
516	515.	0.816	0.3019	6.919e-004	388.5
517	516.	0.82	0.3034	6.878e-004	388.1
518	517.	0.83	0.3071	6.795e-004	388.
519	518.	0.825	0.3052	6.816e-004	386.9
520	519.	0.82	0.3034	6.838e-004	385.8
521	520.	0.82	0.3034	6.825e-004	385.1
522	521.	0.82	0.3034	6.812e-004	384.3
523	522.	0.825	0.3052	6.764e-004	384.
524	523.	0.82	0.3034	6.786e-004	382.9
525	524.	0.82	0.3034	6.773e-004	382.1
526	525.	0.82	0.3034	6.76e-004	381.4
527	526.	0.82	0.3034	6.747e-004	380.7
528	527.	0.82	0.3034	6.734e-004	380.
529	528.	0.82	0.3034	6.721e-004	379.2
530	529.	0.82	0.3034	6.709e-004	378.5
531	530.	0.82	0.3034	6.696e-004	377.8
532	531.	0.82	0.3034	6.683e-004	377.1
533	532.	0.82	0.3034	6.671e-004	376.4
534	533.	0.816	0.3019	6.686e-004	375.4
535	534.	0.82	0.3034	6.646e-004	375.
536	535.	0.82	0.3034	6.633e-004	374.3
537	536.	0.816	0.3019	6.648e-004	373.3
538	537.	0.82	0.3034	6.609e-004	372.9
539	538.	0.82	0.3034	6.596e-004	372.2
540	539.	0.82	0.3034	6.584e-004	371.5
541	540.	0.82	0.3034	6.572e-004	370.8
542	541.	0.82	0.3034	6.56e-004	370.1
543	542.	0.82	0.3034	6.548e-004	369.4
544	543.	0.816	0.3019	6.562e-004	368.5
545	544.	0.816	0.3019	6.55e-004	367.8
546	545.	0.82	0.3034	6.512e-004	367.4
547	546.	0.82	0.3034	6.5e-004	366.7
548	547.	0.816	0.3019	6.514e-004	365.8

549	548.	0.816	0.3019	6.503e-004	365.1
550	549.	0.816	0.3019	6.491e-004	364.4
551	550.	0.816	0.3019	6.479e-004	363.8
552	551.	0.816	0.3019	6.467e-004	363.1
553	552.	0.811	0.3	6.489e-004	362.1
554	553.	0.811	0.3	6.477e-004	361.4
555	554.	0.816	0.3019	6.432e-004	361.2
556	555.	0.816	0.3019	6.421e-004	360.5
557	556.	0.816	0.3019	6.409e-004	359.9
558	557.	0.811	0.3	6.43e-004	358.8
559	558.	0.816	0.3019	6.386e-004	358.6
560	559.	0.816	0.3019	6.375e-004	357.9
561	560.	0.811	0.3	6.396e-004	356.9
562	561.	0.816	0.3019	6.352e-004	356.6
563	562.	0.811	0.3	6.373e-004	355.6
564	563.	0.816	0.3019	6.329e-004	355.4
565	564.	0.816	0.3019	6.318e-004	354.7
566	565.	0.816	0.3019	6.307e-004	354.1
567	566.	0.811	0.3	6.328e-004	353.1
568	567.	0.811	0.3	6.317e-004	352.5
569	568.	0.811	0.3	6.306e-004	351.9
570	569.	0.811	0.3	6.295e-004	351.3
571	570.	0.811	0.3	6.284e-004	350.7
572	571.	0.811	0.3	6.273e-004	350.
573	572.	0.811	0.3	6.262e-004	349.4
574	573.	0.811	0.3	6.251e-004	348.8
575	574.	0.811	0.3	6.24e-004	348.2
576	575.	0.811	0.3	6.229e-004	347.6
577	576.	0.811	0.3	6.218e-004	347.
578	577.	0.811	0.3	6.207e-004	346.4
579	578.	0.811	0.3	6.197e-004	345.8
580	579.	0.807	0.2986	6.211e-004	344.9
581	580.	0.811	0.3	6.175e-004	344.6
582	581.	0.807	0.2986	6.19e-004	343.7
583	582.	0.807	0.2986	6.179e-004	343.1
584	583.	0.811	0.3	6.144e-004	342.8
585	584.	0.811	0.3	6.133e-004	342.2
586	585.	0.811	0.3	6.123e-004	341.7
587	586.	0.811	0.3	6.112e-004	341.1
588	587.	0.807	0.2986	6.127e-004	340.2
589	588.	0.811	0.3	6.091e-004	339.9
590	589.	0.811	0.3	6.081e-004	339.3
591	590.	0.807	0.2986	6.096e-004	338.5
592	591.	0.811	0.3	6.06e-004	338.2
593	592.	0.811	0.3	6.05e-004	337.6
594	593.	0.807	0.2986	6.065e-004	336.8
595	594.	0.811	0.3	6.03e-004	336.5
596	595.	0.807	0.2986	6.044e-004	335.6
597	596.	0.811	0.3	6.01e-004	335.4
598	597.	0.807	0.2986	6.024e-004	334.5
599	598.	0.811	0.3	5.989e-004	334.2
600	599.	0.807	0.2986	6.004e-004	333.4
601	600.	0.811	0.3	5.97e-004	333.1
602	601.	0.811	0.3	5.96e-004	332.6
603	602.	0.807	0.2986	5.974e-004	331.7
604	603.	0.811	0.3	5.94e-004	331.5
605	604.	0.807	0.2986	5.954e-004	330.6

606	605.	0.811	0.3	5.92e-004	330.4
607	606.	0.807	0.2986	5.935e-004	329.5
608	607.	0.807	0.2986	5.925e-004	329.
609	608.	0.807	0.2986	5.915e-004	328.5
610	609.	0.807	0.2986	5.905e-004	327.9
611	610.	0.807	0.2986	5.896e-004	327.4
612	611.	0.807	0.2986	5.886e-004	326.8
613	612.	0.807	0.2986	5.876e-004	326.3
614	613.	0.807	0.2986	5.867e-004	325.8
615	614.	0.807	0.2986	5.857e-004	325.3
616	615.	0.807	0.2986	5.848e-004	324.7

Arithmetic Means:

Hydraulic Conductivity	1.718e-003 cm/sec
Transmissivity	13.57 m2/day

Geometric Means:

Hydraulic Conductivity	1.267e-003 cm/sec
Transmissivity	10.01 m2/day

Sensitivity Analysis:

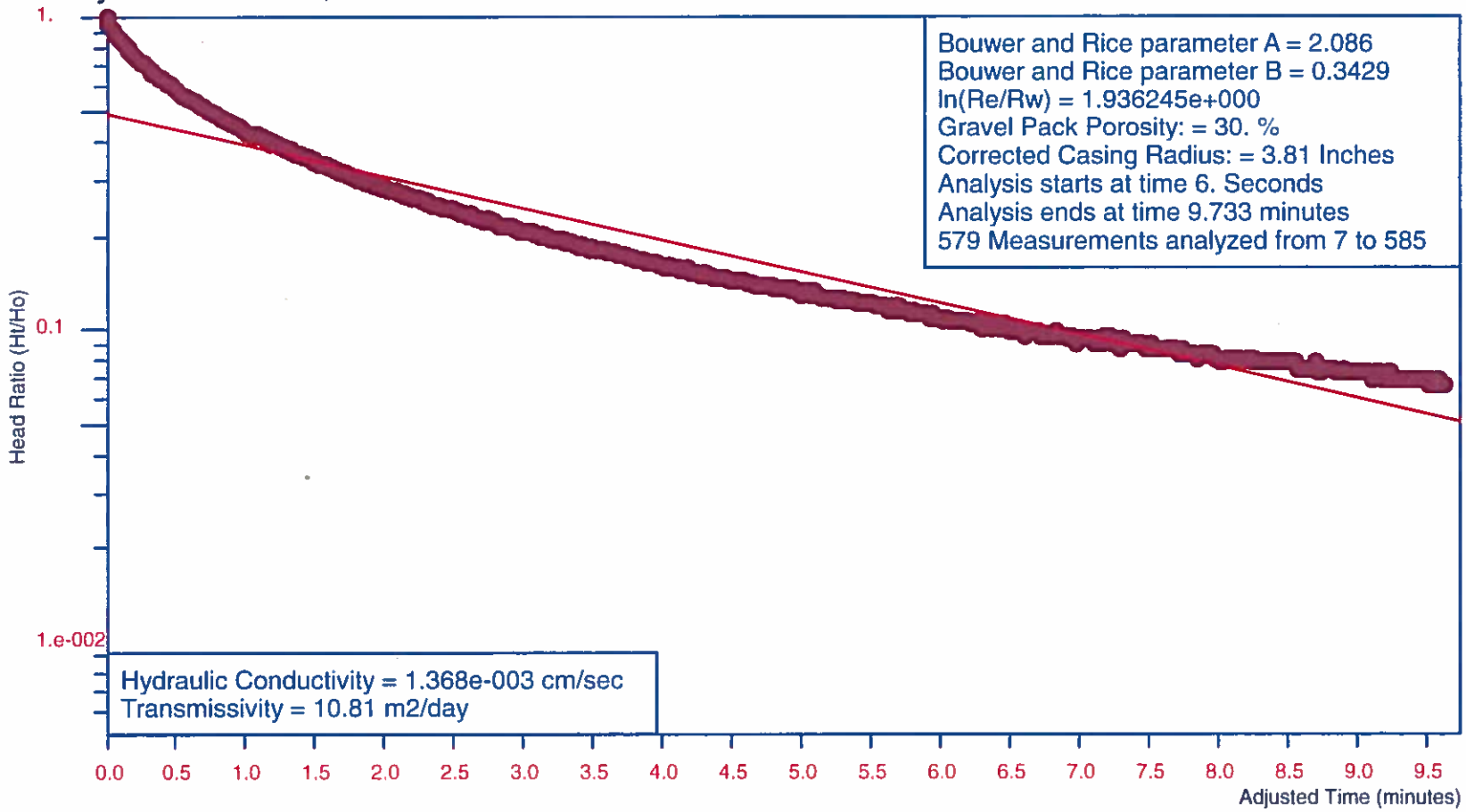
Hydraulic Conductivity	1.111e-003 cm/sec
Transmissivity	8.78 m2/day

Hydraulic Conductivity Test 2 May 4, 2017

Bouwer and Rice Graph

Teledyne West Allis, WI

TD-MW01



Client:: U.S. EPA

Analysis by Starpoint Software

Ho is 1.594 feet at 6. Seconds

Bouwer and Rice Automatic Parameter Estimation

Hydraulic Conductivity Test 2

Site Name:	Teledyne
Location:	West Allis, WI
Test Date:	May 4, 2017
Client:	U.S. EPA
Import File:	L:\G-Federal\G9026 - START IV\TDDs - Active\0003-1612-004_Teledyne Site

Well Label:	TD-MW01
Aquifer Thickness:	30. feet
Screen Length:	10. feet
Casing Radius:	2. Inches
Effective Radius:	6.25 Inches
Gravel Pack Porosity:	30. %
Corrected Casing Radius:	3.81 Inches
Bouwer and Rice Parameter A	2.086
Bouwer and Rice Parameter B	0.3429
Radius of Influence of Test	3.611 feet

Trial	Adjusted Time (Seconds)	Head (feet)	Head Ratio	Hyd. Con. (cm/sec)	Flow to Well (Gallons/Day)
7	0.	1.594	1.	--	
8	1.	1.534	0.9624	1.142e-002	1.205e+004
9	2.	1.493	0.9366	9.738e-003	1.e+004
10	3.	1.451	0.9103	9.322e-003	9307
11	4.	1.419	0.8902	8.65e-003	8446
12	5.	1.387	0.8701	8.277e-003	7900
13	6.	1.355	0.8501	8.055e-003	7510
14	7.	1.327	0.8325	7.792e-003	7115
15	8.	1.304	0.8181	7.468e-003	6701
16	9.	1.277	0.8011	7.33e-003	6441
17	10.	1.254	0.7867	7.138e-003	6159
18	11.	1.231	0.7723	6.99e-003	5920
19	12.	1.212	0.7604	6.793e-003	5665
20	13.	1.189	0.7459	6.709e-003	5489
21	14.	1.171	0.7346	6.554e-003	5281
22	15.	1.153	0.7233	6.424e-003	5097
23	16.	1.134	0.7114	6.332e-003	4940
24	17.	1.121	0.7033	6.161e-003	4752
25	18.	1.102	0.6913	6.101e-003	4626
26	19.	1.084	0.6801	6.038e-003	4504
27	20.	1.07	0.6713	5.929e-003	4366
28	21.	1.056	0.6625	5.834e-003	4239
29	22.	1.042	0.6537	5.749e-003	4122
30	23.	1.029	0.6455	5.661e-003	4009
31	24.	1.015	0.6368	5.595e-003	3908
32	25.	1.001	0.628	5.537e-003	3814
33	26.	0.987	0.6192	5.485e-003	3725
34	27.	0.978	0.6136	5.383e-003	3622
35	28.	0.964	0.6048	5.344e-003	3545
36	29.	0.951	0.5966	5.299e-003	3467
37	30.	0.942	0.591	5.216e-003	3381
38	31.	0.928	0.5822	5.192e-003	3315
39	32.	0.919	0.5765	5.12e-003	3238
40	33.	0.9	0.5646	5.153e-003	3191
41	34.	0.895	0.5615	5.051e-003	3110

42	35.	0.886	0.5558	4.992e-003	3044
43	36.	0.877	0.5502	4.938e-003	2980
44	37.	0.863	0.5414	4.934e-003	2930
45	38.	0.859	0.5389	4.84e-003	2861
46	39.	0.845	0.5301	4.842e-003	2815
47	40.	0.84	0.527	4.765e-003	2754
48	41.	0.827	0.5188	4.762e-003	2710
49	42.	0.822	0.5157	4.691e-003	2653
50	43.	0.813	0.51	4.658e-003	2606
51	44.	0.804	0.5044	4.628e-003	2560
52	45.	0.794	0.4981	4.608e-003	2517
53	46.	0.79	0.4956	4.54e-003	2468
54	47.	0.785	0.4925	4.484e-003	2422
55	48.	0.772	0.4843	4.494e-003	2387
56	49.	0.762	0.478	4.481e-003	2350
57	50.	0.758	0.4755	4.423e-003	2307
58	51.	0.748	0.4693	4.414e-003	2272
59	52.	0.744	0.4668	4.36e-003	2232
60	53.	0.735	0.4611	4.346e-003	2198
61	54.	0.726	0.4555	4.333e-003	2165
62	55.	0.721	0.4523	4.292e-003	2129
63	56.	0.712	0.4467	4.282e-003	2098
64	57.	0.707	0.4435	4.243e-003	2064
65	58.	0.698	0.4379	4.236e-003	2034
66	59.	0.693	0.4348	4.2e-003	2003
67	60.	0.689	0.4322	4.159e-003	1972
68	61.	0.68	0.4266	4.155e-003	1944
69	62.	0.675	0.4235	4.123e-003	1915
70	63.	0.666	0.4178	4.121e-003	1889
71	64.	0.666	0.4178	4.057e-003	1859
72	65.	0.67	0.4203	3.967e-003	1829
73	66.	0.661	0.4147	3.968e-003	1805
74	67.	0.657	0.4122	3.936e-003	1779
75	68.	0.652	0.409	3.911e-003	1755
76	69.	0.643	0.4034	3.915e-003	1732
77	70.	0.638	0.4003	3.892e-003	1709
78	71.	0.629	0.3946	3.897e-003	1686
79	72.	0.634	0.3977	3.81e-003	1662
80	73.	0.624	0.3915	3.822e-003	1641
81	74.	0.62	0.389	3.797e-003	1620
82	75.	0.615	0.3858	3.778e-003	1599
83	76.	0.611	0.3833	3.754e-003	1578
84	77.	0.606	0.3802	3.737e-003	1558
85	78.	0.602	0.3777	3.714e-003	1539
86	79.	0.597	0.3745	3.699e-003	1519
87	80.	0.592	0.3714	3.684e-003	1501
88	81.	0.588	0.3689	3.663e-003	1482
89	82.	0.583	0.3657	3.649e-003	1464
90	83.	0.579	0.3632	3.63e-003	1446
91	84.	0.574	0.3601	3.618e-003	1429
92	85.	0.569	0.357	3.606e-003	1412
93	86.	0.565	0.3545	3.588e-003	1395
94	87.	0.565	0.3545	3.547e-003	1379
95	88.	0.556	0.3488	3.561e-003	1362
96	89.	0.556	0.3488	3.521e-003	1347
97	90.	0.551	0.3457	3.512e-003	1331
98	91.	0.546	0.3425	3.503e-003	1316

99	92.	0.542	0.34	3.489e-003	1301
100	93.	0.537	0.3369	3.481e-003	1286
101	94.	0.533	0.3344	3.467e-003	1272
102	95.	0.533	0.3344	3.431e-003	1258
103	96.	0.528	0.3312	3.424e-003	1244
104	97.	0.523	0.3281	3.418e-003	1230
105	98.	0.519	0.3256	3.407e-003	1217
106	99.	0.519	0.3256	3.372e-003	1204
107	100.	0.514	0.3225	3.367e-003	1191
108	101.	0.51	0.3199	3.357e-003	1178
109	102.	0.505	0.3168	3.353e-003	1165
110	103.	0.505	0.3168	3.32e-003	1154
111	104.	0.5	0.3137	3.317e-003	1141
112	105.	0.496	0.3112	3.308e-003	1129
113	106.	0.491	0.308	3.305e-003	1117
114	107.	0.491	0.308	3.274e-003	1106
115	108.	0.487	0.3055	3.266e-003	1095
116	109.	0.482	0.3024	3.265e-003	1083
117	110.	0.482	0.3024	3.235e-003	1073
118	111.	0.477	0.2992	3.234e-003	1061
119	112.	0.473	0.2967	3.227e-003	1050
120	113.	0.473	0.2967	3.199e-003	1041
121	114.	0.468	0.2936	3.198e-003	1030
122	115.	0.464	0.2911	3.193e-003	1019
123	116.	0.464	0.2911	3.165e-003	1011
124	117.	0.464	0.2911	3.138e-003	1002
125	118.	0.459	0.288	3.139e-003	991.4
126	119.	0.455	0.2854	3.134e-003	981.3
127	120.	0.455	0.2854	3.108e-003	973.2
128	121.	0.45	0.2823	3.11e-003	962.9
129	122.	0.445	0.2792	3.112e-003	952.8
130	123.	0.445	0.2792	3.086e-003	945.
131	124.	0.441	0.2767	3.083e-003	935.5
132	125.	0.441	0.2767	3.058e-003	928.1
133	126.	0.436	0.2735	3.061e-003	918.3
134	127.	0.436	0.2735	3.037e-003	911.1
135	128.	0.432	0.271	3.035e-003	902.1
136	129.	0.427	0.2679	3.038e-003	892.6
137	130.	0.427	0.2679	3.015e-003	885.7
138	131.	0.427	0.2679	2.992e-003	879.
139	132.	0.422	0.2647	2.995e-003	869.8
140	133.	0.422	0.2647	2.973e-003	863.3
141	134.	0.418	0.2622	2.972e-003	854.8
142	135.	0.418	0.2622	2.95e-003	848.5
143	136.	0.413	0.2591	2.955e-003	839.6
144	137.	0.413	0.2591	2.933e-003	833.5
145	138.	0.409	0.2566	2.933e-003	825.3
146	139.	0.404	0.2535	2.938e-003	816.7
147	140.	0.404	0.2535	2.917e-003	810.9
148	141.	0.4	0.2509	2.917e-003	802.9
149	142.	0.4	0.2509	2.897e-003	797.3
150	143.	0.4	0.2509	2.876e-003	791.7
151	144.	0.395	0.2478	2.882e-003	783.4
152	145.	0.39	0.2447	2.889e-003	775.2
153	146.	0.39	0.2447	2.869e-003	769.9
154	147.	0.39	0.2447	2.849e-003	764.7
155	148.	0.386	0.2422	2.851e-003	757.2

156	149.	0.386	0.2422	2.832e-003	752.1
157	150.	0.386	0.2422	2.813e-003	747.1
158	151.	0.381	0.239	2.82e-003	739.3
159	152.	0.381	0.239	2.801e-003	734.4
160	153.	0.376	0.2359	2.809e-003	726.7
161	154.	0.372	0.2334	2.811e-003	719.6
162	155.	0.372	0.2334	2.793e-003	714.9
163	156.	0.367	0.2302	2.801e-003	707.3
164	157.	0.372	0.2334	2.757e-003	705.8
165	158.	0.367	0.2302	2.766e-003	698.4
166	159.	0.367	0.2302	2.748e-003	694.
167	160.	0.363	0.2277	2.751e-003	687.2
168	161.	0.363	0.2277	2.734e-003	682.9
169	162.	0.363	0.2277	2.717e-003	678.7
170	163.	0.353	0.2215	2.752e-003	668.4
171	164.	0.358	0.2246	2.709e-003	667.4
172	165.	0.358	0.2246	2.693e-003	663.4
173	166.	0.353	0.2215	2.702e-003	656.3
174	167.	0.353	0.2215	2.686e-003	652.4
175	168.	0.349	0.2189	2.69e-003	646.
176	169.	0.349	0.2189	2.674e-003	642.2
177	170.	0.344	0.2158	2.684e-003	635.2
178	171.	0.344	0.2158	2.668e-003	631.5
179	172.	0.344	0.2158	2.652e-003	627.8
180	173.	0.34	0.2133	2.657e-003	621.6
181	174.	0.34	0.2133	2.642e-003	618.1
182	175.	0.34	0.2133	2.627e-003	614.5
183	176.	0.335	0.2102	2.637e-003	607.8
184	177.	0.335	0.2102	2.622e-003	604.4
185	178.	0.331	0.2077	2.627e-003	598.4
186	179.	0.331	0.2077	2.613e-003	595.1
187	180.	0.331	0.2077	2.598e-003	591.7
188	181.	0.326	0.2045	2.609e-003	585.2
189	182.	0.326	0.2045	2.594e-003	582.
190	183.	0.326	0.2045	2.58e-003	578.8
191	184.	0.326	0.2045	2.566e-003	575.7
192	185.	0.321	0.2014	2.577e-003	569.3
193	186.	0.321	0.2014	2.563e-003	566.2
194	187.	0.317	0.1989	2.57e-003	560.5
195	188.	0.321	0.2014	2.536e-003	560.2
196	189.	0.317	0.1989	2.542e-003	554.6
197	190.	0.317	0.1989	2.529e-003	551.7
198	191.	0.317	0.1989	2.516e-003	548.8
199	192.	0.312	0.1957	2.527e-003	542.6
200	193.	0.312	0.1957	2.514e-003	539.8
201	194.	0.308	0.1932	2.521e-003	534.3
202	195.	0.312	0.1957	2.488e-003	534.2
203	196.	0.308	0.1932	2.495e-003	528.8
204	197.	0.308	0.1932	2.483e-003	526.2
205	198.	0.303	0.1901	2.495e-003	520.1
206	199.	0.303	0.1901	2.482e-003	517.5
207	200.	0.303	0.1901	2.47e-003	514.9
208	201.	0.303	0.1901	2.458e-003	512.4
209	202.	0.298	0.187	2.47e-003	506.4
210	203.	0.298	0.187	2.458e-003	504.
211	204.	0.294	0.1844	2.465e-003	498.7
212	205.	0.298	0.187	2.434e-003	499.

213	206.	0.294	0.1844	2.441e-003	493.9
214	207.	0.294	0.1844	2.43e-003	491.5
215	208.	0.294	0.1844	2.418e-003	489.1
216	209.	0.289	0.1813	2.431e-003	483.4
217	210.	0.294	0.1844	2.395e-003	484.5
218	211.	0.289	0.1813	2.408e-003	478.8
219	212.	0.285	0.1788	2.416e-003	473.8
220	213.	0.285	0.1788	2.405e-003	471.6
221	214.	0.285	0.1788	2.393e-003	469.4
222	215.	0.285	0.1788	2.382e-003	467.2
223	216.	0.28	0.1757	2.396e-003	461.5
224	217.	0.28	0.1757	2.385e-003	459.4
225	218.	0.28	0.1757	2.374e-003	457.3
226	219.	0.28	0.1757	2.363e-003	455.2
227	220.	0.28	0.1757	2.352e-003	453.2
228	221.	0.275	0.1725	2.366e-003	447.6
229	222.	0.275	0.1725	2.355e-003	445.6
230	223.	0.275	0.1725	2.344e-003	443.6
231	224.	0.275	0.1725	2.334e-003	441.6
232	225.	0.271	0.17	2.343e-003	436.9
233	226.	0.271	0.17	2.333e-003	435.
234	227.	0.271	0.17	2.322e-003	433.1
235	228.	0.271	0.17	2.312e-003	431.2
236	229.	0.266	0.1669	2.326e-003	425.8
237	230.	0.266	0.1669	2.316e-003	423.9
238	231.	0.266	0.1669	2.306e-003	422.1
239	232.	0.266	0.1669	2.296e-003	420.3
240	233.	0.262	0.1644	2.306e-003	415.7
241	234.	0.262	0.1644	2.296e-003	413.9
242	235.	0.262	0.1644	2.286e-003	412.1
243	236.	0.262	0.1644	2.276e-003	410.4
244	237.	0.262	0.1644	2.267e-003	408.6
245	238.	0.262	0.1644	2.257e-003	406.9
246	239.	0.257	0.1612	2.272e-003	401.7
247	240.	0.257	0.1612	2.262e-003	400.1
248	241.	0.252	0.1581	2.277e-003	394.9
249	242.	0.252	0.1581	2.268e-003	393.2
250	243.	0.257	0.1612	2.234e-003	395.1
251	244.	0.252	0.1581	2.249e-003	390.
252	245.	0.252	0.1581	2.24e-003	388.4
253	246.	0.252	0.1581	2.231e-003	386.8
254	247.	0.252	0.1581	2.222e-003	385.3
255	248.	0.248	0.1556	2.232e-003	380.9
256	249.	0.248	0.1556	2.223e-003	379.4
257	250.	0.248	0.1556	2.214e-003	377.8
258	251.	0.252	0.1581	2.186e-003	379.1
259	252.	0.243	0.1524	2.221e-003	371.3
260	253.	0.243	0.1524	2.212e-003	369.8
261	254.	0.243	0.1524	2.203e-003	368.4
262	255.	0.243	0.1524	2.195e-003	366.9
263	256.	0.239	0.1499	2.205e-003	362.7
264	257.	0.239	0.1499	2.197e-003	361.3
265	258.	0.243	0.1524	2.169e-003	362.7
266	259.	0.243	0.1524	2.161e-003	361.3
267	260.	0.239	0.1499	2.171e-003	357.1
268	261.	0.239	0.1499	2.163e-003	355.7
269	262.	0.234	0.1468	2.179e-003	350.8

270	263.	0.234	0.1468	2.171e-003	349.5
271	264.	0.234	0.1468	2.162e-003	348.2
272	265.	0.234	0.1468	2.154e-003	346.8
273	266.	0.234	0.1468	2.146e-003	345.5
274	267.	0.234	0.1468	2.138e-003	344.2
275	268.	0.234	0.1468	2.13e-003	343.
276	269.	0.23	0.1443	2.141e-003	338.9
277	270.	0.23	0.1443	2.133e-003	337.6
278	271.	0.23	0.1443	2.125e-003	336.4
279	272.	0.23	0.1443	2.118e-003	335.1
280	273.	0.23	0.1443	2.11e-003	333.9
281	274.	0.23	0.1443	2.102e-003	332.7
282	275.	0.23	0.1443	2.094e-003	331.5
283	276.	0.225	0.1412	2.111e-003	326.8
284	277.	0.225	0.1412	2.103e-003	325.6
285	278.	0.225	0.1412	2.095e-003	324.4
286	279.	0.225	0.1412	2.088e-003	323.2
287	280.	0.22	0.138	2.104e-003	318.5
288	281.	0.22	0.138	2.097e-003	317.4
289	282.	0.22	0.138	2.089e-003	316.3
290	283.	0.22	0.138	2.082e-003	315.2
291	284.	0.22	0.138	2.075e-003	314.1
292	285.	0.22	0.138	2.067e-003	313.
293	286.	0.22	0.138	2.06e-003	311.9
294	287.	0.22	0.138	2.053e-003	310.8
295	288.	0.216	0.1355	2.065e-003	306.9
296	289.	0.216	0.1355	2.058e-003	305.8
297	290.	0.216	0.1355	2.051e-003	304.8
298	291.	0.216	0.1355	2.044e-003	303.7
299	292.	0.216	0.1355	2.037e-003	302.7
300	293.	0.216	0.1355	2.03e-003	301.6
301	294.	0.216	0.1355	2.023e-003	300.6
302	295.	0.211	0.1324	2.039e-003	296.1
303	296.	0.216	0.1355	2.009e-003	298.6
304	297.	0.211	0.1324	2.026e-003	294.1
305	298.	0.211	0.1324	2.019e-003	293.1
306	299.	0.211	0.1324	2.012e-003	292.1
307	300.	0.206	0.1292	2.029e-003	287.6
308	301.	0.211	0.1324	1.999e-003	290.2
309	302.	0.211	0.1324	1.992e-003	289.2
310	303.	0.211	0.1324	1.986e-003	288.3
311	304.	0.206	0.1292	2.003e-003	283.8
312	305.	0.211	0.1324	1.973e-003	286.4
313	306.	0.206	0.1292	1.989e-003	282.
314	307.	0.206	0.1292	1.983e-003	281.1
315	308.	0.206	0.1292	1.977e-003	280.2
316	309.	0.202	0.1267	1.989e-003	276.5
317	310.	0.202	0.1267	1.983e-003	275.6
318	311.	0.202	0.1267	1.976e-003	274.7
319	312.	0.202	0.1267	1.97e-003	273.8
320	313.	0.202	0.1267	1.964e-003	272.9
321	314.	0.202	0.1267	1.957e-003	272.1
322	315.	0.197	0.1236	1.975e-003	267.7
323	316.	0.202	0.1267	1.945e-003	270.3
324	317.	0.197	0.1236	1.962e-003	266.
325	318.	0.202	0.1267	1.933e-003	268.6
326	319.	0.197	0.1236	1.95e-003	264.3

327	320.	0.197	0.1236	1.944e-003	263.5
328	321.	0.197	0.1236	1.938e-003	262.7
329	322.	0.197	0.1236	1.932e-003	261.9
330	323.	0.197	0.1236	1.926e-003	261.1
331	324.	0.193	0.1211	1.939e-003	257.5
332	325.	0.193	0.1211	1.933e-003	256.7
333	326.	0.193	0.1211	1.927e-003	255.9
334	327.	0.193	0.1211	1.921e-003	255.1
335	328.	0.193	0.1211	1.915e-003	254.3
336	329.	0.193	0.1211	1.909e-003	253.6
337	330.	0.193	0.1211	1.904e-003	252.8
338	331.	0.193	0.1211	1.898e-003	252.
339	332.	0.188	0.1179	1.916e-003	247.8
340	333.	0.188	0.1179	1.91e-003	247.1
341	334.	0.188	0.1179	1.904e-003	246.3
342	335.	0.188	0.1179	1.898e-003	245.6
343	336.	0.188	0.1179	1.893e-003	244.8
344	337.	0.188	0.1179	1.887e-003	244.1
345	338.	0.184	0.1154	1.9e-003	240.6
346	339.	0.188	0.1179	1.876e-003	242.7
347	340.	0.184	0.1154	1.889e-003	239.2
348	341.	0.188	0.1179	1.865e-003	241.3
349	342.	0.188	0.1179	1.86e-003	240.6
350	343.	0.184	0.1154	1.873e-003	237.1
351	344.	0.184	0.1154	1.867e-003	236.4
352	345.	0.184	0.1154	1.862e-003	235.7
353	346.	0.184	0.1154	1.857e-003	235.1
354	347.	0.179	0.1123	1.875e-003	230.9
355	348.	0.179	0.1123	1.869e-003	230.3
356	349.	0.184	0.1154	1.841e-003	233.
357	350.	0.179	0.1123	1.859e-003	228.9
358	351.	0.179	0.1123	1.853e-003	228.3
359	352.	0.179	0.1123	1.848e-003	227.6
360	353.	0.179	0.1123	1.843e-003	227.
361	354.	0.179	0.1123	1.838e-003	226.4
362	355.	0.174	0.1092	1.856e-003	222.3
363	356.	0.179	0.1123	1.827e-003	225.1
364	357.	0.174	0.1092	1.846e-003	221.
365	358.	0.174	0.1092	1.841e-003	220.4
366	359.	0.174	0.1092	1.836e-003	219.8
367	360.	0.174	0.1092	1.831e-003	219.2
368	361.	0.17	0.1066	1.845e-003	215.8
369	362.	0.174	0.1092	1.82e-003	218.
370	363.	0.174	0.1092	1.815e-003	217.4
371	364.	0.17	0.1066	1.829e-003	214.
372	365.	0.17	0.1066	1.824e-003	213.4
373	366.	0.17	0.1066	1.819e-003	212.8
374	367.	0.17	0.1066	1.814e-003	212.2
375	368.	0.17	0.1066	1.81e-003	211.7
376	369.	0.17	0.1066	1.805e-003	211.1
377	370.	0.17	0.1066	1.8e-003	210.5
378	371.	0.17	0.1066	1.795e-003	210.
379	372.	0.17	0.1066	1.79e-003	209.4
380	373.	0.165	0.1035	1.809e-003	205.4
381	374.	0.165	0.1035	1.804e-003	204.8
382	375.	0.165	0.1035	1.799e-003	204.3
383	376.	0.165	0.1035	1.795e-003	203.8

384	377.	0.17	0.1066	1.766e-003	206.6
385	378.	0.161	0.101	1.804e-003	199.9
386	379.	0.161	0.101	1.8e-003	199.4
387	380.	0.17	0.1066	1.752e-003	205.
388	381.	0.165	0.1035	1.771e-003	201.1
389	382.	0.161	0.101	1.786e-003	197.8
390	383.	0.165	0.1035	1.762e-003	200.
391	384.	0.165	0.1035	1.757e-003	199.5
392	385.	0.161	0.101	1.772e-003	196.3
393	386.	0.165	0.1035	1.748e-003	198.5
394	387.	0.161	0.101	1.763e-003	195.3
395	388.	0.165	0.1035	1.739e-003	197.5
396	389.	0.161	0.101	1.753e-003	194.3
397	390.	0.156	9.787e-002	1.773e-003	190.3
398	391.	0.156	9.787e-002	1.768e-003	189.8
399	392.	0.156	9.787e-002	1.764e-003	189.3
400	393.	0.161	0.101	1.736e-003	192.3
401	394.	0.156	9.787e-002	1.755e-003	188.4
402	395.	0.156	9.787e-002	1.751e-003	187.9
403	396.	0.156	9.787e-002	1.746e-003	187.4
404	397.	0.151	9.473e-002	1.766e-003	183.5
405	398.	0.156	9.787e-002	1.737e-003	186.5
406	399.	0.156	9.787e-002	1.733e-003	186.
407	400.	0.156	9.787e-002	1.729e-003	185.6
408	401.	0.156	9.787e-002	1.724e-003	185.1
409	402.	0.156	9.787e-002	1.72e-003	184.6
410	403.	0.151	9.473e-002	1.74e-003	180.8
411	404.	0.151	9.473e-002	1.736e-003	180.3
412	405.	0.151	9.473e-002	1.731e-003	179.9
413	406.	0.151	9.473e-002	1.727e-003	179.4
414	407.	0.151	9.473e-002	1.723e-003	179.
415	408.	0.151	9.473e-002	1.719e-003	178.6
416	409.	0.151	9.473e-002	1.714e-003	178.1
417	410.	0.156	9.787e-002	1.687e-003	181.
418	411.	0.151	9.473e-002	1.706e-003	177.3
419	412.	0.151	9.473e-002	1.702e-003	176.8
420	413.	0.151	9.473e-002	1.698e-003	176.4
421	414.	0.151	9.473e-002	1.694e-003	176.
422	415.	0.147	9.222e-002	1.709e-003	172.8
423	416.	0.147	9.222e-002	1.705e-003	172.4
424	417.	0.151	9.473e-002	1.681e-003	174.7
425	418.	0.147	9.222e-002	1.697e-003	171.6
426	419.	0.142	8.908e-002	1.717e-003	167.8
427	420.	0.147	9.222e-002	1.688e-003	170.8
428	421.	0.147	9.222e-002	1.684e-003	170.4
429	422.	0.147	9.222e-002	1.68e-003	170.
430	423.	0.147	9.222e-002	1.677e-003	169.6
431	424.	0.147	9.222e-002	1.673e-003	169.2
432	425.	0.147	9.222e-002	1.669e-003	168.8
433	426.	0.147	9.222e-002	1.665e-003	168.4
434	427.	0.142	8.908e-002	1.685e-003	164.6
435	428.	0.147	9.222e-002	1.657e-003	167.6
436	429.	0.147	9.222e-002	1.653e-003	167.2
437	430.	0.142	8.908e-002	1.673e-003	163.5
438	431.	0.151	9.473e-002	1.627e-003	169.
439	432.	0.147	9.222e-002	1.642e-003	166.
440	433.	0.151	9.473e-002	1.619e-003	168.3

441	434.	0.142	8.908e-002	1.658e-003	162.
442	435.	0.142	8.908e-002	1.654e-003	161.6
443	436.	0.147	9.222e-002	1.627e-003	164.5
444	437.	0.142	8.908e-002	1.646e-003	160.9
445	438.	0.138	8.657e-002	1.662e-003	157.8
446	439.	0.147	9.222e-002	1.615e-003	163.4
447	440.	0.142	8.908e-002	1.635e-003	159.8
448	441.	0.142	8.908e-002	1.631e-003	159.4
449	442.	0.142	8.908e-002	1.628e-003	159.
450	443.	0.142	8.908e-002	1.624e-003	158.7
451	444.	0.142	8.908e-002	1.62e-003	158.3
452	445.	0.142	8.908e-002	1.617e-003	158.
453	446.	0.142	8.908e-002	1.613e-003	157.6
454	447.	0.142	8.908e-002	1.61e-003	157.3
455	448.	0.142	8.908e-002	1.606e-003	156.9
456	449.	0.138	8.657e-002	1.621e-003	154.
457	450.	0.138	8.657e-002	1.618e-003	153.6
458	451.	0.142	8.908e-002	1.595e-003	155.9
459	452.	0.138	8.657e-002	1.611e-003	152.9
460	453.	0.138	8.657e-002	1.607e-003	152.6
461	454.	0.138	8.657e-002	1.603e-003	152.3
462	455.	0.138	8.657e-002	1.6e-003	151.9
463	456.	0.138	8.657e-002	1.596e-003	151.6
464	457.	0.138	8.657e-002	1.593e-003	151.3
465	458.	0.138	8.657e-002	1.589e-003	150.9
466	459.	0.138	8.657e-002	1.586e-003	150.6
467	460.	0.138	8.657e-002	1.583e-003	150.3
468	461.	0.138	8.657e-002	1.579e-003	149.9
469	462.	0.138	8.657e-002	1.576e-003	149.6
470	463.	0.133	8.344e-002	1.596e-003	146.1
471	464.	0.138	8.657e-002	1.569e-003	149.
472	465.	0.133	8.344e-002	1.589e-003	145.4
473	466.	0.133	8.344e-002	1.586e-003	145.1
474	467.	0.133	8.344e-002	1.582e-003	144.8
475	468.	0.133	8.344e-002	1.579e-003	144.5
476	469.	0.133	8.344e-002	1.576e-003	144.2
477	470.	0.133	8.344e-002	1.572e-003	143.9
478	471.	0.128	8.03e-002	1.593e-003	140.3
479	472.	0.133	8.344e-002	1.566e-003	143.3
480	473.	0.133	8.344e-002	1.562e-003	143.
481	474.	0.133	8.344e-002	1.559e-003	142.7
482	475.	0.133	8.344e-002	1.556e-003	142.4
483	476.	0.133	8.344e-002	1.552e-003	142.1
484	477.	0.133	8.344e-002	1.549e-003	141.8
485	478.	0.133	8.344e-002	1.546e-003	141.5
486	479.	0.128	8.03e-002	1.566e-003	138.
487	480.	0.128	8.03e-002	1.563e-003	137.7
488	481.	0.124	7.779e-002	1.58e-003	134.8
489	482.	0.124	7.779e-002	1.576e-003	134.5
490	483.	0.128	8.03e-002	1.553e-003	136.8
491	484.	0.128	8.03e-002	1.55e-003	136.5
492	485.	0.128	8.03e-002	1.547e-003	136.3
493	486.	0.128	8.03e-002	1.544e-003	136.
494	487.	0.128	8.03e-002	1.541e-003	135.7
495	488.	0.128	8.03e-002	1.538e-003	135.4
496	489.	0.128	8.03e-002	1.534e-003	135.1
497	490.	0.128	8.03e-002	1.531e-003	134.9

498	491.	0.124	7.779e-002	1.547e-003	132.
499	492.	0.128	8.03e-002	1.525e-003	134.3
500	493.	0.128	8.03e-002	1.522e-003	134.
501	494.	0.124	7.779e-002	1.538e-003	131.2
502	495.	0.128	8.03e-002	1.516e-003	133.5
503	496.	0.128	8.03e-002	1.513e-003	133.2
504	497.	0.124	7.779e-002	1.529e-003	130.4
505	498.	0.124	7.779e-002	1.526e-003	130.2
506	499.	0.124	7.779e-002	1.523e-003	129.9
507	500.	0.124	7.779e-002	1.52e-003	129.7
508	501.	0.124	7.779e-002	1.517e-003	129.4
509	502.	0.124	7.779e-002	1.514e-003	129.1
510	503.	0.124	7.779e-002	1.511e-003	128.9
511	504.	0.124	7.779e-002	1.508e-003	128.6
512	505.	0.124	7.779e-002	1.505e-003	128.4
513	506.	0.124	7.779e-002	1.502e-003	128.1
514	507.	0.124	7.779e-002	1.499e-003	127.9
515	508.	0.124	7.779e-002	1.496e-003	127.6
516	509.	0.124	7.779e-002	1.493e-003	127.4
517	510.	0.124	7.779e-002	1.49e-003	127.1
518	511.	0.124	7.779e-002	1.487e-003	126.9
519	512.	0.124	7.779e-002	1.484e-003	126.6
520	513.	0.124	7.779e-002	1.481e-003	126.4
521	514.	0.119	7.465e-002	1.502e-003	123.
522	515.	0.119	7.465e-002	1.499e-003	122.7
523	516.	0.119	7.465e-002	1.496e-003	122.5
524	517.	0.119	7.465e-002	1.493e-003	122.3
525	518.	0.119	7.465e-002	1.49e-003	122.
526	519.	0.119	7.465e-002	1.488e-003	121.8
527	520.	0.119	7.465e-002	1.485e-003	121.6
528	521.	0.119	7.465e-002	1.482e-003	121.3
529	522.	0.124	7.779e-002	1.456e-003	124.2
530	523.	0.115	7.215e-002	1.496e-003	118.3
531	524.	0.119	7.465e-002	1.473e-003	120.6
532	525.	0.115	7.215e-002	1.49e-003	117.9
533	526.	0.119	7.465e-002	1.468e-003	120.2
534	527.	0.119	7.465e-002	1.465e-003	120.
535	528.	0.119	7.465e-002	1.462e-003	119.7
536	529.	0.119	7.465e-002	1.459e-003	119.5
537	530.	0.119	7.465e-002	1.457e-003	119.3
538	531.	0.115	7.215e-002	1.473e-003	116.6
539	532.	0.115	7.215e-002	1.47e-003	116.3
540	533.	0.115	7.215e-002	1.468e-003	116.1
541	534.	0.115	7.215e-002	1.465e-003	115.9
542	535.	0.119	7.465e-002	1.443e-003	118.2
543	536.	0.115	7.215e-002	1.459e-003	115.5
544	537.	0.115	7.215e-002	1.457e-003	115.3
545	538.	0.115	7.215e-002	1.454e-003	115.
546	539.	0.115	7.215e-002	1.451e-003	114.8
547	540.	0.115	7.215e-002	1.449e-003	114.6
548	541.	0.115	7.215e-002	1.446e-003	114.4
549	542.	0.115	7.215e-002	1.443e-003	114.2
550	543.	0.115	7.215e-002	1.441e-003	114.
551	544.	0.115	7.215e-002	1.438e-003	113.8
552	545.	0.115	7.215e-002	1.435e-003	113.6
553	546.	0.115	7.215e-002	1.433e-003	113.4
554	547.	0.11	6.901e-002	1.454e-003	110.1

555	548.	0.115	7.215e-002	1.427e-003	112.9
556	549.	0.115	7.215e-002	1.425e-003	112.7
557	550.	0.115	7.215e-002	1.422e-003	112.5
558	551.	0.11	6.901e-002	1.444e-003	109.3
559	552.	0.11	6.901e-002	1.441e-003	109.1
560	553.	0.115	7.215e-002	1.414e-003	111.9
561	554.	0.11	6.901e-002	1.436e-003	108.7
562	555.	0.115	7.215e-002	1.409e-003	111.5
563	556.	0.11	6.901e-002	1.431e-003	108.3
564	557.	0.11	6.901e-002	1.428e-003	108.1
565	558.	0.11	6.901e-002	1.425e-003	107.9
566	559.	0.11	6.901e-002	1.423e-003	107.7
567	560.	0.11	6.901e-002	1.42e-003	107.5
568	561.	0.11	6.901e-002	1.418e-003	107.3
569	562.	0.11	6.901e-002	1.415e-003	107.1
570	563.	0.11	6.901e-002	1.413e-003	106.9
571	564.	0.11	6.901e-002	1.41e-003	106.7
572	565.	0.11	6.901e-002	1.408e-003	106.6
573	566.	0.11	6.901e-002	1.405e-003	106.4
574	567.	0.11	6.901e-002	1.403e-003	106.2
575	568.	0.11	6.901e-002	1.4e-003	106.
576	569.	0.11	6.901e-002	1.398e-003	105.8
577	570.	0.11	6.901e-002	1.395e-003	105.6
578	571.	0.105	6.587e-002	1.417e-003	102.4
579	572.	0.11	6.901e-002	1.391e-003	105.3
580	573.	0.105	6.587e-002	1.412e-003	102.
581	574.	0.105	6.587e-002	1.41e-003	101.9
582	575.	0.11	6.901e-002	1.383e-003	104.7
583	576.	0.11	6.901e-002	1.381e-003	104.5
584	577.	0.105	6.587e-002	1.403e-003	101.3
585	578.	0.105	6.587e-002	1.4e-003	101.2

Arithmetic Means:

Hydraulic Conductivity	2.525e-003 cm/sec
Transmissivity	19.95 m2/day

Geometric Means:

Hydraulic Conductivity	2.287e-003 cm/sec
Transmissivity	18.07 m2/day

Sensitivity Analysis:

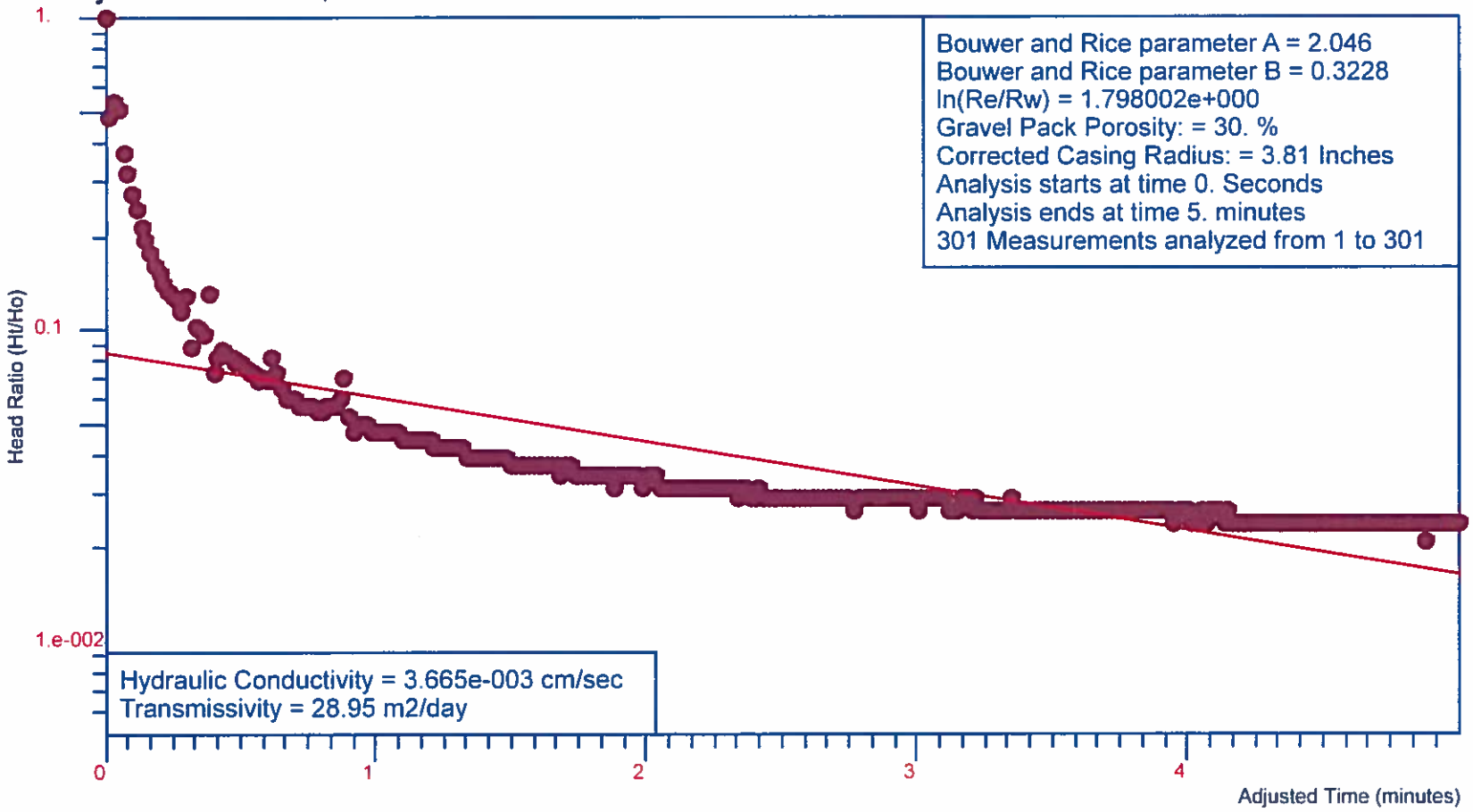
Hydraulic Conductivity	2.906e-003 cm/sec
Transmissivity	22.96 m2/day

Hydraulic Conductivity Test 1 May 4, 2017

Bouwer and Rice Graph

Teledyne West Allis, WI

TD-MW02



Ho is 1.76 feet at 0. Seconds

Client:: U.S. EPA

Analysis by Starpoint Software

36	35.	0.124	7.045e-002	2.35e-002	2159
37	36.	0.12	6.818e-002	2.313e-002	2057
38	37.	0.143	8.125e-002	2.104e-002	2229
39	38.	0.129	7.33e-002	2.132e-002	2038
40	39.	0.115	6.534e-002	2.169e-002	1848
41	40.	0.106	6.023e-002	2.178e-002	1711
42	41.	0.106	6.023e-002	2.125e-002	1669
43	42.	0.106	6.023e-002	2.074e-002	1629
44	43.	0.101	5.739e-002	2.061e-002	1542
45	44.	0.101	5.739e-002	2.014e-002	1507
46	45.	0.101	5.739e-002	1.969e-002	1474
47	46.	0.101	5.739e-002	1.926e-002	1442
48	47.	9.7e-002	5.511e-002	1.912e-002	1374
49	48.	9.7e-002	5.511e-002	1.872e-002	1346
50	49.	0.101	5.739e-002	1.809e-002	1354
51	50.	0.101	5.739e-002	1.772e-002	1326
52	51.	0.101	5.739e-002	1.738e-002	1300
53	52.	0.106	6.023e-002	1.675e-002	1316
54	53.	0.124	7.045e-002	1.552e-002	1426
55	54.	9.2e-002	5.227e-002	1.695e-002	1155
56	55.	8.3e-002	4.716e-002	1.722e-002	1059
57	56.	8.8e-002	5.e-002	1.659e-002	1082
58	57.	8.8e-002	5.e-002	1.63e-002	1063
59	58.	8.8e-002	5.e-002	1.602e-002	1044
60	59.	8.3e-002	4.716e-002	1.605e-002	987.2
61	60.	8.3e-002	4.716e-002	1.578e-002	970.8
62	61.	8.3e-002	4.716e-002	1.553e-002	954.8
63	62.	8.3e-002	4.716e-002	1.527e-002	939.4
64	63.	8.3e-002	4.716e-002	1.503e-002	924.5
65	64.	8.3e-002	4.716e-002	1.48e-002	910.1
66	65.	8.3e-002	4.716e-002	1.457e-002	896.1
67	66.	7.8e-002	4.432e-002	1.464e-002	846.2
68	67.	7.8e-002	4.432e-002	1.442e-002	833.6
69	68.	7.8e-002	4.432e-002	1.421e-002	821.3
70	69.	7.8e-002	4.432e-002	1.4e-002	809.4
71	70.	7.8e-002	4.432e-002	1.38e-002	797.9
72	71.	7.8e-002	4.432e-002	1.361e-002	786.6
73	72.	7.8e-002	4.432e-002	1.342e-002	775.7
74	73.	7.4e-002	4.205e-002	1.346e-002	738.1
75	74.	7.4e-002	4.205e-002	1.328e-002	728.1
76	75.	7.4e-002	4.205e-002	1.31e-002	718.4
77	76.	7.4e-002	4.205e-002	1.293e-002	709.
78	77.	7.4e-002	4.205e-002	1.276e-002	699.8
79	78.	7.4e-002	4.205e-002	1.26e-002	690.8
80	79.	7.4e-002	4.205e-002	1.244e-002	682.
81	80.	6.9e-002	3.92e-002	1.255e-002	641.9
82	81.	6.9e-002	3.92e-002	1.24e-002	633.9
83	82.	6.9e-002	3.92e-002	1.225e-002	626.2
84	83.	6.9e-002	3.92e-002	1.21e-002	618.7
85	84.	6.9e-002	3.92e-002	1.196e-002	611.3
86	85.	6.9e-002	3.92e-002	1.182e-002	604.1
87	86.	6.9e-002	3.92e-002	1.168e-002	597.1
88	87.	6.9e-002	3.92e-002	1.154e-002	590.2
89	88.	6.9e-002	3.92e-002	1.141e-002	583.5
90	89.	6.9e-002	3.92e-002	1.128e-002	577.
91	90.	6.5e-002	3.693e-002	1.136e-002	547.4
92	91.	6.5e-002	3.693e-002	1.124e-002	541.4

93	92.	6.5e-002	3.693e-002	1.112e-002	535.5
94	93.	6.5e-002	3.693e-002	1.1e-002	529.7
95	94.	6.5e-002	3.693e-002	1.088e-002	524.1
96	95.	6.5e-002	3.693e-002	1.077e-002	518.6
97	96.	6.5e-002	3.693e-002	1.065e-002	513.2
98	97.	6.5e-002	3.693e-002	1.054e-002	507.9
99	98.	6.5e-002	3.693e-002	1.044e-002	502.7
100	99.	6.5e-002	3.693e-002	1.033e-002	497.6
101	100.	6.5e-002	3.693e-002	1.023e-002	492.6
102	101.	6.e-002	3.409e-002	1.037e-002	461.2
103	102.	6.5e-002	3.693e-002	1.003e-002	483.
104	103.	6.5e-002	3.693e-002	9.931e-003	478.3
105	104.	6.e-002	3.409e-002	1.007e-002	447.9
106	105.	6.e-002	3.409e-002	9.978e-003	443.6
107	106.	6.e-002	3.409e-002	9.884e-003	439.4
108	107.	6.e-002	3.409e-002	9.791e-003	435.3
109	108.	6.e-002	3.409e-002	9.701e-003	431.3
110	109.	6.e-002	3.409e-002	9.612e-003	427.3
111	110.	6.e-002	3.409e-002	9.524e-003	423.4
112	111.	6.e-002	3.409e-002	9.438e-003	419.6
113	112.	6.e-002	3.409e-002	9.354e-003	415.9
114	113.	5.5e-002	3.125e-002	9.51e-003	387.6
115	114.	6.e-002	3.409e-002	9.19e-003	408.6
116	115.	6.e-002	3.409e-002	9.11e-003	405.
117	116.	6.e-002	3.409e-002	9.032e-003	401.5
118	117.	6.e-002	3.409e-002	8.954e-003	398.1
119	118.	6.e-002	3.409e-002	8.879e-003	394.7
120	119.	5.5e-002	3.125e-002	9.031e-003	368.
121	120.	6.e-002	3.409e-002	8.731e-003	388.2
122	121.	6.e-002	3.409e-002	8.658e-003	384.9
123	122.	6.e-002	3.409e-002	8.587e-003	381.8
124	123.	5.5e-002	3.125e-002	8.737e-003	356.1
125	124.	5.5e-002	3.125e-002	8.666e-003	353.2
126	125.	5.5e-002	3.125e-002	8.597e-003	350.4
127	126.	5.5e-002	3.125e-002	8.529e-003	347.6
128	127.	5.5e-002	3.125e-002	8.462e-003	344.9
129	128.	5.5e-002	3.125e-002	8.396e-003	342.2
130	129.	5.5e-002	3.125e-002	8.331e-003	339.5
131	130.	5.5e-002	3.125e-002	8.266e-003	336.9
132	131.	5.5e-002	3.125e-002	8.203e-003	334.3
133	132.	5.5e-002	3.125e-002	8.141e-003	331.8
134	133.	5.5e-002	3.125e-002	8.08e-003	329.3
135	134.	5.5e-002	3.125e-002	8.02e-003	326.8
136	135.	5.5e-002	3.125e-002	7.96e-003	324.4
137	136.	5.5e-002	3.125e-002	7.902e-003	322.
138	137.	5.5e-002	3.125e-002	7.844e-003	319.7
139	138.	5.5e-002	3.125e-002	7.787e-003	317.4
140	139.	5.5e-002	3.125e-002	7.731e-003	315.1
141	140.	5.1e-002	2.898e-002	7.843e-003	296.4
142	141.	5.5e-002	3.125e-002	7.622e-003	310.6
143	142.	5.5e-002	3.125e-002	7.568e-003	308.4
144	143.	5.1e-002	2.898e-002	7.679e-003	290.2
145	144.	5.1e-002	2.898e-002	7.625e-003	288.2
146	145.	5.5e-002	3.125e-002	7.411e-003	302.
147	146.	5.1e-002	2.898e-002	7.521e-003	284.2
148	147.	5.1e-002	2.898e-002	7.47e-003	282.3
149	148.	5.1e-002	2.898e-002	7.419e-003	280.4

150	149.	5.1e-002	2.898e-002	7.37e-003	278.5
151	150.	5.1e-002	2.898e-002	7.32e-003	276.6
152	151.	5.1e-002	2.898e-002	7.272e-003	274.8
153	152.	5.1e-002	2.898e-002	7.224e-003	273.
154	153.	5.1e-002	2.898e-002	7.177e-003	271.2
155	154.	5.1e-002	2.898e-002	7.13e-003	269.5
156	155.	5.1e-002	2.898e-002	7.084e-003	267.7
157	156.	5.1e-002	2.898e-002	7.039e-003	266.
158	157.	5.1e-002	2.898e-002	6.994e-003	264.3
159	158.	5.1e-002	2.898e-002	6.95e-003	262.6
160	159.	5.1e-002	2.898e-002	6.906e-003	261.
161	160.	5.1e-002	2.898e-002	6.863e-003	259.4
162	161.	5.1e-002	2.898e-002	6.82e-003	257.7
163	162.	5.1e-002	2.898e-002	6.778e-003	256.1
164	163.	5.1e-002	2.898e-002	6.737e-003	254.6
165	164.	5.1e-002	2.898e-002	6.695e-003	253.
166	165.	5.1e-002	2.898e-002	6.655e-003	251.5
167	166.	4.6e-002	2.614e-002	6.808e-003	232.
168	167.	5.1e-002	2.898e-002	6.575e-003	248.5
169	168.	5.1e-002	2.898e-002	6.536e-003	247.
170	169.	5.1e-002	2.898e-002	6.497e-003	245.5
171	170.	5.1e-002	2.898e-002	6.459e-003	244.1
172	171.	5.1e-002	2.898e-002	6.421e-003	242.7
173	172.	5.1e-002	2.898e-002	6.384e-003	241.3
174	173.	5.1e-002	2.898e-002	6.347e-003	239.9
175	174.	5.1e-002	2.898e-002	6.311e-003	238.5
176	175.	5.1e-002	2.898e-002	6.275e-003	237.1
177	176.	5.1e-002	2.898e-002	6.239e-003	235.8
178	177.	5.1e-002	2.898e-002	6.204e-003	234.4
179	178.	5.1e-002	2.898e-002	6.169e-003	233.1
180	179.	5.1e-002	2.898e-002	6.134e-003	231.8
181	180.	4.6e-002	2.614e-002	6.278e-003	214.
182	181.	5.1e-002	2.898e-002	6.067e-003	229.3
183	182.	5.1e-002	2.898e-002	6.033e-003	228.
184	183.	5.1e-002	2.898e-002	6.e-003	226.8
185	184.	5.1e-002	2.898e-002	5.968e-003	225.5
186	185.	5.1e-002	2.898e-002	5.935e-003	224.3
187	186.	5.1e-002	2.898e-002	5.904e-003	223.1
188	187.	4.6e-002	2.614e-002	6.043e-003	206.
189	188.	4.6e-002	2.614e-002	6.011e-003	204.9
190	189.	4.6e-002	2.614e-002	5.979e-003	203.8
191	190.	5.1e-002	2.898e-002	5.779e-003	218.4
192	191.	5.1e-002	2.898e-002	5.749e-003	217.3
193	192.	4.6e-002	2.614e-002	5.886e-003	200.6
194	193.	5.1e-002	2.898e-002	5.689e-003	215.
195	194.	4.6e-002	2.614e-002	5.825e-003	198.5
196	195.	4.6e-002	2.614e-002	5.795e-003	197.5
197	196.	4.6e-002	2.614e-002	5.766e-003	196.5
198	197.	4.6e-002	2.614e-002	5.736e-003	195.5
199	198.	4.6e-002	2.614e-002	5.707e-003	194.5
200	199.	4.6e-002	2.614e-002	5.679e-003	193.6
201	200.	4.6e-002	2.614e-002	5.65e-003	192.6
202	201.	5.1e-002	2.898e-002	5.463e-003	206.4
203	202.	4.6e-002	2.614e-002	5.594e-003	190.7
204	203.	4.6e-002	2.614e-002	5.567e-003	189.7
205	204.	4.6e-002	2.614e-002	5.539e-003	188.8
206	205.	4.6e-002	2.614e-002	5.512e-003	187.9

207	206.	4.6e-002	2.614e-002	5.486e-003	187.
208	207.	4.6e-002	2.614e-002	5.459e-003	186.1
209	208.	4.6e-002	2.614e-002	5.433e-003	185.2
210	209.	4.6e-002	2.614e-002	5.407e-003	184.3
211	210.	4.6e-002	2.614e-002	5.381e-003	183.4
212	211.	4.6e-002	2.614e-002	5.356e-003	182.6
213	212.	4.6e-002	2.614e-002	5.33e-003	181.7
214	213.	4.6e-002	2.614e-002	5.305e-003	180.8
215	214.	4.6e-002	2.614e-002	5.281e-003	180.
216	215.	4.6e-002	2.614e-002	5.256e-003	179.2
217	216.	4.6e-002	2.614e-002	5.232e-003	178.3
218	217.	4.6e-002	2.614e-002	5.208e-003	177.5
219	218.	4.6e-002	2.614e-002	5.184e-003	176.7
220	219.	4.6e-002	2.614e-002	5.16e-003	175.9
221	220.	4.6e-002	2.614e-002	5.137e-003	175.1
222	221.	4.6e-002	2.614e-002	5.113e-003	174.3
223	222.	4.6e-002	2.614e-002	5.09e-003	173.5
224	223.	4.6e-002	2.614e-002	5.068e-003	172.7
225	224.	4.6e-002	2.614e-002	5.045e-003	172.
226	225.	4.6e-002	2.614e-002	5.022e-003	171.2
227	226.	4.6e-002	2.614e-002	5.e-003	170.4
228	227.	4.6e-002	2.614e-002	4.978e-003	169.7
229	228.	4.6e-002	2.614e-002	4.956e-003	168.9
230	229.	4.6e-002	2.614e-002	4.935e-003	168.2
231	230.	4.6e-002	2.614e-002	4.913e-003	167.5
232	231.	4.6e-002	2.614e-002	4.892e-003	166.7
233	232.	4.6e-002	2.614e-002	4.871e-003	166.
234	233.	4.6e-002	2.614e-002	4.85e-003	165.3
235	234.	4.6e-002	2.614e-002	4.829e-003	164.6
236	235.	4.6e-002	2.614e-002	4.809e-003	163.9
237	236.	4.6e-002	2.614e-002	4.788e-003	163.2
238	237.	4.2e-002	2.386e-002	4.887e-003	152.1
239	238.	4.6e-002	2.614e-002	4.748e-003	161.8
240	239.	4.6e-002	2.614e-002	4.728e-003	161.2
241	240.	4.6e-002	2.614e-002	4.709e-003	160.5
242	241.	4.2e-002	2.386e-002	4.806e-003	149.6
243	242.	4.2e-002	2.386e-002	4.786e-003	149.
244	243.	4.6e-002	2.614e-002	4.65e-003	158.5
245	244.	4.2e-002	2.386e-002	4.747e-003	147.7
246	245.	4.6e-002	2.614e-002	4.612e-003	157.2
247	246.	4.6e-002	2.614e-002	4.594e-003	156.6
248	247.	4.6e-002	2.614e-002	4.575e-003	155.9
249	248.	4.2e-002	2.386e-002	4.67e-003	145.4
250	249.	4.6e-002	2.614e-002	4.538e-003	154.7
251	250.	4.2e-002	2.386e-002	4.633e-003	144.2
252	251.	4.2e-002	2.386e-002	4.615e-003	143.6
253	252.	4.2e-002	2.386e-002	4.596e-003	143.
254	253.	4.2e-002	2.386e-002	4.578e-003	142.5
255	254.	4.2e-002	2.386e-002	4.56e-003	141.9
256	255.	4.2e-002	2.386e-002	4.542e-003	141.4
257	256.	4.2e-002	2.386e-002	4.524e-003	140.8
258	257.	4.2e-002	2.386e-002	4.507e-003	140.3
259	258.	4.2e-002	2.386e-002	4.489e-003	139.7
260	259.	4.2e-002	2.386e-002	4.472e-003	139.2
261	260.	4.2e-002	2.386e-002	4.455e-003	138.6
262	261.	4.2e-002	2.386e-002	4.438e-003	138.1
263	262.	4.2e-002	2.386e-002	4.421e-003	137.6

264	263.	4.2e-002	2.386e-002	4.404e-003	137.1
265	264.	4.2e-002	2.386e-002	4.387e-003	136.5
266	265.	4.2e-002	2.386e-002	4.371e-003	136.
267	266.	4.2e-002	2.386e-002	4.354e-003	135.5
268	267.	4.2e-002	2.386e-002	4.338e-003	135.
269	268.	4.2e-002	2.386e-002	4.322e-003	134.5
270	269.	4.2e-002	2.386e-002	4.306e-003	134.
271	270.	4.2e-002	2.386e-002	4.29e-003	133.5
272	271.	4.2e-002	2.386e-002	4.274e-003	133.
273	272.	4.2e-002	2.386e-002	4.258e-003	132.5
274	273.	4.2e-002	2.386e-002	4.243e-003	132.
275	274.	4.2e-002	2.386e-002	4.227e-003	131.6
276	275.	4.2e-002	2.386e-002	4.212e-003	131.1
277	276.	4.2e-002	2.386e-002	4.197e-003	130.6
278	277.	4.2e-002	2.386e-002	4.181e-003	130.1
279	278.	4.2e-002	2.386e-002	4.166e-003	129.7
280	279.	4.2e-002	2.386e-002	4.151e-003	129.2
281	280.	4.2e-002	2.386e-002	4.137e-003	128.7
282	281.	4.2e-002	2.386e-002	4.122e-003	128.3
283	282.	4.2e-002	2.386e-002	4.107e-003	127.8
284	283.	4.2e-002	2.386e-002	4.093e-003	127.4
285	284.	4.2e-002	2.386e-002	4.078e-003	126.9
286	285.	4.2e-002	2.386e-002	4.064e-003	126.5
287	286.	4.2e-002	2.386e-002	4.05e-003	126.
288	287.	4.2e-002	2.386e-002	4.036e-003	125.6
289	288.	4.2e-002	2.386e-002	4.022e-003	125.2
290	289.	4.2e-002	2.386e-002	4.008e-003	124.7
291	290.	4.2e-002	2.386e-002	3.994e-003	124.3
292	291.	4.2e-002	2.386e-002	3.98e-003	123.9
293	292.	4.2e-002	2.386e-002	3.967e-003	123.4
294	293.	3.7e-002	2.102e-002	4.087e-003	112.1
295	294.	4.2e-002	2.386e-002	3.94e-003	122.6
296	295.	4.2e-002	2.386e-002	3.926e-003	122.2
297	296.	4.2e-002	2.386e-002	3.913e-003	121.8
298	297.	4.2e-002	2.386e-002	3.9e-003	121.4
299	298.	4.2e-002	2.386e-002	3.887e-003	121.
300	299.	4.2e-002	2.386e-002	3.874e-003	120.6
301	300.	4.2e-002	2.386e-002	3.861e-003	120.2

Arithmetic Means:

Hydraulic Conductivity	1.289e-002 cm/sec
Transmissivity	101.8 m2/day

Geometric Means:

Hydraulic Conductivity	8.931e-003 cm/sec
Transmissivity	70.56 m2/day

Sensitivity Analysis:

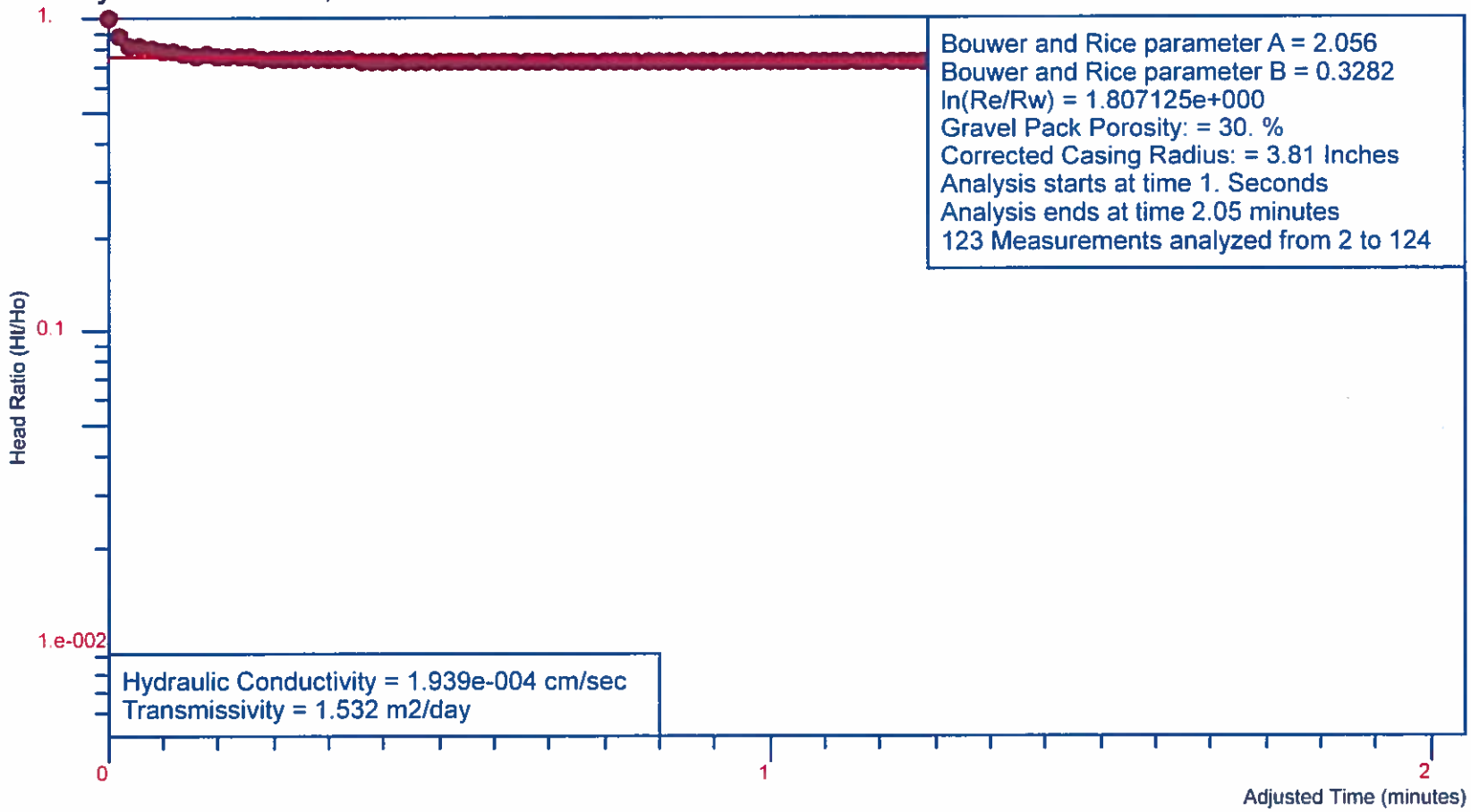
Hydraulic Conductivity	6.182e-002 cm/sec
Transmissivity	488.4 m2/day

Hydraulic Conductivity Test 1 May 4, 2017

Bouwer and Rice Graph

Teledyne West Allis, WI

TD-MW03



Client:: U.S. EPA

Analysis by Starpoint Software

Ho is 1.006 feet at 1. Seconds

37	35.	0.735	0.7306	2.71e-003	1468
38	36.	0.734	0.7296	2.646e-003	1432
39	37.	0.735	0.7306	2.563e-003	1389
40	38.	0.734	0.7296	2.507e-003	1356
41	39.	0.73	0.7256	2.485e-003	1337
42	40.	0.735	0.7306	2.371e-003	1285
43	41.	0.735	0.7306	2.313e-003	1253
44	42.	0.734	0.7296	2.268e-003	1227
45	43.	0.735	0.7306	2.205e-003	1195
46	44.	0.73	0.7256	2.202e-003	1185
47	45.	0.734	0.7296	2.117e-003	1145
48	46.	0.735	0.7306	2.062e-003	1117
49	47.	0.734	0.7296	2.027e-003	1097
50	48.	0.73	0.7256	2.019e-003	1086
51	49.	0.735	0.7306	1.935e-003	1049
52	50.	0.735	0.7306	1.897e-003	1028
53	51.	0.73	0.7256	1.9e-003	1023
54	52.	0.73	0.7256	1.863e-003	1003
55	53.	0.734	0.7296	1.797e-003	972.5
56	54.	0.73	0.7256	1.794e-003	965.7
57	55.	0.735	0.7306	1.724e-003	934.4
58	56.	0.73	0.7256	1.73e-003	931.3
59	57.	0.73	0.7256	1.7e-003	914.9
60	58.	0.734	0.7296	1.642e-003	888.7
61	59.	0.73	0.7256	1.642e-003	883.9
62	60.	0.735	0.7306	1.581e-003	856.5
63	61.	0.73	0.7256	1.589e-003	854.9
64	62.	0.735	0.7306	1.53e-003	828.9
65	63.	0.73	0.7256	1.538e-003	827.8
66	64.	0.734	0.7296	1.488e-003	805.4
67	65.	0.73	0.7256	1.491e-003	802.3
68	66.	0.735	0.7306	1.437e-003	778.6
69	67.	0.73	0.7256	1.446e-003	778.4
70	68.	0.73	0.7256	1.425e-003	766.9
71	69.	0.734	0.7296	1.38e-003	747.
72	70.	0.73	0.7256	1.384e-003	745.
73	71.	0.73	0.7256	1.365e-003	734.5
74	72.	0.735	0.7306	1.317e-003	713.7
75	73.	0.73	0.7256	1.327e-003	714.4
76	74.	0.73	0.7256	1.309e-003	704.7
77	75.	0.735	0.7306	1.264e-003	685.2
78	76.	0.73	0.7256	1.275e-003	686.2
79	77.	0.73	0.7256	1.258e-003	677.3
80	78.	0.734	0.7296	1.221e-003	660.8
81	79.	0.73	0.7256	1.227e-003	660.1
82	80.	0.73	0.7256	1.211e-003	651.9
83	81.	0.73	0.7256	1.196e-003	643.8
84	82.	0.735	0.7306	1.157e-003	626.7
85	83.	0.73	0.7256	1.167e-003	628.3
86	84.	0.73	0.7256	1.154e-003	620.8
87	85.	0.73	0.7256	1.14e-003	613.5
88	86.	0.73	0.7256	1.127e-003	606.4
89	87.	0.73	0.7256	1.114e-003	599.4
90	88.	0.734	0.7296	1.082e-003	585.7
91	89.	0.73	0.7256	1.089e-003	586.
92	90.	0.73	0.7256	1.077e-003	579.4
93	91.	0.73	0.7256	1.065e-003	573.1

94	92.	0.73	0.7256	1.053e-003	566.9
95	93.	0.735	0.7306	1.02e-003	552.6
96	94.	0.73	0.7256	1.031e-003	554.8
97	95.	0.73	0.7256	1.02e-003	549.
98	96.	0.73	0.7256	1.009e-003	543.2
99	97.	0.73	0.7256	9.99e-004	537.6
100	98.	0.73	0.7256	9.888e-004	532.1
101	99.	0.73	0.7256	9.788e-004	526.8
102	100.	0.735	0.7306	9.484e-004	513.9
103	101.	0.73	0.7256	9.594e-004	516.3
104	102.	0.73	0.7256	9.5e-004	511.3
105	103.	0.73	0.7256	9.408e-004	506.3
106	104.	0.73	0.7256	9.317e-004	501.4
107	105.	0.73	0.7256	9.228e-004	496.7
108	106.	0.73	0.7256	9.141e-004	492.
109	107.	0.734	0.7296	8.902e-004	481.7
110	108.	0.73	0.7256	8.972e-004	482.9
111	109.	0.73	0.7256	8.89e-004	478.4
112	110.	0.73	0.7256	8.809e-004	474.1
113	111.	0.73	0.7256	8.73e-004	469.8
114	112.	0.73	0.7256	8.652e-004	465.6
115	113.	0.73	0.7256	8.575e-004	461.5
116	114.	0.735	0.7306	8.319e-004	450.8
117	115.	0.725	0.7207	8.607e-004	460.
118	116.	0.735	0.7306	8.176e-004	443.
119	117.	0.73	0.7256	8.282e-004	445.7
120	118.	0.73	0.7256	8.212e-004	442.
121	119.	0.73	0.7256	8.143e-004	438.2
122	120.	0.73	0.7256	8.075e-004	434.6
123	121.	0.73	0.7256	8.008e-004	431.
124	122.	0.73	0.7256	7.943e-004	427.5

Arithmetic Means:

Hydraulic Conductivity	3.23e-003 cm/sec
Transmissivity	25.52 m2/day

Geometric Means:

Hydraulic Conductivity	2.001e-003 cm/sec
Transmissivity	15.81 m2/day

Sensitivity Analysis:

Hydraulic Conductivity	1.256e-003 cm/sec
Transmissivity	9.92 m2/day

APPENDIX F
DATA VALIDATION REPORTS

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Site Name	Teledyne site, West Allis, Wisconsin		**TDD No.**	S05-0003-1612-004
Document Tracking No.	1698A			
Data Reviewer (signature and date)	Harry N. Ellis III 2 May 2017		**Technical Reviewer (signature and date)**	Jessica A. Vickers May 3, 2017
Laboratory Report No.	1704626		**Laboratory**	ALS Analytical/Holland, Michigan
Analyses	Volatile organic compounds (VOCs) by SW-846 Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by SW-846 Method 8270D, pesticides by SW-846 Method 8081A, polychlorinated biphenyls (PCBs) by SW-846 Method 8082, metals by SW-846 Methods 7471A and 6020A, and particle (grain) size by ASTM Method D422			
Samples and Matrix	31 Soil samples plus quality control (QC) samples listed below			
Field Duplicate Pairs	TDSB 28 (2-4)-041017/TDSB 28 (2-4) DUP-041017 and TDSB 24 (4-6)-041117/TDSB 24-(4-6) DUP-041117			
Field Blanks	Trip Blank			

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (January 2017) and the EPA *NFG for Inorganic Superfund Methods Data Review* (January 2017).

OVERALL EVALUATION

No results were rejected, but a number were qualified as summarized below.

Data completeness:

Within Criteria	Exceedance/Notes
Y	As is customary for geotechnical methods, the particle size results included no QC measures and were not evaluated in this report.

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
N	VOC method blank R209897 yielded a concentration below the reporting limit (RL) of the common laboratory contaminant methylene chloride; however, no qualifications were applied because the associated results were non-detect. Metals method blank 100690 yielded concentrations below the RLs of cadmium, chromium, and silver; however, no qualifications were applied because the associated results were greater than ten times the blank value. Metals method blank 100771 yielded a concentration below the RL of lead; however, no qualifications were applied because the associated results were greater than ten times the blank value.

Field blanks:

Within Criteria	Exceedance/Notes
N	The trip blank yielded a concentration below the reporting limit of toluene; therefore, the toluene results for TDSB 04 (6-8)-041117, TDSB 12 (6-8)-041017, TDSB 14 (4-6)-041017, TDSB 27 (4-6)-041017, and TDSB 29 (4-6)-041017 were raised to the RL and qualified as non-detect (flagged "U"). No further qualifications were applied because the associated results were greater than ten times the blank value or non-detect.

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
N	The VOC analyses of TDSB 04 (6-8)-041117, TDSB 10 (6-8)-041017, TDSB 27 (2-4)-041017, TDSB 27 (4-6)-041017, and TDSB 28 (4-6)-041017 yielded excessive recoveries of one or two of the four surrogates. Most detected VOC results for these samples were qualified as estimated, possibly biased high (flagged "J+"). The exceptions were ethylbenzene and xylenes in TDSB 10 (6-8)-041017, which were determined from a diluted analysis that yielded acceptable recoveries for all surrogates. Therefore, those results were not qualified. For TDSB 03 (8-10)-041117, TDSB 22 (4-6)-041117, TDSB 24 (4-6)-041117, and TDSB 24 (4-6) DUP-041117, both surrogates yielded slightly low recoveries in the PCB analysis; therefore, the associated non-detect results were qualified as estimated, possibly biased low (flagged "UJ").

MS/MSD:

Within Criteria	Exceedance/Notes
N	MS/MSD analyses performed on samples from other sites were not evaluated. The VOC MS/MSD performed on TDSB 21 (2-4)-041017 with the same "dilution factor" as the parent sample (second listed results) yielded low recoveries acetone and chlorobenzene. No qualification was required for chlorobenzene because the average recovery was within the acceptance limit. The acetone result for the parent sample was qualified as estimated, possibly biased low (flagged "J-"). In the metals MS/MSD analyses performed on TDSB 2 (6-8)-041117, recoveries and relative percent differences (RPDs) of barium and lead could not be determined because the unspiked samples contained more than four times the amount of the spikes. No qualifications were applied for these data gaps. Chromium yielded recoveries of 114 and 128 percent. The average recovery of 121 percent is within limits; therefore, no qualifications were applied for this minor irregularity. In the metals MS/MSD analyses performed on TDSB 04 (6-8)-041117, recoveries of barium and lead could not be determined because the unspiked samples contained more than four times the amount of the spikes. No qualifications were applied for these data gaps. Chromium recoveries were 228 and 299 percent, above the limits of 75 to 125 percent; therefore, the chromium result in the parent sample was qualified as estimated, possibly biased high (flagged "J+").

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	

Field duplicates:

Within Criteria	Exceedance/Notes
N	Most of the field duplicate results were within the QAPP limits of a 70 percent RPD or difference less than the RL for low-level results. For the TDSB 24 (4-6)-041117 pair, acenaphthene (79 percent), benzo(a)pyrene (difference greater than RL), fluorene (71 percent), and barium (116 percent) exceeded limits. For the TDSB 28 (2-4)-041017 pair, dibenz(a,h)anthracene (78 percent) and indeno(1,2,3-cd)pyrene (76 percent) exceeded limits. These irregularities may indicate some heterogeneities in the distribution of contaminants within the soil. The indicated results were qualified as estimated (flagged "J/UJ") for both samples of the duplicate pair.

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	All samples were analyzed for Method 6020A metals at 4-fold dilutions to minimize matrix interference. In addition, a number of samples were analyzed for mercury, pesticides, or VOCs at various dilutions (2- to 10-fold) for the same reasons. No qualifications were applied, but data users should note that the detection and reporting limits for analytes were raised accordingly. In addition, a few samples were analyzed at 10-fold dilutions for ethylbenzene and xylenes or for lead to bring the high concentrations of those analytes within calibration range. These efforts succeeded; therefore, no qualifications were applied.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Some results were less than their reporting limits. The laboratory correctly flagged these “J” to indicate that they are estimated.

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [specify]:

Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Site Name	Teledyne Site, West Allis, Wisconsin		**TDD No.**	S05-0003-1612-004
Document Tracking No.	1698B			
Data Reviewer (signature and date)	Harry N. Ellis III 2 May 2017		**Technical Reviewer (signature and date)**	Jessica A. Vickers May 3, 2017
Laboratory Report No.	1704816		**Laboratory**	ALS Analytical/Holland, Michigan
Analyses	Volatile organic compounds (VOCs) by SW-846 Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by SW-846 Method 8270D, pesticides by SW-846 Method 8081A, polychlorinated biphenyls (PCBs) by SW-846 Method 8082, metals by SW-846 Methods 7471A and 6020A, and particle size by ASTM Method D422			
Samples and Matrix	Five soil samples plus trip blank			
Field Duplicate Pairs	None			
Field Blanks	Trip Blank			

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (January 2017) and the EPA *NFG for Inorganic Superfund Methods Data Review* (January 2017).

OVERALL EVALUATION

No results were rejected, but a few were qualified as detailed below.

Data completeness:

Within Criteria	Exceedance/Notes
Y	As is customary for geotechnical methods, the particle size results included no QC measures and were not evaluated in this report.

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
N	Metals method blank 100819 yielded concentrations below the RLs of chromium and lead; however, no qualifications were applied because the associated results were greater than ten times the blank value.

Field blanks:

Within Criteria	Exceedance/Notes
Y	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
N	For TDSB 08 (4-6)-041217, both surrogates yielded slightly low recoveries in the PCB analysis; therefore, the associated non-detect results were qualified as estimated, possibly biased low (flagged "UJ"). For TDSB 01 (4-6)-041217, the first surrogate was slightly low in the pesticide analysis; therefore, the associated non-detect results were qualified as estimated, possibly biased low (flagged "UJ").

MS/MSD:

Within Criteria	Exceedance/Notes
N	MS/MSD analyses performed on samples from other sites were not evaluated. The VOC MS/MSD analyses performed on sample TDSB 06 (4-6)-041217 yielded excessive recoveries for 1,1-dichloroethane, 2-butanone, 2-hexanone, acetone, methyl tert-butyl ether, and tetrachloroethene. The detected result for acetone in the parent sample was qualified as estimated, possibly biased high (flagged "J+"). No further qualifications were applied because the associated results were non-detect. Recoveries for bromomethane were below the acceptance limits; therefore, the non-detect result for the parent sample was qualified as estimated, possibly biased low (flagged "UJ").

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	

Field duplicates:

Within Criteria	Exceedance/Notes
NA	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
N	For the VOC analysis, the recovery for methyl tert-butyl ether was above the acceptance limit; however, no qualifications were applied because the associated results were non-detect.

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	All samples were analyzed for Method 6020A metals at 4-fold dilutions to minimize matrix interference. In addition, sample TDSB 06 (4-6)-041217 was analyzed for pesticides at a 5-fold dilution for the same reason. These dilutions raised detection and reporting limits correspondingly.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Some results were less than their reporting limits. The laboratory correctly flagged these "J" to indicate that they are estimated.

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [specify]:

Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Site Name	Teledyne Site		**TDD No.**	S05-0003-1612-004
Document Tracking No.	1744A			
Data Reviewer (signature and date)	Harry N. Ellis III 23 May 2017		**Technical Reviewer (signature and date)**	Jessica A. Vickers May 31, 2017
Laboratory Report No.	17041370		**Laboratory**	ALS Laboratories/Holland, Michigan
Analyses	Volatile organic compounds (VOCs) by SW-846 Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by SW-846 Method 8270D, pesticides by SW-846 Method 8081A, polychlorinated biphenyls (PCBs) by SW-846 Method 8082, metals by SW-846 Methods 6020A and 7471B, and particle size by ASTM Method D-422			
Samples and Matrix	Seven soil samples plus QC samples below			
Field Duplicate Pairs	TDSB05 (8-10)-042417/TDSB05 (8-10)Dup-042417			
Field Blanks	Trip Blank			

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (January 2017) and the EPA *NFG for Inorganic Superfund Methods Data Review* (January 2017).

OVERALL EVALUATION

No results were rejected, but a number were qualified. All may be used as qualified.

Data completeness:

Within Criteria	Exceedance/Notes
Y	As is customary for geotechnical methods, the particle size results included no QC measures and were not evaluated in this report.

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
N	The medium-level VOC method blank yielded a low concentration of methylene chloride; however, no qualifications were applied because the analyte was not detected in any of the field samples. The metals method blank yielded a chromium concentration below its reporting limit. All field sample chromium concentrations were orders of magnitude higher; therefore, no qualifications were applied.

Field blanks:

Within Criteria	Exceedance/Notes
N	The trip blank yielded a concentration of toluene below the reporting limit. No qualifications were required because the toluene results were greater than ten times the blank value.

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
N	Sample TDSB05 (8-10)-042417 yielded a slightly excessive recovery for VOC surrogate 1,2-dichloroethane-d_4 (123 percent, versus laboratory limits of 70 to 120 percent). The positive VOC results for this sample were qualified as estimated, possibly biased high (flagged "J+").

MS/MSD:

Within Criteria	Exceedance/Notes
N	MS/MSD performed on samples from other sites were not evaluated. In the PAH MS/MSD analyses performed on sample TSDB17 (2-4)-042417, recoveries and relative percent differences (RPDs) could not be accurately calculated for fluorene because the parent sample results were greater than four times the spike concentrations. Recoveries were below the acceptance limits for anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene. No qualifications were applied for benzo(k)fluoranthene and chrysene because the average recoveries were within acceptance limits. The results for the remaining listed compounds in the parent sample were qualified as estimated, possibly biased low (flagged "J-"). Additionally, the RPDs exceeded the acceptance limit for benzo(k)fluoranthene, chrysene, and pyrene; therefore, the benzo(k)fluoranthene and chrysene results were qualified as estimated (flagged "J"). No qualification was required for pyrene because it was previously qualified for low recovery. In the pesticide MS/MSD analyses performed on sample TDSB19 (2-4)042417, recoveries could not be determined due to the matrix interference that required a 50-fold dilution for the unspiked analysis. No qualifications were applied for this data gap.

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	

Field duplicates:

Within Criteria	Exceedance/Notes
N	QAPP precision criteria were exceeded for VOCs 2-butanone, benzene, ethylbenzene, toluene, and xylenes; PAHs anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, phenathrene, and pyrene; and lead. Due to the uncertainty in the true concentrations of these analytes, the listed results were qualified as estimated (flagged "J" or "UJ" as appropriate) for both samples [TDSB05 (8-10)-042417 and TDSB05 (8-10)Dup-042417], unless the results were previously qualified for other exceedances.

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	Some samples were analyzed at dilutions to minimize matrix interference, to bring high concentration results within calibration range, or for both reasons. Furthermore, some samples were analyzed for VOCs as "low-level" samples while others were extracted and analyzed as "medium-level" samples, resulting in differing detection and reporting limits. Therefore, the non-detect results for various samples are often not comparable.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Results between the detection and reporting limits were qualified as estimated (flagged "J") by the laboratory. Also, see "Sample dilutions" section above.

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [specify]:

Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Site Name	Teledyne Site		**TDD No.**	S05-0003-1612-004
Document Tracking No.	1744B			
Data Reviewer (signature and date)	Harry N. Ellis III 24 May 2017		**Technical Reviewer (signature and date)**	Jessica A. Vickers May 31, 2017
Laboratory Report No.	17041383		**Laboratory**	ALS Analytical/Holland, Michigan
Analyses	Polychlorinated biphenyls (PCBs) by SW-846 Method 8082, pH by SW-846 Method 9045D, free liquids by SW-846 Method 9095A, reactive cyanide by SW-846 Chapter 7.3.3.2, reactive sulfide by SW-846 Chapter 7.4.3.2, toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs) by SW-846 Methods 1311/8260B, TCLP semivolatile organic compounds (SVOCs) by SW-846 Methods 1311/8270D, and TCLP metals by SW-846 Methods 1311/6010C and 1311/7470A			
Samples and Matrix	One soil cuttings sample			
Field Duplicate Pairs	None			
Field Blanks	None			

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (January 2017) and the EPA *NFG for Inorganic Superfund Methods Data Review* (January 2017).

OVERALL EVALUATION

No results were rejected or qualified. All may be used as reported.

Data completeness:

Within Criteria	Exceedance/Notes
Y	

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
Y	

Field blanks:

Within Criteria	Exceedance/Notes
NA	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
Y	

MS/MSD:

Within Criteria	Exceedance/Notes
NA	MS/MSD performed on samples from other sites were not evaluated.

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	Laboratory duplicates performed on samples from other sites were not evaluated.

Field duplicates:

Within Criteria	Exceedance/Notes
NA	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	The TCLP VOC analysis was performed at a 20-fold dilution to minimize matrix interference. Reporting limits remained below the regulatory limits; therefore, no information was lost and no qualifications were applied.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Some results were below sample reporting limits; the laboratory properly flagged these results “J” as estimates.

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [specify]:

Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Site Name	Teledyne Site		**TDD No.**	S05-0003-1612-004
Document Tracking No.	1744C			
Data Reviewer (signature and date)	Harry N. Ellis III 24 May 2017		**Technical Reviewer (signature and date)**	Jessica A. Vickers May 31, 2017
Laboratory Report No.	1705183		**Laboratory**	ALS Analytical/Holland, Michigan
Analyses	Volatile organic compounds (VOCs) by SW-846 Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by SW-846 Method 8270D, pesticides by SW-846 Method 8081A, polychlorinated biphenyls (PCBs) by SW-846 Method 8082, and metals by SW-846 Methods 6020A and 7470A			
Samples and Matrix	Five monitoring well samples plus two trip blanks			
Field Duplicate Pairs	None			
Field Blanks	Trip Blank CLR #1 and Trip Blank CLR #2			

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (January 2017) and the EPA *NFG for Inorganic Superfund Methods Data Review* (January 2017).

OVERALL EVALUATION

No results were rejected, but a number were qualified. All may be used as qualified.

Data completeness:

Within Criteria	Exceedance/Notes
Y	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
N	The metals method blank yielded a chromium detection below the reporting limit. The field samples had no detectable chromium; therefore, no qualifications were applied.

Field blanks:

Within Criteria	Exceedance/Notes
Y	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
N	In sample TDMW1-050217, both pesticide surrogates yielded recoveries slightly below the acceptance limits; therefore, the non-detect pesticide results were qualified as estimated, possibly biased low (flagged "UJ").

MS/MSD:

Within Criteria	Exceedance/Notes
N	MS/MSD analyses performed on samples from other sites were not evaluated. For the MS/MSD performed on TDMW2-0502017, recoveries were below the acceptance limit for the VOC ethylbenzene; therefore, the result for the parent sample was qualified as estimated, possibly biased low (flagged "J-").

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	Laboratory duplicates performed on samples from other sites were not evaluated.

Field duplicates:

Within Criteria	Exceedance/Notes
NA	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	

Sample dilutions:

Within Criteria	Exceedance/Notes
NA	

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Many of the detected results were less than their reporting limits. The laboratory correctly flagged these “J” as estimates.

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [specify]:

Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Site Name	Teledyne Site		**TDD No.**	S05-0003-1612-004
Document Tracking No.	1941			
Data Reviewer (signature and date)	Jessica A. Vickers August 1, 2017		**Technical Reviewer (signature and date)**	Harry N. Ellis III 1 August 2017
Laboratory Report No.	129150		**Laboratory**	CT Laboratories/Baraboo, Wisconsin
Analyses	Volatile organic compounds (VOCs) by SW-846 Method 8260C, polynuclear aromatic hydrocarbons (PAHs) by SW-846 Method 8310, and metals by SW-846 Methods 6010C and 7471B			
Samples and Matrix	Sixteen soil samples (including a field duplicate)			
Field Duplicate Pairs	TD-SB46 (4-8)-071917/TD-SB46 (4-8)-071917D			
Field Blanks	METHANOL BLANK			

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (January 2017) and the EPA *NFG for Inorganic Superfund Methods Data Review* (January 2017).

OVERALL EVALUATION

No rejection of results was required for this data package. The results may be used as qualified based on the findings of this validation effort.

Data completeness:

Within Criteria	Exceedance/Notes
Y	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
N	The VOC method blank yielded a tetrahydrofuran concentration above the reporting limit (RL); therefore, the tetrahydrofuran results for TD-SB39 (2-4)-071917 and METHANOL BLANK were qualified as non-detect (U) at the reported values, and for TD-SB38 (8-10)-071917 and TD-SB40 (2-4)-071917 were qualified as estimated with a possible high bias (J+). The metals method blank yielded a barium concentration below the RL; however, no qualifications were applied because the associated results were greater than ten times the blank value.

Field blanks:

Within Criteria	Exceedance/Notes
N	METHANOL BLANK yielded a concentration of tetrahydrofuran above the RL; however, the result was qualified as non-detect based on method blank contamination. No further qualifications were applied.

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
N	Surrogate recoveries could not be accurately determined for several PAH analyses due to sample dilutions of 10- to 50-fold. No qualifications were applied. Sample TD-SB45 (4-6)-071917 yielded a low recovery for the PAH surrogate; therefore, the PAH results were qualified as estimated with a possible low bias (J-/UJ).

MS/MSD:

Within Criteria	Exceedance/Notes
N	In the MS/MSD analyses performed on sample TD-SB35 (6-8)-071917, recoveries and relative percent differences (RPD) could not be accurately calculated for mercury because the parent sample results were greater than four times the spike concentrations. No qualifications were applied. The lead MSD recovery and RPD were above the acceptance limit; therefore, the lead result for the parent sample was qualified as estimated with a possible high bias (J+). Recoveries were below the acceptance limits for PAHs anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, fluoranthene, phenanthrene, and pyrene. No qualifications were applied for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, phenanthrene, and pyrene because the average recoveries were within limits. The anthracene and fluoranthene results were qualified as estimated with a possible low bias (J-). Additionally, the RPDs for PAHs except 1-methylnaphthalene, 2-methylnaphthalene, acenaphthene, acenaphthylene, benzo(a)pyrene, benzo(b)fluoranthene, fluoranthene, fluorene, naphthalene, and phenanthrene exceeded the acceptance limits. The benzo(a)pyrene, benzo(b)fluoranthene, fluorene, and phenanthrene results for the parent sample were qualified as estimated (J). No further qualifications were applied because the associated results were either previously qualified or non-detect. In the MS/MSD analyses performed on sample TD-SB39 (2-4)-071917, recoveries were above the acceptance limits for trichloroethene and vinyl acetate; therefore, the trichloroethene result in the parent sample was qualified as estimated with a possible high bias (J+). No qualification was applied for vinyl acetate because the result for the parent sample was non-detect.

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	

Field duplicates:

Within Criteria	Exceedance/Notes
N	TD-SB46 (4-8)-071917/TD-SB46 (4-8)-071917D: QAPP precision criteria were exceeded for PAHs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, phenathrene, and pyrene; and chromium and mercury. Due to the uncertainty in the true concentrations of these analytes, the listed results were qualified as estimated (J) for both samples.

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
N	The recovery for VOC vinyl acetate was above the acceptance limit; however, no qualifications were applied because the associated results were non-detect.

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	Most samples were analyzed for PAHs at dilutions ranging from 5- to 50 fold to minimize matrix interference, to place results within calibration range, or for both reasons. Additionally, the trichloroethene result for TD-SB39 (2-4)071917 was analyzed at a 5-fold dilution, the barium result for TD-SB44 (2-4)-071917 was analyzed at a 20-fold dilution, and the mercury results for TD-SB35 (4-6)-071917, TD-SB37 (4-6)-071917, and TD-SB46 (4-8)-071917D were analyzed at 10-fold dilutions to place the results within the calibration range.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Results between the detection and reporting limits were qualified as estimated (flagged “J”) by the laboratory.

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [Second column confirmation]:

Within Criteria	Exceedance/Notes
N	PAH results with relative percent difference greater than 40 percent between the two detectors were flagged "P" by the laboratory. These results were qualified as estimated (J) unless previously qualified due to surrogate recovery exceedances.

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

APPENDIX G
REMEDIAL ACTION PLAN

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) tasked Tetra Tech, Inc. (Tetra Tech) to prepare a Remedial Action Plan (RAP) for the Former Teledyne Site located at 1910 South 53rd Street in the City of West Allis, Milwaukee County, Wisconsin (see Figure A-1 in Appendix A). This RAP was prepared in accordance with Chapter NR 722 of the Wisconsin Administrative Code. As such, all pertinent site investigation information (site background, nature and extent of contamination, and geology and hydrogeology) has been included in the Phase II environmental site assessment (ESA) report and is not repeated here. The purpose of this RAP is to describe Wisconsin Department of Natural Resources (WDNR)-approved options for remedial action at the site necessary to facilitate site redevelopment. This RAP has been prepared based on the results and findings of the Phase II ESAs performed at the site (AECOM 2012, Tetra Tech 2017).

This work was assigned under Superfund Technical Assessment and Response Team (START) Contract No. EP-S5-13-01, Technical Direction Document (TDD) No. S05-0003-1612-004, as part of the Targeted Brownfields Assessment (TBA) program.

1.1 SITE HISTORY

The property was initially developed in 1910 by Wisconsin Motor Manufacturing Company (WMMC) for production of four- and six-cylinder automotive and heavy-duty engines, which continued until 1993. In 1968, WMMC became Teledyne Wisconsin Motors. Site activities on the property included machining, heat treating, engine assembly, painting, engine testing, shipping, and carpentry functions. Teledyne Industries sold the property in 1993, and the site was used as storage until the building was demolished (2011-2012).

1.2 SITE INVESTIGATIONS

AECOM conducted a Phase I ESA on the site in February 2010 to evaluate the potential for recognized environmental conditions (REC) on the property. The Phase I ESA identified the following RECs in connection with the site: (1) historical use for manufacturing automotive engines and motors, including use of petroleum products and chlorinated solvents; (2) underground storage tanks (UST) used to store petroleum products at the site; (3) former electrical substation and polychlorinated biphenyls (PCB)-containing transformers at the site; (4) a hydraulic freight elevator used at the site; (5) investment casting operations at the site; and (6) use of adjacent property as a salvage yard.

Based on the findings of the Phase I ESA, AECOM completed a Phase II ESA at the site in October 2010 to investigate the RECs. The results of the Phase II ESA indicated the following:

- Polycyclic aromatic hydrocarbons (PAH) and metals above WDNR Industrial Direct-Contact (DC) Residual Contaminant Levels (RCL) for soil. Volatile organic compounds (VOC) were also present in soil at concentrations above laboratory detection limits but did not exceed WDNR Industrial DC RCLs.
- VOCs detected in groundwater above the NR 140 criteria.
- Light non-aqueous phase liquid detected in one soil boring on the south border of the site.
- Potentially six USTs remained on site based on observations of fill or vent pipes and historical records.
- Foundry sand present on site.

In 2011 and 2012, existing buildings, seven USTs, and associated piping were demolished and removed from the site. No soil was removed from the site, and a 6-inch clay cap was installed in areas where concentrations in soil exceeded WDNR industrial DC criteria. The clay cap was then covered with a 4-inch layer of topsoil and seeded.

1.3 EXPOSURE SUMMARY

Based on the samples collected by AECOM and Tetra Tech and observations during building demolition and UST removal, the following items will be addressed by this RAP.

The constituents of concern (COC) identified at the site include (1) VOCs, (2) semivolatile organic compounds (SVOC), and (3) metals. Constituents that exceed WDNR RCLs and Background Threshold Values or Wisconsin Administrative Code (WAC) NR 140 groundwater standards are as follows:

CONTAMINANTS OF CONCERN

Exposure Route	Confirmed COCs
Non-Industrial Exposure Route	
Soil Direct-Contact RCL	• Benzene • Ethylbenzene • Trichloroethene • Benz(a)anthracene • Benzo(a)pyrene • Benzo(b)fluoranthene • Dibenz(a,h)anthracene • Indeno(1,2,3-cd)pyrene • Naphthalene • Arsenic • Lead
Industrial Exposure Route	
Soil Direct-Contact RCL	• Benz(a)anthracene • Benzo(a)pyrene • Benzo(b)fluoranthene • Dibenz(a,h)anthracene • Arsenic • Lead
Groundwater Ingestion Exposure Route	
Groundwater Pathway RCL (Soil)	• Benzene • Ethylbenzene • Toluene • Xylenes, Total • Methylene chloride • Tetrachloroethene • Trichloroethene

Exposure Route	Confirmed COCs
	• Benz(a)anthracene • Benzo(b)fluoranthene • Chrysene • Naphthalene • Aroclor 1254 • Aroclor 1260 • Arsenic • Barium • Cadmium • Lead • Mercury • Selenium • Silver
Preventative Action Limit (Groundwater)	• Benzene • Benzo(a)pyrene • Benzo(b)fluoranthene • Naphthalene • Arsenic • Barium
Enforcement Standard (Groundwater)	• Benzene • Benzo(b)fluoranthene

No light nonaqueous phase liquid (LNAPL) was detected at the site during the 2017 Tetra Tech site investigations.

In addition, based on the presence of VOCs, a potential vapor intrusion concern exists at the site, and the presence of foundry sand fill on the site requires special handling.

USTs that were removed from the site during the 2011 to 2012 demolition/UST removal action are still listed as open incidents on the WDNR Bureau of Remediation and Redevelopment Tracking System (BRRTS) database.

2.0 REMEDIAL APPROACH

This section describes the proposed remedial approach for the site. These remedial action remedies may include implementation of soil excavation and off-site disposal, engineered barriers, a pre-mitigative vapor barrier in any building to be constructed, and establishment of institutional controls to ensure protectiveness of the remedial actions. Each one of these remedial actions is described in more detail in the following sections.

2.1 SOIL EXCAVATION FOR REDEVELOPMENT

Any soil to be excavated during the redevelopment for building footers, installation of infrastructure, or for any other purpose will be managed on site within the engineered barrier area, under an NR 500 exemption, and left on site under the engineered barrier area. If the excavated soil cannot be managed on site within the footprint of the engineered barrier, it will be transported for off-site disposal to a permitted Subtitle D waste landfill. All soil removed from the site should be considered potentially contaminated. Thus, fill materials that are generated as waste during any construction will require either handling on site, under the NR 500 exemption, or disposal off site in accordance with solid and hazardous waste regulations. Furthermore, as a result of the presence of foundry sand fill on the site, an exemption to construct under NR 500 should be obtained before any waste/cover materials are excavated or constructing on the historical fill site.

Therefore, an exemption to construct under NR 500 should be obtained from WDNR before any site redevelopment is initiated.

2.2 ENGINEERED BARRIERS:

Based on the laboratory analytical results, soil exceeding the WDNR Non-Industrial and Industrial DC RCLs is located throughout the site.

These DC RCLs that are exceeded will be addressed by:

- Installation of an engineered barriers to consist of a combination of the options below:
    - 2 feet of clean soil, or
    - 1 foot 2 inches of clean soil placed on top of existing cap, or
    - 1 foot of clean soil underlain by an approved robust geotextile fabric, or
    - Concrete, or
    - Asphalt

The geotextile fabric must be a nonwoven, needle-punched, polypropylene geotextile with a minimum grab tensile strength of 200 pounds. The clean soil will be laboratory analyzed for the full range of parameters before it is imported to the site to ensure that it meets the WDNR screening levels. If the existing cap will be utilized, that soil will also be laboratory analyzed for the full range of parameters to ensure that it meets the WDNR screening levels. The thickness of the cover will be verified at random points both during and after placement of the soil by conducting topographic land surveys before and after placement of the soil. The placement of the clean fill will be monitored and basic quality control checks for unusual odors or suspect debris and materials will be performed. Any engineered barrier selected must adhere to WDNR's "Guidance for Cover Systems as Soil Performance Standard Remedies."

Figure G-1 in Appendix G shows the locations of the WDNR Industrial DC RCLs that are exceeded and the proposed layout of the engineered barrier. The exact type of barrier and the layout will be determined during the redevelopment design phase and will be submitted to WDNR for review.

2.3 VAPOR BARRIER

A vapor intrusion assessment should be completed in conjunction with plans for site development. A vapor barrier may be appropriate, but depending on building placement and/or design, it may not be required. Conversely, an active vapor depressurization system may also be required. The vapor barrier may consist of a triple layer seal and may include a depressurization system. The depressurization system may be passive or not. The specific type of vapor barrier and depressurization system depends on the size

of the building and its construction details. It is most beneficial to install the vapor barrier and depressurization system during construction of the building to minimize costs and ensure effectiveness.

2.4 INSTITUTIONAL CONTROLS

Based on the site investigations, COCs exceeded the WDNR Groundwater Pathway RCLs and WAC NR 140 Enforcement Standards (ES). Thus, the groundwater at the site may not be used for a potable resource. Institutional controls should be implemented to ensure the groundwater is not used.

A Preventive Action Limit (PAL) exemption per NR 140.28 will be required. Imposition of institutional controls and application of West Allis Municipal Code groundwater use restriction will ensure that the groundwater present at the site will not be used as a potable resource.

Institutional controls must also include the requirement for the engineered barriers and may include installation of a vapor barrier at the site. The engineered barriers must be properly maintained to ensure exposure to the soil below does not occur.

2.5 STATE CLOSURE REQUIREMENTS

Results that exceed WDNR Groundwater Pathway ESs can be addressed by additional groundwater monitoring. Sites with exceedances of ESs in groundwater may be closed if: (1) the plume is stable or receding, (2) there is no threat to human health or the environment, (3) it has been demonstrated that natural attenuation (NA) is effective in reducing contaminant mass and concentration in groundwater, (4) NR 140 groundwater standards will be met within a reasonable period of time (per NR 722.10), (5) the site will be listed on the geographic information system (GIS) Registry of Close Remediation Sites with residual soil or groundwater impacts as required by NR 726, and (6) adequate source control has been taken.

Leaking underground storage tanks (LUST) are documented as open at the site and are identified as incidents 02-41-556802, 03-41-559045, 03-41-559037, 03-41-559048, 03-41-559043, and 03-41-559050 in the BRRTS database. The remedial actions to be performed at the site as part of site redevelopment may address these open LUST incidents. Once remediation is complete, a case closure request should be completed and submitted to the WDNR to demonstrate completion of remedial actions.

After the site is redeveloped, WDNR case closure may be achieved through inclusion of the site on the GIS Registry of Close Remediation Sites with residual soil or groundwater impacts. The GIS Registry packet for the site will most likely require a plan for regular maintenance of any cap or barrier areas.

3.0 REMEDIAL ACTION COSTS

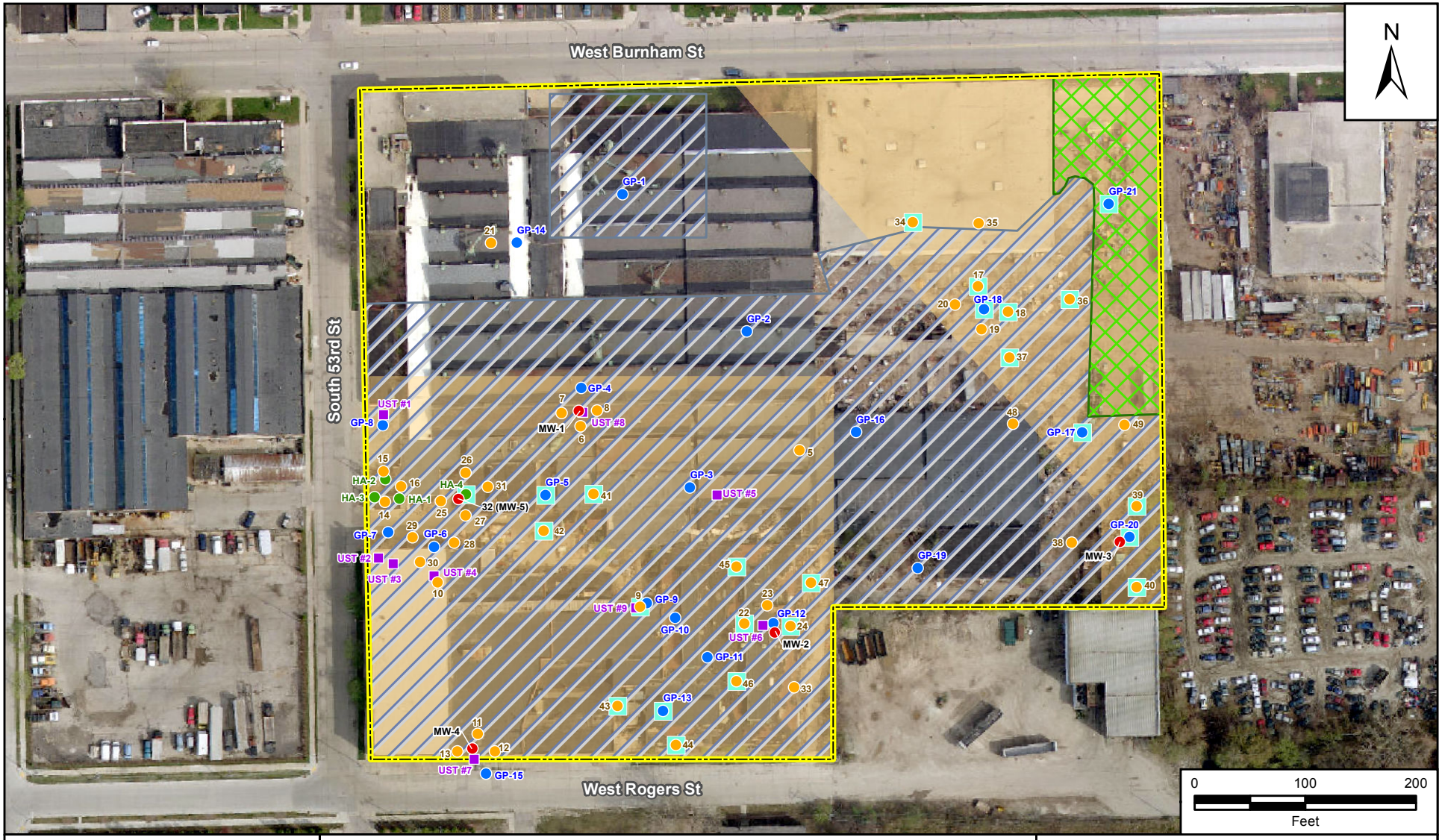
The following text provides a rough estimate of potential costs for completing the remedial actions at the site. These costs are provided for planning purposes and should not be construed as a cost proposal.

- Estimated costs per cubic yard for each engineered barrier option are provided below:

Engineered Barrier	Unit Cost
2 foot Clay or Clean Soil	$50-75 per cubic yard
Asphalt or Concrete	$12-20 per square yard
1 foot Clean Soil plus Geotextile	$55-80 per cubic yard

- The estimated cost for soil excavation, transportation, and off-site disposal as nonhazardous waste is $50 per ton.

- Vapor barrier installation cost is estimated to be $10 to 15 per square foot
- A maintenance plan for the engineered barriers is required as part of WNDR site closure requirements. The cost to prepare an engineered barrier maintenance plan is $5,000 to $10,000.



File Path: G:\G\G9026-START IV\Wisconsin\Teledyne Site\mxd\2017-08\Fig-G1-EngineeredBarriers.mxd

Reference Map

Legend

- Monitoring Well Location
- Soil Sample Location
- Geoprobe Sample Location
- UST Location
- Hand Auger Location
- Sample Exceeds WDNR Industrial Direct-Contact Soil Standard
- Approximate Site Boundary
- Clay Cap
- Paved Area
- Proposed Engineered Barrier

Teledyne Site
1910 S 53rd Street
West Allis, Milwaukee County, Wisconsin

Figure G1
Engineered Barriers

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

Date Saved: 10/19/2017

EPA Contract No.: EP-S5-13-01

TDD No.: S05-0003-1612-004

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree

ATTACHMENT 1
LABORATORY ANALYTICAL REPORTS

24-Apr-2017

Dave Franc
Tetra Tech EM Inc.
1 South Wacker Dr
Suite 3700
Chicago, IL 60606

Re: **Former Teledyne Site** Work Order: **1704816**

Dear Dave,

ALS Environmental received 6 samples on 14-Apr-2017 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 38.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Joseph Ribar

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager

Certificate No: WI: 399084510

ADDRESS 3352 128th Ave Holland, Michigan 49424 | PHONE (616) 399-6070 | FAX (616) 399-6185
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ALS Group, USA

Date: 24-Apr-17

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Work Order: **1704816**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1704816-01	TDSB01 (12-14) - 041217	Soil		4/12/2017 10:40	4/14/2017 10:00	☐
1704816-02	TDSB08 (4-6) - 041217	Soil		4/12/2017 11:25	4/14/2017 10:00	☐
1704816-03	TDSB 07 (6-8) - 041217	Soil		4/12/2017 11:35	4/14/2017 10:00	☐
1704816-04	TDSB 06 (4-6) - 041217	Soil		4/12/2017 11:40	4/14/2017 10:00	☐
1704816-05	TDSB 01 (4-6) - 041217	Soil		4/12/2017 12:00	4/14/2017 10:00	☐
1704816-06	Trip Blank	Soil		4/12/2017	4/14/2017 10:00	☐

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Work Order: 1704816

Case Narrative

Samples for the above noted Work Order were received on 04/14/2017. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch 100749, Method 8260, Sample 1704816-04A MS: The MS/MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Bromomethane

Batch 100749, Method 8260, Sample 1704816-04A MS: The MS/MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Acetone

Batch 100749, Method 8260, Sample 1704816-04A MS: The MS and/or MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: See attached QC report.

Batch 100749, Method VOC_8260_S, Sample 1704816-04A MS: A surrogate was high due to matrix interference.

Batch 100749, Method 8260, Sample LCS-100749: The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte. Methyl tert-butyl ether

No other deviations or anomalies were noted.

Extractable Organics:
Batch 100737, Pesticides Method 8081, Sample 1704816-04B: The reporting limit is elevated

due to dilution needed to eliminate matrix-related interference.

Batch 100737, Pesticides Method 8081, Sample 1704816-05B: One or more surrogate recoveries were below the lower control limits due to matrix interference.

Batch 100750, PCBs Method 8082, Sample 1704816-02B: One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

No other deviations or anomalies were noted.

Metals:
No other deviations or anomalies were noted.

Wet Chemistry:
No other deviations or anomalies were noted.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB01 (12-14) - 041217
Collection Date: 4/12/2017 10:40 AM

Work Order: 1704816
Lab ID: 1704816-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PARTICLE-SIZE ANALYSIS OF SOILS		Method: **D422**					Analyst: **LR**
3 Inch Sieve	**100**		**0**		**% Passing**	1	4/22/2017
1.5 Inch Sieve	**100**		**0**		**% Passing**	1	4/22/2017
0.75 Inch Sieve	**100**		**0**		**% Passing**	1	4/22/2017
0.375 Inch Sieve	**100**		**0**		**% Passing**	1	4/22/2017
No. 4 Sieve (4.75 mm)	**100**		**0**		**% Passing**	1	4/22/2017
No. 10 Sieve (2.00 mm)	**100**		**0**		**% Passing**	1	4/22/2017
No. 16 Sieve (1.18 mm)	**99.8**		**0**		**% Passing**	1	4/22/2017
No. 30 Sieve (0.60 mm)	**99.6**		**0**		**% Passing**	1	4/22/2017
No. 50 Sieve (0.30 mm)	**97.7**		**0**		**% Passing**	1	4/22/2017
No. 60 Sieve (0.25 mm)	**95.4**		**0**		**% Passing**	1	4/22/2017
No. 100 Sieve (0.15 mm)	**78.1**		**0**		**% Passing**	1	4/22/2017
No. 200 Sieve (0.075 mm)	**48.8**		**0**		**% Passing**	1	4/22/2017
0.030 mm (Hydrometer)	**26.0**		**0**		**% Passing**	1	4/22/2017
0.005 mm (Hydrometer)	**9.00**		**0**		**% Passing**	1	4/22/2017
0.0015 mm (Hydrometer)	**7.00**		**0**		**% Passing**	1	4/22/2017
% Gravel	U		**0**		**% Passing**	1	4/22/2017
% Sand	**51.2**		**0**		**% Passing**	1	4/22/2017
% Silt, Clay, Colloids	**48.8**		**0**		**% Passing**	1	4/22/2017

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB08 (4-6) - 041217
Collection Date: 4/12/2017 11:25 AM

Work Order: 1704816
Lab ID: 1704816-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		11	85	µg/Kg-dry	1	4/20/2017 13:12
Aroclor 1221	U		11	85	µg/Kg-dry	1	4/20/2017 13:12
Aroclor 1232	U		11	85	µg/Kg-dry	1	4/20/2017 13:12
Aroclor 1242	U		11	85	µg/Kg-dry	1	4/20/2017 13:12
Aroclor 1248	U		11	85	µg/Kg-dry	1	4/20/2017 13:12
Aroclor 1254	U		7.7	85	µg/Kg-dry	1	4/20/2017 13:12
Aroclor 1260	U		7.7	85	µg/Kg-dry	1	4/20/2017 13:12
Aroclor 1262	U		7.7	85	µg/Kg-dry	1	4/20/2017 13:12
Aroclor 1268	U		7.7	85	µg/Kg-dry	1	4/20/2017 13:12
Surr: Decachlorobiphenyl	*35.6*	S		*40-140*	*%REC*	1	4/20/2017 13:12
Surr: Tetrachloro-m-xylene	*43.7*	S		*45-124*	*%REC*	1	4/20/2017 13:12
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.8	13	µg/Kg-dry	1	4/18/2017 21:49
4,4´-DDE	U		2.4	13	µg/Kg-dry	1	4/18/2017 21:49
4,4´-DDT	U		2.0	13	µg/Kg-dry	1	4/18/2017 21:49
Aldrin	U		2.5	13	µg/Kg-dry	1	4/18/2017 21:49
alpha-BHC	U		2.5	13	µg/Kg-dry	1	4/18/2017 21:49
alpha-Chlordane	U		2.4	13	µg/Kg-dry	1	4/18/2017 21:49
beta-BHC	U		2.3	13	µg/Kg-dry	1	4/18/2017 21:49
Chlordane, Technical	U		13	32	µg/Kg-dry	1	4/18/2017 21:49
delta-BHC	U		6.6	13	µg/Kg-dry	1	4/18/2017 21:49
Dieldrin	U		2.4	13	µg/Kg-dry	1	4/18/2017 21:49
Endosulfan I	U		2.0	13	µg/Kg-dry	1	4/18/2017 21:49
Endosulfan II	U		2.4	13	µg/Kg-dry	1	4/18/2017 21:49
Endosulfan sulfate	U		2.6	13	µg/Kg-dry	1	4/18/2017 21:49
Endrin	U		2.6	13	µg/Kg-dry	1	4/18/2017 21:49
Endrin aldehyde	U		2.2	13	µg/Kg-dry	1	4/18/2017 21:49
Endrin ketone	U		2.4	13	µg/Kg-dry	1	4/18/2017 21:49
gamma-BHC (Lindane)	U		3.0	13	µg/Kg-dry	1	4/18/2017 21:49
gamma-Chlordane	U		2.9	13	µg/Kg-dry	1	4/18/2017 21:49
Heptachlor	U		3.6	13	µg/Kg-dry	1	4/18/2017 21:49
Heptachlor epoxide	U		2.3	13	µg/Kg-dry	1	4/18/2017 21:49
Methoxychlor	U		2.2	13	µg/Kg-dry	1	4/18/2017 21:49
Toxaphene	U		14	76	µg/Kg-dry	1	4/18/2017 21:49
Surr: Decachlorobiphenyl	*52.2*			*50-150*	*%REC*	1	4/18/2017 21:49
Surr: Tetrachloro-m-xylene	*78.0*			*50-150*	*%REC*	1	4/18/2017 21:49
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/18/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB08 (4-6) - 041217
Collection Date: 4/12/2017 11:25 AM

Work Order: 1704816
Lab ID: 1704816-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.042**		**0.0035**	**0.021**	**mg/Kg-dry**	1	4/19/2017 19:24
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/19/17		Analyst: **JF**
Arsenic	**5.3**		**0.32**	**2.1**	**mg/Kg-dry**	4	4/19/2017 18:47
Barium	**83**		**0.30**	**2.1**	**mg/Kg-dry**	4	4/19/2017 18:47
Cadmium	**0.15**	J	**0.017**	**0.85**	**mg/Kg-dry**	4	4/19/2017 18:47
Chromium	**24**		**0.10**	**2.1**	**mg/Kg-dry**	4	4/19/2017 18:47
Lead	**14**		**0.034**	**2.1**	**mg/Kg-dry**	4	4/19/2017 18:47
Selenium	**2.2**		**0.64**	**2.1**	**mg/Kg-dry**	4	4/19/2017 18:47
Silver	**0.035**	J	**0.017**	**2.1**	**mg/Kg-dry**	4	4/19/2017 18:47
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/20/17		Analyst: **RM**
2-Chloronaphthalene	U		5.3	53	µg/Kg-dry	1	4/20/2017 22:09
2-Methylnaphthalene	U		8.6	53	µg/Kg-dry	1	4/20/2017 22:09
Acenaphthene	U		3.7	53	µg/Kg-dry	1	4/20/2017 22:09
Acenaphthylene	U		4.7	53	µg/Kg-dry	1	4/20/2017 22:09
Anthracene	U		1.9	53	µg/Kg-dry	1	4/20/2017 22:09
Benzo(a)anthracene	U		3.2	53	µg/Kg-dry	1	4/20/2017 22:09
Benzo(a)pyrene	U		1.3	53	µg/Kg-dry	1	4/20/2017 22:09
Benzo(b)fluoranthene	U		2.0	53	µg/Kg-dry	1	4/20/2017 22:09
Benzo(g,h,i)perylene	U		3.5	53	µg/Kg-dry	1	4/20/2017 22:09
Benzo(k)fluoranthene	U		2.7	53	µg/Kg-dry	1	4/20/2017 22:09
Chrysene	U		2.0	53	µg/Kg-dry	1	4/20/2017 22:09
Dibenzo(a,h)anthracene	U		1.7	53	µg/Kg-dry	1	4/20/2017 22:09
Fluoranthene	U		1.5	53	µg/Kg-dry	1	4/20/2017 22:09
Fluorene	U		1.7	53	µg/Kg-dry	1	4/20/2017 22:09
Indeno(1,2,3-cd)pyrene	U		1.6	53	µg/Kg-dry	1	4/20/2017 22:09
Naphthalene	U		9.9	53	µg/Kg-dry	1	4/20/2017 22:09
Phenanthrene	U		1.8	53	µg/Kg-dry	1	4/20/2017 22:09
Pyrene	U		1.9	53	µg/Kg-dry	1	4/20/2017 22:09
Surr: 2-Fluorobiphenyl	*74.8*			*20-140*	*%REC*	1	4/20/2017 22:09
Surr: 4-Terphenyl-d14	*63.8*			*22-172*	*%REC*	1	4/20/2017 22:09
Surr: Nitrobenzene-d5	*62.4*			*8-140*	*%REC*	1	4/20/2017 22:09
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/18/17		Analyst: **AK**
1,1,1-Trichloroethane	U		13	47	µg/Kg-dry	1	4/19/2017 05:19
1,1,2,2-Tetrachloroethane	U		11	47	µg/Kg-dry	1	4/19/2017 05:19
1,1,2-Trichloroethane	U		14	47	µg/Kg-dry	1	4/19/2017 05:19
1,1-Dichloroethane	U		12	47	µg/Kg-dry	1	4/19/2017 05:19
1,1-Dichloroethene	U		13	47	µg/Kg-dry	1	4/19/2017 05:19
1,2-Dichloroethane	U		13	47	µg/Kg-dry	1	4/19/2017 05:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB08 (4-6) - 041217
Collection Date: 4/12/2017 11:25 AM

Work Order: 1704816
Lab ID: 1704816-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		13	47	µg/Kg-dry	1	4/19/2017 05:19
2-Butanone	U		63	310	µg/Kg-dry	1	4/19/2017 05:19
2-Hexanone	U		31	47	µg/Kg-dry	1	4/19/2017 05:19
4-Methyl-2-pentanone	U		34	47	µg/Kg-dry	1	4/19/2017 05:19
Acetone	U		85	160	µg/Kg-dry	1	4/19/2017 05:19
Benzene	U		11	47	µg/Kg-dry	1	4/19/2017 05:19
Bromodichloromethane	U		13	47	µg/Kg-dry	1	4/19/2017 05:19
Bromoform	U		17	47	µg/Kg-dry	1	4/19/2017 05:19
Bromomethane	U		20	120	µg/Kg-dry	1	4/19/2017 05:19
Carbon disulfide	U		16	47	µg/Kg-dry	1	4/19/2017 05:19
Carbon tetrachloride	U		8.3	47	µg/Kg-dry	1	4/19/2017 05:19
Chlorobenzene	U		14	47	µg/Kg-dry	1	4/19/2017 05:19
Chloroethane	U		30	160	µg/Kg-dry	1	4/19/2017 05:19
Chloroform	U		16	47	µg/Kg-dry	1	4/19/2017 05:19
cis-1,2-Dichloroethene	U		13	47	µg/Kg-dry	1	4/19/2017 05:19
cis-1,3-Dichloropropene	U		18	47	µg/Kg-dry	1	4/19/2017 05:19
Dibromochloromethane	U		11	47	µg/Kg-dry	1	4/19/2017 05:19
Ethylbenzene	U		11	47	µg/Kg-dry	1	4/19/2017 05:19
Methyl tert-butyl ether	U		15	47	µg/Kg-dry	1	4/19/2017 05:19
Methylene chloride	U		21	47	µg/Kg-dry	1	4/19/2017 05:19
Styrene	U		33	47	µg/Kg-dry	1	4/19/2017 05:19
Tetrachloroethene	U		23	47	µg/Kg-dry	1	4/19/2017 05:19
Toluene	U		16	47	µg/Kg-dry	1	4/19/2017 05:19
trans-1,2-Dichloroethene	U		13	47	µg/Kg-dry	1	4/19/2017 05:19
trans-1,3-Dichloropropene	U		8.4	47	µg/Kg-dry	1	4/19/2017 05:19
Trichloroethene	U		13	47	µg/Kg-dry	1	4/19/2017 05:19
Vinyl chloride	U		15	47	µg/Kg-dry	1	4/19/2017 05:19
Xylenes, Total	U		36	140	µg/Kg-dry	1	4/19/2017 05:19
Surr: 1,2-Dichloroethane-d4	*100*			*70-130*	*%REC*	1	4/19/2017 05:19
Surr: 4-Bromofluorobenzene	*101*			*70-130*	*%REC*	1	4/19/2017 05:19
Surr: Dibromofluoromethane	*91.8*			*70-130*	*%REC*	1	4/19/2017 05:19
Surr: Toluene-d8	*96.2*			*70-130*	*%REC*	1	4/19/2017 05:19
MOISTURE		Method:	**SW3550C**				Analyst: **EDL**
Moisture	**22**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 16:41

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 07 (6-8) - 041217
Collection Date: 4/12/2017 11:35 AM

Work Order: 1704816
Lab ID: 1704816-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		11	81	µg/Kg-dry	1	4/20/2017 13:26
Aroclor 1221	U		11	81	µg/Kg-dry	1	4/20/2017 13:26
Aroclor 1232	U		11	81	µg/Kg-dry	1	4/20/2017 13:26
Aroclor 1242	U		11	81	µg/Kg-dry	1	4/20/2017 13:26
Aroclor 1248	U		11	81	µg/Kg-dry	1	4/20/2017 13:26
Aroclor 1254	U		7.4	81	µg/Kg-dry	1	4/20/2017 13:26
Aroclor 1260	U		7.4	81	µg/Kg-dry	1	4/20/2017 13:26
Aroclor 1262	U		7.4	81	µg/Kg-dry	1	4/20/2017 13:26
Aroclor 1268	U		7.4	81	µg/Kg-dry	1	4/20/2017 13:26
Surr: Decachlorobiphenyl	*46.2*			*40-140*	*%REC*	1	4/20/2017 13:26
Surr: Tetrachloro-m-xylene	*46.0*			*45-124*	*%REC*	1	4/20/2017 13:26
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.7	12	µg/Kg-dry	1	4/18/2017 22:03
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/18/2017 22:03
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/18/2017 22:03
Aldrin	U		2.4	12	µg/Kg-dry	1	4/18/2017 22:03
alpha-BHC	U		2.4	12	µg/Kg-dry	1	4/18/2017 22:03
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/18/2017 22:03
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/18/2017 22:03
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/18/2017 22:03
delta-BHC	U		6.3	12	µg/Kg-dry	1	4/18/2017 22:03
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/18/2017 22:03
Endosulfan I	U		2.0	12	µg/Kg-dry	1	4/18/2017 22:03
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/18/2017 22:03
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/18/2017 22:03
Endrin	U		2.5	12	µg/Kg-dry	1	4/18/2017 22:03
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/18/2017 22:03
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/18/2017 22:03
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/18/2017 22:03
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/18/2017 22:03
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/18/2017 22:03
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/18/2017 22:03
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/18/2017 22:03
Toxaphene	U		13	73	µg/Kg-dry	1	4/18/2017 22:03
Surr: Decachlorobiphenyl	*60.9*			*50-150*	*%REC*	1	4/18/2017 22:03
Surr: Tetrachloro-m-xylene	*79.5*			*50-150*	*%REC*	1	4/18/2017 22:03
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/18/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 07 (6-8) - 041217
Collection Date: 4/12/2017 11:35 AM

Work Order: 1704816
Lab ID: 1704816-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.055**		**0.0030**	**0.018**	**mg/Kg-dry**	1	4/19/2017 19:27
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/19/17		Analyst: **JF**
Arsenic	**5.9**		**0.26**	**1.7**	**mg/Kg-dry**	4	4/19/2017 18:53
Barium	**64**		**0.24**	**1.7**	**mg/Kg-dry**	4	4/19/2017 18:53
Cadmium	**0.18**	J	**0.014**	**0.70**	**mg/Kg-dry**	4	4/19/2017 18:53
Chromium	**20**		**0.084**	**1.7**	**mg/Kg-dry**	4	4/19/2017 18:53
Lead	**11**		**0.028**	**1.7**	**mg/Kg-dry**	4	4/19/2017 18:53
Selenium	**1.7**	J	**0.52**	**1.7**	**mg/Kg-dry**	4	4/19/2017 18:53
Silver	**0.052**	J	**0.014**	**1.7**	**mg/Kg-dry**	4	4/19/2017 18:53
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/20/17		Analyst: **RM**
2-Chloronaphthalene	U		5.0	50	µg/Kg-dry	1	4/20/2017 22:35
2-Methylnaphthalene	U		8.2	50	µg/Kg-dry	1	4/20/2017 22:35
Acenaphthene	U		3.6	50	µg/Kg-dry	1	4/20/2017 22:35
Acenaphthylene	U		4.4	50	µg/Kg-dry	1	4/20/2017 22:35
Anthracene	U		1.8	50	µg/Kg-dry	1	4/20/2017 22:35
Benzo(a)anthracene	U		3.1	50	µg/Kg-dry	1	4/20/2017 22:35
Benzo(a)pyrene	U		1.3	50	µg/Kg-dry	1	4/20/2017 22:35
Benzo(b)fluoranthene	U		1.9	50	µg/Kg-dry	1	4/20/2017 22:35
Benzo(g,h,i)perylene	U		3.4	50	µg/Kg-dry	1	4/20/2017 22:35
Benzo(k)fluoranthene	U		2.6	50	µg/Kg-dry	1	4/20/2017 22:35
Chrysene	U		1.9	50	µg/Kg-dry	1	4/20/2017 22:35
Dibenzo(a,h)anthracene	U		1.6	50	µg/Kg-dry	1	4/20/2017 22:35
Fluoranthene	**280**		**1.4**	**50**	**µg/Kg-dry**	1	4/20/2017 22:35
Fluorene	U		1.6	50	µg/Kg-dry	1	4/20/2017 22:35
Indeno(1,2,3-cd)pyrene	U		1.5	50	µg/Kg-dry	1	4/20/2017 22:35
Naphthalene	U		9.5	50	µg/Kg-dry	1	4/20/2017 22:35
Phenanthrene	U		1.7	50	µg/Kg-dry	1	4/20/2017 22:35
Pyrene	**170**		**1.8**	**50**	**µg/Kg-dry**	1	4/20/2017 22:35
Surr: 2-Fluorobiphenyl	*74.4*			*20-140*	*%REC*	1	4/20/2017 22:35
Surr: 4-Terphenyl-d14	*73.2*			*22-172*	*%REC*	1	4/20/2017 22:35
Surr: Nitrobenzene-d5	*65.4*			*8-140*	*%REC*	1	4/20/2017 22:35
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/18/17		Analyst: **AK**
1,1,1-Trichloroethane	U		12	43	µg/Kg-dry	1	4/20/2017 11:13
1,1,2,2-Tetrachloroethane	U		10	43	µg/Kg-dry	1	4/20/2017 11:13
1,1,2-Trichloroethane	U		13	43	µg/Kg-dry	1	4/20/2017 11:13
1,1-Dichloroethane	U		11	43	µg/Kg-dry	1	4/20/2017 11:13
1,1-Dichloroethene	U		12	43	µg/Kg-dry	1	4/20/2017 11:13
1,2-Dichloroethane	U		12	43	µg/Kg-dry	1	4/20/2017 11:13

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 07 (6-8) - 041217
Collection Date: 4/12/2017 11:35 AM

Work Order: 1704816
Lab ID: 1704816-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	43	µg/Kg-dry	1	4/20/2017 11:13
2-Butanone	U		58	290	µg/Kg-dry	1	4/20/2017 11:13
2-Hexanone	U		29	43	µg/Kg-dry	1	4/20/2017 11:13
4-Methyl-2-pentanone	U		32	43	µg/Kg-dry	1	4/20/2017 11:13
Acetone	U		78	140	µg/Kg-dry	1	4/20/2017 11:13
Benzene	U		9.8	43	µg/Kg-dry	1	4/20/2017 11:13
Bromodichloromethane	U		12	43	µg/Kg-dry	1	4/20/2017 11:13
Bromoform	U		15	43	µg/Kg-dry	1	4/20/2017 11:13
Bromomethane	U		19	110	µg/Kg-dry	1	4/20/2017 11:13
Carbon disulfide	U		15	43	µg/Kg-dry	1	4/20/2017 11:13
Carbon tetrachloride	U		7.7	43	µg/Kg-dry	1	4/20/2017 11:13
Chlorobenzene	U		13	43	µg/Kg-dry	1	4/20/2017 11:13
Chloroethane	U		27	140	µg/Kg-dry	1	4/20/2017 11:13
Chloroform	U		15	43	µg/Kg-dry	1	4/20/2017 11:13
cis-1,2-Dichloroethene	U		12	43	µg/Kg-dry	1	4/20/2017 11:13
cis-1,3-Dichloropropene	U		17	43	µg/Kg-dry	1	4/20/2017 11:13
Dibromochloromethane	U		9.8	43	µg/Kg-dry	1	4/20/2017 11:13
Ethylbenzene	U		10	43	µg/Kg-dry	1	4/20/2017 11:13
Methyl tert-butyl ether	U		14	43	µg/Kg-dry	1	4/20/2017 11:13
Methylene chloride	U		20	43	µg/Kg-dry	1	4/20/2017 11:13
Styrene	U		30	43	µg/Kg-dry	1	4/20/2017 11:13
Tetrachloroethene	U		21	43	µg/Kg-dry	1	4/20/2017 11:13
Toluene	U		14	43	µg/Kg-dry	1	4/20/2017 11:13
trans-1,2-Dichloroethene	U		12	43	µg/Kg-dry	1	4/20/2017 11:13
trans-1,3-Dichloropropene	U		7.7	43	µg/Kg-dry	1	4/20/2017 11:13
Trichloroethene	U		12	43	µg/Kg-dry	1	4/20/2017 11:13
Vinyl chloride	U		14	43	µg/Kg-dry	1	4/20/2017 11:13
Xylenes, Total	U		33	130	µg/Kg-dry	1	4/20/2017 11:13
Surr: 1,2-Dichloroethane-d4	*105*			*70-130*	*%REC*	1	4/20/2017 11:13
Surr: 4-Bromofluorobenzene	*94.5*			*70-130*	*%REC*	1	4/20/2017 11:13
Surr: Dibromofluoromethane	*107*			*70-130*	*%REC*	1	4/20/2017 11:13
Surr: Toluene-d8	*92.3*			*70-130*	*%REC*	1	4/20/2017 11:13
MOISTURE			Method: **SW3550C**				Analyst: **EDL**
Moisture	**18**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 16:41

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 06 (4-6) - 041217
Collection Date: 4/12/2017 11:40 AM

Work Order: 1704816
Lab ID: 1704816-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		11	81	µg/Kg-dry	1	4/20/2017 13:41
Aroclor 1221	U		11	81	µg/Kg-dry	1	4/20/2017 13:41
Aroclor 1232	U		11	81	µg/Kg-dry	1	4/20/2017 13:41
Aroclor 1242	U		11	81	µg/Kg-dry	1	4/20/2017 13:41
Aroclor 1248	U		11	81	µg/Kg-dry	1	4/20/2017 13:41
Aroclor 1254	U		7.4	81	µg/Kg-dry	1	4/20/2017 13:41
Aroclor 1260	U		7.4	81	µg/Kg-dry	1	4/20/2017 13:41
Aroclor 1262	U		7.4	81	µg/Kg-dry	1	4/20/2017 13:41
Aroclor 1268	U		7.4	81	µg/Kg-dry	1	4/20/2017 13:41
Surr: Decachlorobiphenyl	*77.1*			*40-140*	*%REC*	1	4/20/2017 13:41
Surr: Tetrachloro-m-xylene	*73.7*			*45-124*	*%REC*	1	4/20/2017 13:41
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		13	61	µg/Kg-dry	5	4/18/2017 23:29
4,4´-DDE	U		12	61	µg/Kg-dry	5	4/18/2017 23:29
4,4´-DDT	U		9.7	61	µg/Kg-dry	5	4/18/2017 23:29
Aldrin	U		12	61	µg/Kg-dry	5	4/18/2017 23:29
alpha-BHC	U		12	61	µg/Kg-dry	5	4/18/2017 23:29
alpha-Chlordane	U		12	61	µg/Kg-dry	5	4/18/2017 23:29
beta-BHC	U		11	61	µg/Kg-dry	5	4/18/2017 23:29
Chlordane, Technical	U		60	150	µg/Kg-dry	5	4/18/2017 23:29
delta-BHC	U		32	61	µg/Kg-dry	5	4/18/2017 23:29
Dieldrin	U		12	61	µg/Kg-dry	5	4/18/2017 23:29
Endosulfan I	U		9.8	61	µg/Kg-dry	5	4/18/2017 23:29
Endosulfan II	U		12	61	µg/Kg-dry	5	4/18/2017 23:29
Endosulfan sulfate	U		13	61	µg/Kg-dry	5	4/18/2017 23:29
Endrin	U		13	61	µg/Kg-dry	5	4/18/2017 23:29
Endrin aldehyde	U		11	61	µg/Kg-dry	5	4/18/2017 23:29
Endrin ketone	U		11	61	µg/Kg-dry	5	4/18/2017 23:29
gamma-BHC (Lindane)	U		15	61	µg/Kg-dry	5	4/18/2017 23:29
gamma-Chlordane	U		14	61	µg/Kg-dry	5	4/18/2017 23:29
Heptachlor	U		17	61	µg/Kg-dry	5	4/18/2017 23:29
Heptachlor epoxide	U		11	61	µg/Kg-dry	5	4/18/2017 23:29
Methoxychlor	U		10	61	µg/Kg-dry	5	4/18/2017 23:29
Toxaphene	U		66	370	µg/Kg-dry	5	4/18/2017 23:29
Surr: Decachlorobiphenyl	*63.0*			*50-150*	*%REC*	5	4/18/2017 23:29
Surr: Tetrachloro-m-xylene	*64.9*			*50-150*	*%REC*	5	4/18/2017 23:29
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/18/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 06 (4-6) - 041217
Collection Date: 4/12/2017 11:40 AM

Work Order: 1704816
Lab ID: 1704816-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.073**		**0.0031**	**0.019**	**mg/Kg-dry**	1	4/19/2017 19:29
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/19/17		Analyst: **JF**
Arsenic	**4.8**		**0.27**	**1.8**	**mg/Kg-dry**	4	4/19/2017 18:59
Barium	**96**		**0.26**	**1.8**	**mg/Kg-dry**	4	4/19/2017 18:59
Cadmium	**0.14**	J	**0.015**	**0.73**	**mg/Kg-dry**	4	4/19/2017 18:59
Chromium	**22**		**0.088**	**1.8**	**mg/Kg-dry**	4	4/19/2017 18:59
Lead	**29**		**0.029**	**1.8**	**mg/Kg-dry**	4	4/19/2017 18:59
Selenium	**1.8**	J	**0.55**	**1.8**	**mg/Kg-dry**	4	4/19/2017 18:59
Silver	**0.053**	J	**0.015**	**1.8**	**mg/Kg-dry**	4	4/19/2017 18:59
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/20/17		Analyst: **RM**
2-Chloronaphthalene	U		5.0	50	µg/Kg-dry	1	4/22/2017 03:20
2-Methylnaphthalene	**84**		**8.1**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Acenaphthene	**390**		**3.5**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Acenaphthylene	**79**		**4.4**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Anthracene	**490**		**1.8**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Benzo(a)anthracene	**710**		**3.0**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Benzo(a)pyrene	**390**		**1.2**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Benzo(b)fluoranthene	**480**		**1.9**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Benzo(g,h,i)perylene	U		3.3	50	µg/Kg-dry	1	4/22/2017 03:20
Benzo(k)fluoranthene	**180**		**2.6**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Chrysene	**1,000**		**1.9**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Dibenzo(a,h)anthracene	U		1.6	50	µg/Kg-dry	1	4/22/2017 03:20
Fluoranthene	**2,100**		**1.4**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Fluorene	**530**		**1.6**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Indeno(1,2,3-cd)pyrene	U		1.5	50	µg/Kg-dry	1	4/22/2017 03:20
Naphthalene	**190**		**9.3**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Phenanthrene	**410**		**1.7**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Pyrene	**2,700**		**1.8**	**50**	**µg/Kg-dry**	1	4/22/2017 03:20
Surr: 2-Fluorobiphenyl	*66.9*			*20-140*	*%REC*	1	4/22/2017 03:20
Surr: 4-Terphenyl-d14	*73.3*			*22-172*	*%REC*	1	4/22/2017 03:20
Surr: Nitrobenzene-d5	*92.3*			*8-140*	*%REC*	1	4/22/2017 03:20
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/18/17		Analyst: **AK**
1,1,1-Trichloroethane	U		13	45	µg/Kg-dry	1	4/19/2017 05:44
1,1,2,2-Tetrachloroethane	U		11	45	µg/Kg-dry	1	4/19/2017 05:44
1,1,2-Trichloroethane	U		13	45	µg/Kg-dry	1	4/19/2017 05:44
1,1-Dichloroethane	U		11	45	µg/Kg-dry	1	4/19/2017 05:44
1,1-Dichloroethene	U		12	45	µg/Kg-dry	1	4/19/2017 05:44
1,2-Dichloroethane	U		12	45	µg/Kg-dry	1	4/19/2017 05:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 06 (4-6) - 041217
Collection Date: 4/12/2017 11:40 AM

Work Order: 1704816
Lab ID: 1704816-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	45	µg/Kg-dry	1	4/19/2017 05:44
2-Butanone	U		61	300	µg/Kg-dry	1	4/19/2017 05:44
2-Hexanone	U		30	45	µg/Kg-dry	1	4/19/2017 05:44
4-Methyl-2-pentanone	U		33	45	µg/Kg-dry	1	4/19/2017 05:44
Acetone	**180**		**82**	**150**	**µg/Kg-dry**	1	4/19/2017 05:44
Benzene	U		10	45	µg/Kg-dry	1	4/19/2017 05:44
Bromodichloromethane	U		12	45	µg/Kg-dry	1	4/19/2017 05:44
Bromoform	U		16	45	µg/Kg-dry	1	4/19/2017 05:44
Bromomethane	U		20	110	µg/Kg-dry	1	4/19/2017 05:44
Carbon disulfide	U		15	45	µg/Kg-dry	1	4/19/2017 05:44
Carbon tetrachloride	U		8.0	45	µg/Kg-dry	1	4/19/2017 05:44
Chlorobenzene	**62**		**14**	**45**	**µg/Kg-dry**	1	4/19/2017 05:44
Chloroethane	U		29	150	µg/Kg-dry	1	4/19/2017 05:44
Chloroform	U		15	45	µg/Kg-dry	1	4/19/2017 05:44
cis-1,2-Dichloroethene	U		13	45	µg/Kg-dry	1	4/19/2017 05:44
cis-1,3-Dichloropropene	U		17	45	µg/Kg-dry	1	4/19/2017 05:44
Dibromochloromethane	U		10	45	µg/Kg-dry	1	4/19/2017 05:44
Ethylbenzene	U		10	45	µg/Kg-dry	1	4/19/2017 05:44
Methyl tert-butyl ether	U		15	45	µg/Kg-dry	1	4/19/2017 05:44
Methylene chloride	U		21	45	µg/Kg-dry	1	4/19/2017 05:44
Styrene	U		32	45	µg/Kg-dry	1	4/19/2017 05:44
Tetrachloroethene	U		22	45	µg/Kg-dry	1	4/19/2017 05:44
Toluene	U		15	45	µg/Kg-dry	1	4/19/2017 05:44
trans-1,2-Dichloroethene	U		13	45	µg/Kg-dry	1	4/19/2017 05:44
trans-1,3-Dichloropropene	U		8.0	45	µg/Kg-dry	1	4/19/2017 05:44
Trichloroethene	U		12	45	µg/Kg-dry	1	4/19/2017 05:44
Vinyl chloride	U		14	45	µg/Kg-dry	1	4/19/2017 05:44
Xylenes, Total	U		35	140	µg/Kg-dry	1	4/19/2017 05:44
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	4/19/2017 05:44
Surr: 4-Bromofluorobenzene	*119*			*70-130*	*%REC*	1	4/19/2017 05:44
Surr: Dibromofluoromethane	*92.4*			*70-130*	*%REC*	1	4/19/2017 05:44
Surr: Toluene-d8	*86.5*			*70-130*	*%REC*	1	4/19/2017 05:44

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**20**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 16:41

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 01 (4-6) - 041217
Collection Date: 4/12/2017 12:00 PM

Work Order: 1704816
Lab ID: 1704816-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		10	80	µg/Kg-dry	1	4/20/2017 13:55
Aroclor 1221	U		10	80	µg/Kg-dry	1	4/20/2017 13:55
Aroclor 1232	U		10	80	µg/Kg-dry	1	4/20/2017 13:55
Aroclor 1242	U		10	80	µg/Kg-dry	1	4/20/2017 13:55
Aroclor 1248	U		10	80	µg/Kg-dry	1	4/20/2017 13:55
Aroclor 1254	U		7.2	80	µg/Kg-dry	1	4/20/2017 13:55
Aroclor 1260	U		7.2	80	µg/Kg-dry	1	4/20/2017 13:55
Aroclor 1262	U		7.2	80	µg/Kg-dry	1	4/20/2017 13:55
Aroclor 1268	U		7.2	80	µg/Kg-dry	1	4/20/2017 13:55
Surr: Decachlorobiphenyl	*59.9*			*40-140*	*%REC*	1	4/20/2017 13:55
Surr: Tetrachloro-m-xylene	*69.3*			*45-124*	*%REC*	1	4/20/2017 13:55
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.6	12	µg/Kg-dry	1	4/18/2017 23:43
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/18/2017 23:43
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/18/2017 23:43
Aldrin	U		2.4	12	µg/Kg-dry	1	4/18/2017 23:43
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/18/2017 23:43
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/18/2017 23:43
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/18/2017 23:43
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/18/2017 23:43
delta-BHC	U		6.2	12	µg/Kg-dry	1	4/18/2017 23:43
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/18/2017 23:43
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/18/2017 23:43
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/18/2017 23:43
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/18/2017 23:43
Endrin	U		2.5	12	µg/Kg-dry	1	4/18/2017 23:43
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/18/2017 23:43
Endrin ketone	U		2.2	12	µg/Kg-dry	1	4/18/2017 23:43
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/18/2017 23:43
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/18/2017 23:43
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/18/2017 23:43
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/18/2017 23:43
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/18/2017 23:43
Toxaphene	U		13	72	µg/Kg-dry	1	4/18/2017 23:43
Surr: Decachlorobiphenyl	*49.3*	S		*50-150*	*%REC*	1	4/18/2017 23:43
Surr: Tetrachloro-m-xylene	*65.3*			*50-150*	*%REC*	1	4/18/2017 23:43
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/18/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 01 (4-6) - 041217
Collection Date: 4/12/2017 12:00 PM

Work Order: 1704816
Lab ID: 1704816-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.033**		**0.0034**	**0.021**	**mg/Kg-dry**	1	4/19/2017 19:32
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/19/17		Analyst: **JF**
Arsenic	**4.0**		**0.23**	**1.5**	**mg/Kg-dry**	4	4/19/2017 19:24
Barium	**74**		**0.22**	**1.5**	**mg/Kg-dry**	4	4/19/2017 19:24
Cadmium	**0.29**	J	**0.012**	**0.62**	**mg/Kg-dry**	4	4/19/2017 19:24
Chromium	**16**		**0.074**	**1.5**	**mg/Kg-dry**	4	4/20/2017 23:33
Lead	**15**		**0.025**	**1.5**	**mg/Kg-dry**	4	4/19/2017 19:24
Selenium	**1.8**		**0.46**	**1.5**	**mg/Kg-dry**	4	4/19/2017 19:24
Silver	**0.039**	J	**0.012**	**1.5**	**mg/Kg-dry**	4	4/19/2017 19:24
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/20/17		Analyst: **RM**
2-Chloronaphthalene	U		5.1	51	µg/Kg-dry	1	4/22/2017 02:55
2-Methylnaphthalene	U		8.3	51	µg/Kg-dry	1	4/22/2017 02:55
Acenaphthene	U		3.6	51	µg/Kg-dry	1	4/22/2017 02:55
Acenaphthylene	U		4.5	51	µg/Kg-dry	1	4/22/2017 02:55
Anthracene	U		1.9	51	µg/Kg-dry	1	4/22/2017 02:55
Benzo(a)anthracene	U		3.1	51	µg/Kg-dry	1	4/22/2017 02:55
Benzo(a)pyrene	U		1.3	51	µg/Kg-dry	1	4/22/2017 02:55
Benzo(b)fluoranthene	U		2.0	51	µg/Kg-dry	1	4/22/2017 02:55
Benzo(g,h,i)perylene	U		3.4	51	µg/Kg-dry	1	4/22/2017 02:55
Benzo(k)fluoranthene	U		2.6	51	µg/Kg-dry	1	4/22/2017 02:55
Chrysene	U		2.0	51	µg/Kg-dry	1	4/22/2017 02:55
Dibenzo(a,h)anthracene	U		1.7	51	µg/Kg-dry	1	4/22/2017 02:55
Fluoranthene	U		1.5	51	µg/Kg-dry	1	4/22/2017 02:55
Fluorene	U		1.7	51	µg/Kg-dry	1	4/22/2017 02:55
Indeno(1,2,3-cd)pyrene	U		1.6	51	µg/Kg-dry	1	4/22/2017 02:55
Naphthalene	U		9.6	51	µg/Kg-dry	1	4/22/2017 02:55
Phenanthrene	U		1.8	51	µg/Kg-dry	1	4/22/2017 02:55
Pyrene	U		1.9	51	µg/Kg-dry	1	4/22/2017 02:55
Surr: 2-Fluorobiphenyl	*69.3*			*20-140*	*%REC*	1	4/22/2017 02:55
Surr: 4-Terphenyl-d14	*69.1*			*22-172*	*%REC*	1	4/22/2017 02:55
Surr: Nitrobenzene-d5	*81.7*			*8-140*	*%REC*	1	4/22/2017 02:55
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/18/17		Analyst: **AK**
1,1,1-Trichloroethane	U		13	44	µg/Kg-dry	1	4/19/2017 06:09
1,1,2,2-Tetrachloroethane	U		11	44	µg/Kg-dry	1	4/19/2017 06:09
1,1,2-Trichloroethane	U		13	44	µg/Kg-dry	1	4/19/2017 06:09
1,1-Dichloroethane	U		11	44	µg/Kg-dry	1	4/19/2017 06:09
1,1-Dichloroethene	U		12	44	µg/Kg-dry	1	4/19/2017 06:09
1,2-Dichloroethane	U		12	44	µg/Kg-dry	1	4/19/2017 06:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 01 (4-6) - 041217
Collection Date: 4/12/2017 12:00 PM

Work Order: 1704816
Lab ID: 1704816-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	44	µg/Kg-dry	1	4/19/2017 06:09
2-Butanone	**210**	J	**59**	**290**	**µg/Kg-dry**	1	4/19/2017 06:09
2-Hexanone	U		29	44	µg/Kg-dry	1	4/19/2017 06:09
4-Methyl-2-pentanone	U		32	44	µg/Kg-dry	1	4/19/2017 06:09
Acetone	**220**		**80**	**150**	**µg/Kg-dry**	1	4/19/2017 06:09
Benzene	U		10	44	µg/Kg-dry	1	4/19/2017 06:09
Bromodichloromethane	U		12	44	µg/Kg-dry	1	4/19/2017 06:09
Bromoform	U		16	44	µg/Kg-dry	1	4/19/2017 06:09
Bromomethane	U		19	110	µg/Kg-dry	1	4/19/2017 06:09
Carbon disulfide	U		15	44	µg/Kg-dry	1	4/19/2017 06:09
Carbon tetrachloride	U		7.8	44	µg/Kg-dry	1	4/19/2017 06:09
Chlorobenzene	U		13	44	µg/Kg-dry	1	4/19/2017 06:09
Chloroethane	U		28	150	µg/Kg-dry	1	4/19/2017 06:09
Chloroform	U		15	44	µg/Kg-dry	1	4/19/2017 06:09
cis-1,2-Dichloroethene	U		12	44	µg/Kg-dry	1	4/19/2017 06:09
cis-1,3-Dichloropropene	U		17	44	µg/Kg-dry	1	4/19/2017 06:09
Dibromochloromethane	U		10	44	µg/Kg-dry	1	4/19/2017 06:09
Ethylbenzene	U		10	44	µg/Kg-dry	1	4/19/2017 06:09
Methyl tert-butyl ether	U		14	44	µg/Kg-dry	1	4/19/2017 06:09
Methylene chloride	U		20	44	µg/Kg-dry	1	4/19/2017 06:09
Styrene	U		31	44	µg/Kg-dry	1	4/19/2017 06:09
Tetrachloroethene	U		22	44	µg/Kg-dry	1	4/19/2017 06:09
Toluene	U		15	44	µg/Kg-dry	1	4/19/2017 06:09
trans-1,2-Dichloroethene	U		12	44	µg/Kg-dry	1	4/19/2017 06:09
trans-1,3-Dichloropropene	U		7.9	44	µg/Kg-dry	1	4/19/2017 06:09
Trichloroethene	U		12	44	µg/Kg-dry	1	4/19/2017 06:09
Vinyl chloride	U		14	44	µg/Kg-dry	1	4/19/2017 06:09
Xylenes, Total	U		34	130	µg/Kg-dry	1	4/19/2017 06:09
Surr: 1,2-Dichloroethane-d4	*104*			*70-130*	*%REC*	1	4/19/2017 06:09
Surr: 4-Bromofluorobenzene	*98.2*			*70-130*	*%REC*	1	4/19/2017 06:09
Surr: Dibromofluoromethane	*92.8*			*70-130*	*%REC*	1	4/19/2017 06:09
Surr: Toluene-d8	*95.2*			*70-130*	*%REC*	1	4/19/2017 06:09

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**19**	**0.025**	**0.050**	**% of sample**	1	4/14/2017 16:41

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *24-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: Trip Blank
Collection Date: 4/12/2017

Work Order: 1704816
Lab ID: 1704816-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260B**			Prep: SW5035 / 4/18/17		Analyst: **AK**
1,1,1-Trichloroethane	U		8.6	30	µg/Kg-dry	1	4/19/2017 06:33
1,1,2,2-Tetrachloroethane	U		7.2	30	µg/Kg-dry	1	4/19/2017 06:33
1,1,2-Trichloroethane	U		9.0	30	µg/Kg-dry	1	4/19/2017 06:33
1,1-Dichloroethane	U		7.6	30	µg/Kg-dry	1	4/19/2017 06:33
1,1-Dichloroethene	U		8.0	30	µg/Kg-dry	1	4/19/2017 06:33
1,2-Dichloroethane	U		8.2	30	µg/Kg-dry	1	4/19/2017 06:33
1,2-Dichloropropane	U		8.3	30	µg/Kg-dry	1	4/19/2017 06:33
2-Butanone	U		40	200	µg/Kg-dry	1	4/19/2017 06:33
2-Hexanone	U		20	30	µg/Kg-dry	1	4/19/2017 06:33
4-Methyl-2-pentanone	U		22	30	µg/Kg-dry	1	4/19/2017 06:33
Acetone	U		54	100	µg/Kg-dry	1	4/19/2017 06:33
Benzene	U		6.8	30	µg/Kg-dry	1	4/19/2017 06:33
Bromodichloromethane	U		8.0	30	µg/Kg-dry	1	4/19/2017 06:33
Bromoform	U		11	30	µg/Kg-dry	1	4/19/2017 06:33
Bromomethane	U		13	75	µg/Kg-dry	1	4/19/2017 06:33
Carbon disulfide	U		10	30	µg/Kg-dry	1	4/19/2017 06:33
Carbon tetrachloride	U		5.3	30	µg/Kg-dry	1	4/19/2017 06:33
Chlorobenzene	U		9.0	30	µg/Kg-dry	1	4/19/2017 06:33
Chloroethane	U		19	100	µg/Kg-dry	1	4/19/2017 06:33
Chloroform	U		10	30	µg/Kg-dry	1	4/19/2017 06:33
cis-1,2-Dichloroethene	U		8.5	30	µg/Kg-dry	1	4/19/2017 06:33
cis-1,3-Dichloropropene	U		11	30	µg/Kg-dry	1	4/19/2017 06:33
Dibromochloromethane	U		6.8	30	µg/Kg-dry	1	4/19/2017 06:33
Ethylbenzene	U		7.0	30	µg/Kg-dry	1	4/19/2017 06:33
Methyl tert-butyl ether	U		9.8	30	µg/Kg-dry	1	4/19/2017 06:33
Methylene chloride	U		14	30	µg/Kg-dry	1	4/19/2017 06:33
Styrene	U		21	30	µg/Kg-dry	1	4/19/2017 06:33
Tetrachloroethene	U		15	30	µg/Kg-dry	1	4/19/2017 06:33
Toluene	U		9.9	30	µg/Kg-dry	1	4/19/2017 06:33
trans-1,2-Dichloroethene	U		8.5	30	µg/Kg-dry	1	4/19/2017 06:33
trans-1,3-Dichloropropene	U		5.4	30	µg/Kg-dry	1	4/19/2017 06:33
Trichloroethene	U		8.0	30	µg/Kg-dry	1	4/19/2017 06:33
Vinyl chloride	U		9.5	30	µg/Kg-dry	1	4/19/2017 06:33
Xylenes, Total	U		23	90	µg/Kg-dry	1	4/19/2017 06:33
Surr: 1,2-Dichloroethane-d4	*102*			*70-130*	*%REC*	1	4/19/2017 06:33
Surr: 4-Bromofluorobenzene	*91.0*			*70-130*	*%REC*	1	4/19/2017 06:33
Surr: Dibromofluoromethane	*92.4*			*70-130*	*%REC*	1	4/19/2017 06:33
Surr: Toluene-d8	*97.2*			*70-130*	*%REC*	1	4/19/2017 06:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 24-Apr-17

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
WorkOrder: **1704816**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
% Passing	Percent Passing
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group, USA

Date: 24-Apr-17

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100737** Instrument ID **GC12** Method: **SW8081A**

MBLK Sample ID: **PBLKS1-100737-100737** Units: **µg/Kg** Analysis Date: **4/18/2017 05:07 PM**

Client ID: Run ID: **GC12_170418A** SeqNo: **4384912** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	U	10								
4,4´-DDE	U	10								
4,4´-DDT	U	10								
Aldrin	U	10								
alpha-BHC	U	10								
alpha-Chlordane	U	10								
beta-BHC	U	10								
Chlordane, Technical	U	25								
delta-BHC	U	10								
Dieldrin	U	10								
Endosulfan I	U	10								
Endosulfan II	U	10								
Endosulfan sulfate	U	10								
Endrin	U	10								
Endrin aldehyde	U	10								
Endrin ketone	U	10								
gamma-BHC (Lindane)	U	10								
gamma-Chlordane	U	10								
Heptachlor	U	10								
Heptachlor epoxide	U	10								
Methoxychlor	U	10								
Toxaphene	U	60								
Surr: Decachlorobiphenyl	*30.53*	0	*33.3*	0	*91.7*	*50-150*		0		
Surr: Tetrachloro-m-xylene	*31.76*	0	*33.3*	0	*95.4*	*50-150*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100737** Instrument ID **GC12** Method: **SW8081A**

LCS Sample ID: **PLCSS1-100737-100737** Units: **µg/Kg** Analysis Date: **4/18/2017 05:20 PM**

Client ID: Run ID: **GC12_170418A** SeqNo: **4384913** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	33.7	10	33.33	0	101	50-150	0			
4,4´-DDE	33.5	10	33.33	0	101	50-150	0			
4,4´-DDT	33.95	10	33.33	0	102	50-150	0			
Aldrin	33.35	10	33.33	0	100	50-150	0			
alpha-BHC	34.16	10	33.33	0	102	50-150	0			
alpha-Chlordane	32.18	10	33.33	0	96.5	50-150	0			
beta-BHC	30.73	10	33.33	0	92.2	50-150	0			
delta-BHC	33.35	10	33.33	0	100	50-150	0			
Dieldrin	33.75	10	33.33	0	101	50-150	0			
Endosulfan I	32.39	10	33.33	0	97.2	50-150	0			
Endosulfan II	31.74	10	33.33	0	95.2	50-150	0			
Endosulfan sulfate	30.6	10	33.33	0	91.8	50-150	0			
Endrin	33.63	10	33.33	0	101	50-150	0			
Endrin aldehyde	29.74	10	33.33	0	89.2	50-150	0			
Endrin ketone	31.36	10	33.33	0	94.1	50-150	0			
gamma-BHC (Lindane)	33.75	10	33.33	0	101	50-150	0			
gamma-Chlordane	32.72	10	33.33	0	98.2	50-150	0			
Heptachlor	33.7	10	33.33	0	101	50-150	0			
Heptachlor epoxide	32.39	10	33.33	0	97.2	50-150	0			
Methoxychlor	32.4	10	33.33	0	97.2	50-150	0			
Surr: Decachlorobiphenyl	*27.86*	0	*33.3*	0	*83.7*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*30.67*	0	*33.3*	0	*92.1*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100737** Instrument ID **GC12** Method: **SW8081A**

MS Sample ID: **1704868-02B MS** Units: **µg/Kg** Analysis Date: **4/18/2017 05:48 PM**

Client ID: Run ID: **GC12_170418A** SeqNo: **4384915** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	26.76	9.9	33.04	0	81	50-150	0			
4,4´-DDE	26.08	9.9	33.04	0	78.9	50-150	0			
4,4´-DDT	26.57	9.9	33.04	0	80.4	50-150	0			
Aldrin	25.93	9.9	33.04	0	78.5	50-150	0			
alpha-BHC	26.7	9.9	33.04	0	80.8	50-150	0			
alpha-Chlordane	25.28	9.9	33.04	0	76.5	50-150	0			
beta-BHC	24.14	9.9	33.04	0	73.1	50-150	0			
delta-BHC	26.53	9.9	33.04	0	80.3	50-150	0			
Dieldrin	25.44	9.9	33.04	0	77	50-150	0			
Endosulfan I	25.34	9.9	33.04	0	76.7	50-150	0			
Endosulfan II	25.36	9.9	33.04	0	76.7	50-150	0			
Endosulfan sulfate	26.24	9.9	33.04	0	79.4	50-150	0			
Endrin	26.42	9.9	33.04	0	79.9	50-150	0			
Endrin aldehyde	23.35	9.9	33.04	0	70.7	50-150	0			
Endrin ketone	25.84	9.9	33.04	0	78.2	50-150	0			
gamma-BHC (Lindane)	26.45	9.9	33.04	0	80.1	50-150	0			
gamma-Chlordane	25.69	9.9	33.04	0	77.8	50-150	0			
Heptachlor	26.49	9.9	33.04	0	80.2	50-150	0			
Heptachlor epoxide	25.49	9.9	33.04	0	77.1	50-150	0			
Methoxychlor	25.94	9.9	33.04	0	78.5	50-150	0			
Surr: Decachlorobiphenyl	*21.62*	0	*33.01*	0	*65.5*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*22.03*	0	*33.01*	0	*66.7*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100737** Instrument ID **GC12** Method: **SW8081A**

MSD Sample ID: **1704868-02B MSD** Units: **µg/Kg** Analysis Date: **4/18/2017 06:02 PM**

Client ID: Run ID: **GC12_170418A** SeqNo: **4384916** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	23.74	9.8	32.77	0	72.5	50-150	26.76	11.9	35	
4,4´-DDE	23.17	9.8	32.77	0	70.7	50-150	26.08	11.8	35	
4,4´-DDT	23.61	9.8	32.77	0	72.1	50-150	26.57	11.8	35	
Aldrin	23.17	9.8	32.77	0	70.7	50-150	25.93	11.2	35	
alpha-BHC	23.72	9.8	32.77	0	72.4	50-150	26.7	11.8	35	
alpha-Chlordane	22.44	9.8	32.77	0	68.5	50-150	25.28	11.9	35	
beta-BHC	21.44	9.8	32.77	0	65.4	50-150	24.14	11.9	35	
delta-BHC	23.61	9.8	32.77	0	72.1	50-150	26.53	11.6	35	
Dieldrin	23.42	9.8	32.77	0	71.5	50-150	25.44	8.27	35	
Endosulfan I	22.53	9.8	32.77	0	68.8	50-150	25.34	11.7	35	
Endosulfan II	22.71	9.8	32.77	0	69.3	50-150	25.36	11	35	
Endosulfan sulfate	23.18	9.8	32.77	0	70.7	50-150	26.24	12.4	35	
Endrin	23.67	9.8	32.77	0	72.2	50-150	26.42	11	35	
Endrin aldehyde	20.86	9.8	32.77	0	63.7	50-150	23.35	11.3	35	
Endrin ketone	23.24	9.8	32.77	0	70.9	50-150	25.84	10.6	35	
gamma-BHC (Lindane)	23.48	9.8	32.77	0	71.6	50-150	26.45	11.9	35	
gamma-Chlordane	22.6	9.8	32.77	0	69	50-150	25.69	12.8	35	
Heptachlor	23.68	9.8	32.77	0	72.3	50-150	26.49	11.2	35	
Heptachlor epoxide	22.72	9.8	32.77	0	69.3	50-150	25.49	11.5	35	
Methoxychlor	23.18	9.8	32.77	0	70.7	50-150	25.94	11.3	35	
Surr: Decachlorobiphenyl	*19.34*	0	*32.74*	0	*59.1*	*50-150*	21.62	*11.2*	*35*	
Surr: Tetrachloro-m-xylene	*20.4*	0	*32.74*	0	*62.3*	*50-150*	22.03	*7.69*	*35*	

The following samples were analyzed in this batch: 1704816-02B 1704816-03B 1704816-04B 1704816-05B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100750** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-100750-100750** Units: **µg/Kg** Analysis Date: **4/19/2017 09:19 AM**

Client ID: Run ID: **GC14_170419A** SeqNo: **4385353** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	67								
Aroclor 1221	U	67								
Aroclor 1232	U	67								
Aroclor 1242	U	67								
Aroclor 1248	U	67								
Aroclor 1254	U	67								
Aroclor 1260	U	67								
Aroclor 1262	U	67								
Aroclor 1268	U	67								
Surr: Decachlorobiphenyl	*32.5*	0	*33.3*	0	*97.6*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*30.48*	0	*33.3*	0	*91.5*	*45-124*	0			

LCS Sample ID: **PLCSS1-100750-100750** Units: **µg/Kg** Analysis Date: **4/19/2017 09:33 AM**

Client ID: Run ID: **GC14_170419A** SeqNo: **4385354** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	598.4	67	833	0	71.8	50-130	0			
Aroclor 1260	673	67	833	0	80.8	50-130	0			
Surr: Decachlorobiphenyl	*32.65*	0	*33.3*	0	*98*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*20*	0	*33.3*	0	*60*	*45-124*	0			

MS Sample ID: **1704922-01A MS** Units: **µg/Kg** Analysis Date: **4/19/2017 01:22 PM**

Client ID: Run ID: **GC14_170419A** SeqNo: **4385368** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	740.9	66	825.5	0	89.8	40-140	0			
Aroclor 1260	857.3	66	825.5	145.9	86.2	40-140	0			
Surr: Decachlorobiphenyl	*28*	0	*33*	0	*84.9*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*19.29*	0	*33*	0	*58.5*	*45-124*	0			

MSD Sample ID: **1704922-01A MSD** Units: **µg/Kg** Analysis Date: **4/19/2017 01:37 PM**

Client ID: Run ID: **GC14_170419A** SeqNo: **4385369** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	754.7	66	824.6	0	91.5	40-140	740.9	1.84	50	
Aroclor 1260	946.7	66	824.6	145.9	97.1	40-140	857.3	9.91	50	
Surr: Decachlorobiphenyl	*29.23*	0	*32.97*	0	*88.7*	*40-140*	28	*4.28*	*50*	
Surr: Tetrachloro-m-xylene	*19.17*	0	*32.97*	0	*58.2*	*45-124*	19.29	*0.621*	*50*	

The following samples were analyzed in this batch: 1704816-02B 1704816-03B 1704816-04B 1704816-05B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100784** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-100784-100784** Units: **mg/Kg** Analysis Date: **4/19/2017 06:35 PM**
Client ID: Run ID: **HG1_170419A** SeqNo: **4386151** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.020								

LCS Sample ID: **LCS-100784-100784** Units: **mg/Kg** Analysis Date: **4/19/2017 06:46 PM**
Client ID: Run ID: **HG1_170419A** SeqNo: **4386152** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1817	0.020	0.1665	0	109	80-120	0			

MS Sample ID: **1704959-05AMS** Units: **mg/Kg** Analysis Date: **4/19/2017 07:02 PM**
Client ID: Run ID: **HG1_170419A** SeqNo: **4386155** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.2115	0.015	0.1273	-0.0003102	166	75-125	0			S

MSD Sample ID: **1704959-05AMSD** Units: **mg/Kg** Analysis Date: **4/19/2017 07:04 PM**
Client ID: Run ID: **HG1_170419A** SeqNo: **4386156** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1941	0.014	0.1201	-0.0003102	162	75-125	0.2115	8.56	35	S

The following samples were analyzed in this batch:

1704816-02B	1704816-03B	1704816-04B
1704816-05B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100819** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-100819-100819** Units: **mg/Kg** Analysis Date: **4/19/2017 06:35 PM**

Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4386374** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Cadmium	U	0.10								
Chromium	0.02688	0.25								J
Lead	0.006595	0.25								J
Selenium	U	0.25								

LCS Sample ID: **LCS-100819-100819** Units: **mg/Kg** Analysis Date: **4/19/2017 06:41 PM**

Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4386375** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.742	0.25	5	0	94.8	80-120	0			
Cadmium	4.506	0.10	5	0	90.1	80-120	0			
Chromium	4.882	0.25	5	0	97.6	80-120	0			
Lead	5.785	0.25	5	0	116	80-120	0			

LCS Sample ID: **LCS-100819-100819** Units: **mg/Kg** Analysis Date: **4/20/2017 04:56 PM**

Client ID: Run ID: **ICPMS1_170420A** SeqNo: **4388646** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	4.33	0.25	5	0	86.6	80-120	0			

MS Sample ID: **1704959-05AMS** Units: **mg/Kg** Analysis Date: **4/20/2017 12:51 AM**

Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4386444** Prep Date: **4/19/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.57	1.6	8.091	3.179	104	75-125	0			
Cadmium	7.757	0.65	8.091	0.06559	95.1	75-125	0			
Chromium	18.46	1.6	8.091	5.965	154	75-125	0			S
Lead	564.1	1.6	8.091	329.7	2900	75-125	0			SO
Selenium	7.896	1.6	8.091	0.3573	93.2	75-125	0			

MSD Sample ID: **1704959-05AMSD** Units: **mg/Kg** Analysis Date: **4/20/2017 12:57 AM**

Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4386446** Prep Date: **4/19/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.84	1.6	8.078	3.179	107	75-125	11.57	2.32	20	
Cadmium	7.8	0.65	8.078	0.06559	95.7	75-125	7.757	0.545	20	
Chromium	18.58	1.6	8.078	5.965	156	75-125	18.46	0.659	20	S
Lead	329.6	1.6	8.078	329.7	-1.62	75-125	564.1	52.5	20	SRO
Selenium	8.191	1.6	8.078	0.3573	97	75-125	7.896	3.66	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100819** Instrument ID **ICPMS1** Method: **SW6020A**

The following samples were analyzed in this batch:

1704816-02B	1704816-03B	1704816-04B
1704816-05B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100849** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-100849-100849** Units: **µg/Kg** Analysis Date: **4/21/2017 09:32 PM**

Client ID: Run ID: **SVMS6_170421A** SeqNo: **4392476** Prep Date: **4/20/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	U	42								
2-Methylnaphthalene	U	42								
Acenaphthene	U	42								
Acenaphthylene	U	42								
Anthracene	U	42								
Benzo(a)anthracene	U	42								
Benzo(a)pyrene	U	42								
Benzo(b)fluoranthene	U	42								
Benzo(g,h,i)perylene	U	42								
Benzo(k)fluoranthene	U	42								
Chrysene	U	42								
Dibenzo(a,h)anthracene	U	42								
Fluoranthene	U	42								
Fluorene	U	42								
Indeno(1,2,3-cd)pyrene	U	42								
Naphthalene	U	42								
Phenanthrene	U	42								
Pyrene	U	42								
Surr: 2-Fluorobiphenyl	*2582*	0	*3333*	0	*77.5*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2626*	0	*3333*	0	*78.8*	*22-172*	0			
Surr: Nitrobenzene-d5	*2782*	0	*3333*	0	*83.5*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100849** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-100849-100849** Units: **µg/Kg** Analysis Date: **4/21/2017 09:57 PM**

Client ID: Run ID: **SVMS6_170421A** SeqNo: **4392477** Prep Date: **4/20/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1415	42	1333	0	106	50-140	0			
2-Methylnaphthalene	1430	42	1333	0	107	50-140	0			
Acenaphthene	1227	42	1333	0	92	60-140	0			
Acenaphthylene	1238	42	1333	0	92.9	60-140	0			
Anthracene	1281	42	1333	0	96.1	60-140	0			
Benzo(a)anthracene	1244	42	1333	0	93.3	60-140	0			
Benzo(a)pyrene	982.2	42	1333	0	73.7	60-140	0			
Benzo(b)fluoranthene	918.3	42	1333	0	68.9	60-140	0			
Benzo(g,h,i)perylene	1019	42	1333	0	76.4	60-140	0			
Benzo(k)fluoranthene	974.9	42	1333	0	73.1	60-140	0			
Chrysene	1157	42	1333	0	86.8	60-140	0			
Dibenzo(a,h)anthracene	1295	42	1333	0	97.2	60-140	0			
Fluoranthene	1090	42	1333	0	81.8	60-140	0			
Fluorene	1589	42	1333	0	119	60-140	0			
Indeno(1,2,3-cd)pyrene	1381	42	1333	0	104	60-140	0			
Naphthalene	1271	42	1333	0	95.3	40-140	0			
Phenanthrene	1142	42	1333	0	85.6	60-140	0			
Pyrene	1150	42	1333	0	86.3	60-140	0			
Surr: 2-Fluorobiphenyl	*2440*	0	*3333*	0	*73.2*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2231*	0	*3333*	0	*66.9*	*22-172*	0			
Surr: Nitrobenzene-d5	*2741*	0	*3333*	0	*82.2*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100849** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **1704781-03C MS** Units: **µg/Kg** Analysis Date: **4/22/2017 01:16 AM**

Client ID: Run ID: **SVMS6_170421A** SeqNo: **4392478** Prep Date: **4/20/2017** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	992.2	410	1323	0	75	50-140	0			
2-Methylnaphthalene	901.3	410	1323	0	68.1	50-140	0			
Acenaphthene	872.7	410	1323	0	66	60-140	0			
Acenaphthylene	927.5	410	1323	0	70.1	60-140	0			
Anthracene	1177	410	1323	1558	-28.8	60-140	0			S
Benzo(a)anthracene	1164	410	1323	742.8	31.8	60-140	0			S
Benzo(a)pyrene	668.9	410	1323	0	50.6	60-140	0			S
Benzo(b)fluoranthene	745	410	1323	458.2	21.7	60-140	0			S
Benzo(g,h,i)perylene	1009	410	1323	0	76.2	60-140	0			
Benzo(k)fluoranthene	764.7	410	1323	0	57.8	60-140	0			S
Chrysene	757.9	410	1323	422	25.4	60-140	0			S
Dibenzo(a,h)anthracene	1306	410	1323	0	98.7	60-140	0			
Fluoranthene	1228	410	1323	1243	-1.16	60-140	0			S
Fluorene	941.7	410	1323	0	71.2	60-140	0			
Indeno(1,2,3-cd)pyrene	1701	410	1323	0	129	60-140	0			
Naphthalene	961.4	410	1323	0	72.7	40-140	0			
Phenanthrene	1262	410	1323	1233	2.2	60-140	0			S
Pyrene	1050	410	1323	1247	-14.9	60-140	0			S
Surr: 2-Fluorobiphenyl	*1150*	0	*3309*	0	*34.7*	*20-140*	0			
Surr: 4-Terphenyl-d14	*812.7*	0	*3309*	0	*24.6*	*22-172*	0			
Surr: Nitrobenzene-d5	*1603*	0	*3309*	0	*48.5*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100849** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **1704781-03C MSD** Units: **µg/Kg** Analysis Date: **4/22/2017 01:41 AM**

Client ID: Run ID: **SVMS6_170421A** SeqNo: **4392479** Prep Date: **4/20/2017** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1029	400	1272	0	80.9	50-140	992.2	3.64	30	
2-Methylnaphthalene	921.6	400	1272	0	72.4	50-140	901.3	2.23	30	
Acenaphthene	852.6	400	1272	0	67	60-140	872.7	2.33	30	
Acenaphthylene	972.7	400	1272	0	76.5	60-140	927.5	4.76	30	
Anthracene	1015	400	1272	1558	-42.7	60-140	1177	14.8	30	S
Benzo(a)anthracene	1011	400	1272	742.8	21.1	60-140	1164	14.1	30	S
Benzo(a)pyrene	647.1	400	1272	0	50.9	60-140	668.9	3.32	30	S
Benzo(b)fluoranthene	645.6	400	1272	458.2	14.7	60-140	745	14.3	30	S
Benzo(g,h,i)perylene	946.1	400	1272	0	74.4	60-140	1009	6.39	30	
Benzo(k)fluoranthene	662.7	400	1272	0	52.1	60-140	764.7	14.3	30	S
Chrysene	740.9	400	1272	422	25.1	60-140	757.9	2.27	30	S
Dibenzo(a,h)anthracene	1147	400	1272	0	90.2	60-140	1306	13	30	
Fluoranthene	936.2	400	1272	1243	-24.1	60-140	1228	26.9	30	S
Fluorene	992.7	400	1272	0	78	60-140	941.7	5.27	30	
Indeno(1,2,3-cd)pyrene	1672	400	1272	0	131	60-140	1701	1.71	30	
Naphthalene	957.6	400	1272	0	75.3	40-140	961.4	0.399	30	
Phenanthrene	1096	400	1272	1233	-10.8	60-140	1262	14.1	30	S
Pyrene	991	400	1272	1247	-20.1	60-140	1050	5.78	30	S
Surr: 2-Fluorobiphenyl	*1162*	0	*3181*	0	*36.5*	*20-140*	1150	*1.05*	*30*	
Surr: 4-Terphenyl-d14	*934*	0	*3181*	0	*29.4*	*22-172*	812.7	*13.9*	*30*	
Surr: Nitrobenzene-d5	*1574*	0	*3181*	0	*49.5*	*8-140*	1603	*1.84*	*30*	

The following samples were analyzed in this batch: 1704816-02B 1704816-03B 1704816-04B 1704816-05B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100749** Instrument ID **VMS9** Method: **SW8260B**

MBLK Sample ID: **MBLK-100749-100749** Units: **µg/Kg-dry** Analysis Date: **4/19/2017 02:50 AM**

Client ID: Run ID: **VMS9_170418B** SeqNo: **4384768** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	30								
1,1,2,2-Tetrachloroethane	U	30								
1,1,2-Trichloroethane	U	30								
1,1-Dichloroethane	U	30								
1,1-Dichloroethene	U	30								
1,2-Dichloroethane	U	30								
1,2-Dichloropropane	U	30								
2-Butanone	U	200								
2-Hexanone	U	30								
4-Methyl-2-pentanone	U	30								
Acetone	U	100								
Benzene	U	30								
Bromodichloromethane	U	30								
Bromoform	U	30								
Bromomethane	U	75								
Carbon disulfide	U	30								
Carbon tetrachloride	U	30								
Chlorobenzene	U	30								
Chloroethane	U	100								
Chloroform	U	30								
cis-1,2-Dichloroethene	U	30								
cis-1,3-Dichloropropene	U	30								
Dibromochloromethane	U	30								
Ethylbenzene	U	30								
Methyl tert-butyl ether	U	30								
Methylene chloride	U	30								
Styrene	U	30								
Tetrachloroethene	U	30								
Toluene	U	30								
trans-1,2-Dichloroethene	U	30								
trans-1,3-Dichloropropene	U	30								
Trichloroethene	U	30								
Vinyl chloride	U	30								
Xylenes, Total	U	90								
Surr: 1,2-Dichloroethane-d4	*981.5*	0	*1000*	0	*98.2*	*70-130*		0		
Surr: 4-Bromofluorobenzene	*898.5*	0	*1000*	0	*89.8*	*70-130*		0		
Surr: Dibromofluoromethane	*924*	0	*1000*	0	*92.4*	*70-130*		0		
Surr: Toluene-d8	*969.5*	0	*1000*	0	*97*	*70-130*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100749** Instrument ID **VMS9** Method: **SW8260B**

LCS Sample ID: **LCS-100749-100749** Units: **µg/Kg-dry** Analysis Date: **4/19/2017 01:35 AM**

Client ID: Run ID: **VMS9_170418B** SeqNo: **4384767** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1125	30	1000	0	112	70-135	0			
1,1,2,2-Tetrachloroethane	1052	30	1000	0	105	55-130	0			
1,1,2-Trichloroethane	1088	30	1000	0	109	60-125	0			
1,1-Dichloroethane	1158	30	1000	0	116	75-125	0			
1,1-Dichloroethene	1196	30	1000	0	120	65-135	0			
1,2-Dichloroethane	1141	30	1000	0	114	70-135	0			
1,2-Dichloropropane	1142	30	1000	0	114	70-120	0			
2-Butanone	1227	200	1000	0	123	30-160	0			
2-Hexanone	1300	30	1000	0	130	45-145	0			
4-Methyl-2-pentanone	1082	30	1000	0	108	74-176	0			
Acetone	1217	100	1000	0	122	20-160	0			
Benzene	1144	30	1000	0	114	75-125	0			
Bromodichloromethane	1064	30	1000	0	106	70-130	0			
Bromoform	910	30	1000	0	91	55-135	0			
Bromomethane	994.5	75	1000	0	99.4	50-170	0			
Carbon disulfide	1247	30	1000	0	125	45-160	0			
Carbon tetrachloride	1068	30	1000	0	107	65-135	0			
Chlorobenzene	1112	30	1000	0	111	75-125	0			
Chloroethane	1026	100	1000	0	103	40-155	0			
Chloroform	1126	30	1000	0	113	70-125	0			
cis-1,2-Dichloroethene	1169	30	1000	0	117	65-125	0			
cis-1,3-Dichloropropene	1020	30	1000	0	102	70-125	0			
Dibromochloromethane	841	30	1000	0	84.1	65-135	0			
Ethylbenzene	1032	30	1000	0	103	75-125	0			
Methyl tert-butyl ether	1271	30	1000	0	127	75-125	0			S
Methylene chloride	1096	30	1000	0	110	55-145	0			
Styrene	1014	30	1000	0	101	80-138	0			
Tetrachloroethene	1283	30	1000	0	128	67-167	0			
Toluene	1158	30	1000	0	116	70-125	0			
trans-1,2-Dichloroethene	1166	30	1000	0	117	65-135	0			
trans-1,3-Dichloropropene	914.5	30	1000	0	91.4	59-129	0			
Trichloroethene	1164	30	1000	0	116	75-125	0			
Vinyl chloride	976	30	1000	0	97.6	60-125	0			
Xylenes, Total	3128	90	3000	0	104	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1018*	0	*1000*	0	*102*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1070*	0	*1000*	0	*107*	*70-130*	0			
Surr: Dibromofluoromethane	*1001*	0	*1000*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*1022*	0	*1000*	0	*102*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100749** Instrument ID **VMS9** Method: **SW8260B**

MS Sample ID: **1704816-04A MS** Units: **µg/Kg-dry** Analysis Date: **4/19/2017 10:46 PM**

Client ID: **TDSB 06 (4-6) - 041217** Run ID: **VMS9_170419A** SeqNo: **4386865** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1628	45	1500	0	108	70-135	0			
1,1,2,2-Tetrachloroethane	1474	45	1500	0	98.2	55-130	0			
1,1,2-Trichloroethane	1491	45	1500	0	99.4	60-125	0			
1,1-Dichloroethane	1782	45	1500	0	119	75-125	0			
1,1-Dichloroethene	1736	45	1500	0	116	65-135	0			
1,2-Dichloroethane	1754	45	1500	0	117	70-135	0			
1,2-Dichloropropane	1700	45	1500	0	113	70-120	0			
2-Butanone	3742	300	1500	0	249	30-160	0			S
2-Hexanone	2498	45	1500	0	166	45-145	0			S
4-Methyl-2-pentanone	1620	45	1500	0	108	74-176	0			
Acetone	4808	150	1500	175.5	309	20-160	0			S
Benzene	1725	45	1500	0	115	75-125	0			
Bromodichloromethane	1477	45	1500	0	98.4	70-130	0			
Bromoform	1196	45	1500	0	79.7	55-135	0			
Bromomethane	641.2	110	1500	0	42.8	50-170	0			S
Carbon disulfide	1443	45	1500	0	96.2	45-160	0			
Carbon tetrachloride	1547	45	1500	0	103	65-135	0			
Chlorobenzene	1738	45	1500	62.25	112	75-125	0			
Chloroethane	711.8	150	1500	0	47.4	40-155	0			
Chloroform	1688	45	1500	0	113	70-125	0			
cis-1,2-Dichloroethene	1763	45	1500	0	118	65-125	0			
cis-1,3-Dichloropropene	1467	45	1500	0	97.8	70-125	0			
Dibromochloromethane	1092	45	1500	0	72.8	65-135	0			
Ethylbenzene	1582	45	1500	0	106	75-125	0			
Methyl tert-butyl ether	1919	45	1500	0	128	75-125	0			S
Methylene chloride	1754	45	1500	0	117	55-145	0			
Styrene	1623	45	1500	0	108	80-138	0			
Tetrachloroethene	2624	45	1500	0	175	67-167	0			S
Toluene	1509	45	1500	0	101	70-125	0			
trans-1,2-Dichloroethene	1757	45	1500	0	117	65-135	0			
trans-1,3-Dichloropropene	1185	45	1500	0	79	59-129	0			
Trichloroethene	1728	45	1500	0	115	75-125	0			
Vinyl chloride	1414	45	1500	0	94.3	60-125	0			
Xylenes, Total	4831	140	4500	0	107	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1599*	0	*1500*	0	*107*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1996*	0	*1500*	0	*133*	*70-130*	0			*S*
Surr: Dibromofluoromethane	*1497*	0	*1500*	0	*99.8*	*70-130*	0			
Surr: Toluene-d8	*1394*	0	*1500*	0	*93*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100749** Instrument ID **VMS9** Method: **SW8260B**

MSD Sample ID: **1704816-04A MSD** Units: **µg/Kg-dry** Analysis Date: **4/19/2017 11:11 PM**

Client ID: **TDSB 06 (4-6) - 041217** Run ID: **VMS9_170419A** SeqNo: **4386866** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1680	45	1500	0	112	70-135	1628	3.17	30	
1,1,2,2-Tetrachloroethane	1519	45	1500	0	101	55-130	1474	3.01	30	
1,1,2-Trichloroethane	1558	45	1500	0	104	60-125	1491	4.43	30	
1,1-Dichloroethane	1899	45	1500	0	127	75-125	1782	6.36	30	S
1,1-Dichloroethene	1927	45	1500	0	128	65-135	1736	10.4	30	
1,2-Dichloroethane	1707	45	1500	0	114	70-135	1754	2.73	30	
1,2-Dichloropropane	1693	45	1500	0	113	70-120	1700	0.442	30	
2-Butanone	3886	300	1500	0	259	30-160	3742	3.78	30	S
2-Hexanone	2486	45	1500	0	166	45-145	2498	0.451	30	S
4-Methyl-2-pentanone	1688	45	1500	0	113	74-176	1620	4.13	30	
Acetone	5140	150	1500	175.5	331	20-160	4808	6.66	30	S
Benzene	1732	45	1500	0	115	75-125	1725	0.391	30	
Bromodichloromethane	1562	45	1500	0	104	70-130	1477	5.58	30	
Bromoform	1198	45	1500	0	79.9	55-135	1196	0.251	30	
Bromomethane	627	110	1500	0	41.8	50-170	641.2	2.25	30	S
Carbon disulfide	1658	45	1500	0	110	45-160	1443	13.8	30	
Carbon tetrachloride	1582	45	1500	0	105	65-135	1547	2.21	30	
Chlorobenzene	1804	45	1500	62.25	116	75-125	1738	3.73	30	
Chloroethane	698.2	150	1500	0	46.6	40-155	711.8	1.91	30	
Chloroform	1759	45	1500	0	117	70-125	1688	4.09	30	
cis-1,2-Dichloroethene	1872	45	1500	0	125	65-125	1763	5.98	30	
cis-1,3-Dichloropropene	1528	45	1500	0	102	70-125	1467	4.11	30	
Dibromochloromethane	1135	45	1500	0	75.6	65-135	1092	3.84	30	
Ethylbenzene	1673	45	1500	0	112	75-125	1582	5.57	30	
Methyl tert-butyl ether	2066	45	1500	0	138	75-125	1919	7.38	30	S
Methylene chloride	1798	45	1500	0	120	55-145	1754	2.49	30	
Styrene	1682	45	1500	0	112	80-138	1623	3.59	30	
Tetrachloroethene	2787	45	1500	0	186	67-167	2624	6.02	30	S
Toluene	1684	45	1500	0	112	70-125	1509	11	30	
trans-1,2-Dichloroethene	1842	45	1500	0	123	65-135	1757	4.71	30	
trans-1,3-Dichloropropene	1313	45	1500	0	87.6	59-129	1185	10.3	30	
Trichloroethene	1792	45	1500	0	120	75-125	1728	3.66	30	
Vinyl chloride	1561	45	1500	0	104	60-125	1414	9.83	30	
Xylenes, Total	5084	140	4500	0	113	75-125	4831	5.1	30	
Surr: 1,2-Dichloroethane-d4	*1546*	0	*1500*	0	*103*	*70-130*	1599	*3.34*	*30*	
Surr: 4-Bromofluorobenzene	*1982*	0	*1500*	0	*132*	*70-130*	1996	*0.754*	*30*	*S*
Surr: Dibromofluoromethane	*1462*	0	*1500*	0	*97.5*	*70-130*	1497	*2.33*	*30*	
Surr: Toluene-d8	*1442*	0	*1500*	0	*96.1*	*70-130*	1394	*3.33*	*30*	

The following samples were analyzed in this batch:

1704816-02A	1704816-03A	1704816-04A
1704816-05A	1704816-06A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704816
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209899** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R209899** Units: **% of sample** Analysis Date: **4/14/2017 04:41 PM**

Client ID: Run ID: **MOIST_170414C** SeqNo: **4379234** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.050								

LCS Sample ID: **LCS-R209899** Units: **% of sample** Analysis Date: **4/14/2017 04:41 PM**

Client ID: Run ID: **MOIST_170414C** SeqNo: **4379233** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1704781-01B DUP** Units: **% of sample** Analysis Date: **4/14/2017 04:41 PM**

Client ID: Run ID: **MOIST_170414C** SeqNo: **4379221** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	23.76	0.050	0	0	0		24.56	3.31	5	

DUP Sample ID: **1704781-02B DUP** Units: **% of sample** Analysis Date: **4/14/2017 04:41 PM**

Client ID: Run ID: **MOIST_170414C** SeqNo: **4379223** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	14.38	0.050	0	0	0		14.4	0.139	5	

The following samples were analyzed in this batch:

1704816-02B 1704816-03B 1704816-04B
1704816-05B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511 | Houston, TX +1 281 530 5656 | Spring City, PA +1 610 948 4903 | South Charleston, WV +1 304 356 3168
Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070 | Middletown, PA +1 717 944 5541 | Salt Lake City, UT +1 801 266 7700 | York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 43163

ALS Project Manager: | ALS Work Order #: 1704816

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Former Teledyne Site	A	VOCs
Work Order		Project Number		B	PAHs/PCBs/Pesticides
Company Name	Tetra Tech EM Inc.	Bill To Company	Tetra Tech EM Inc.	C	RCRA Metals
Send Report To	Dave Franc	Invoice Attn		D	Grain Size
Address	1 South Wacker Dr Suite 3700	Address	1 South Wacker Dr Suite 3700	E	Moisture
				F	
City/State/Zip	Chicago, IL 60606	City/State/Zip	Chicago, IL 60606	G	
Phone	(312) 201-7411	Phone	(312) 201-7411	H	
Fax	(312) 938-0118	Fax	(312) 938-0118	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TDSB01(12-14)-041217	4-12-17	1040	SOIL	7	1				✓							
2	TDSB08(4-6)-041217	↓	1125	↓	↓	4	✓	✓	✓		✓						
3	TDSB07(6-8)-041217	↓	1135	↓	↓	4	✓	✓	✓		✓						
4	TDSB06(4-6)-041217	↓	1140	↓	↓	4	✓	✓	✓		✓						
5	TDSB01(4-6)-041217	↓	1200	↓	↓	4	✓	✓	✓		✓						
6	TRIP BLANK	—	—	—	—	2	✓	lab prepared									
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Ashley Kowalewski Ashley Kowalewski

Shipment Method: FedEx

Turnaround Time in Business Days (BD): ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Ashley Kowalewski	4-13-17	1045	FedEx
Relinquished by: FedEx	Date: 4/14/17	Time: 1000	Received by (Laboratory):
Logged by (Laboratory):	Date: 4/14/17	Time: 1525	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp
5R2	4.8°C

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Group, USA

Sample Receipt Checklist

Client Name: **TETRATECH-EM-CHI** Date/Time Received: **14-Apr-17 10:00**

Work Order: **1704816** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 14-Apr-17 (Date) Reviewed by: (eSignature) (Date)

Matrices: Soil
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.8/4.8 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	4/14/2017 3:30:23 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

21-Apr-2017

Dave Franc
Tetra Tech EM Inc.
1 South Wacker Dr
Suite 3700
Chicago, IL 60606

Re: **Former Teledyne Site** Work Order: **1704626**

Dear Dave,

ALS Environmental received 34 samples on 12-Apr-2017 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 162.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Joseph Ribar

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager

Certificate No: WI: 399084510

ADDRESS 3352 128th Ave Holland, Michigan 49424 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

ALS Group, USA

Date: 21-Apr-17

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Work Order: **1704626**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1704626-01	TDSB 21 (2-4) - 041017	Soil		4/10/2017 10:15	4/12/2017 09:00	☐
1704626-02	TDSB 15 (4-6) - 041017	Soil		4/10/2017 10:45	4/12/2017 09:00	☐
1704626-03	TDSB 16 (2-4) - 041017	Soil		4/10/2017 10:55	4/12/2017 09:00	☐
1704626-04	TDSB 14 (4-6) - 041017	Soil		4/10/2017 11:20	4/12/2017 09:00	☐
1704626-05	TDSB 26 (2-4) - 041017	Soil		4/10/2017 11:35	4/12/2017 09:00	☐
1704626-06	TDSB 26 (4-6) - 041017	Soil		4/10/2017 11:40	4/12/2017 09:00	☐
1704626-07	TDSB 31 (2-4) - 041017	Soil		4/10/2017 11:55	4/12/2017 09:00	☐
1704626-08	TDSB 27 (2-4) - 041017	Soil		4/10/2017 12:10	4/12/2017 09:00	☐
1704626-09	TDSB 27 (4-6) - 041017	Soil		4/10/2017 12:15	4/12/2017 09:00	☐
1704626-10	TDSB 25 (4-6) - 041017	Soil		4/10/2017 12:30	4/12/2017 09:00	☐
1704626-11	TDSB 28 (2-4) - 041017	Soil		4/10/2017 13:40	4/12/2017 09:00	☐
1704626-12	TDSB 28 (2-4) DUP - 041017	Soil		4/10/2017 13:42	4/12/2017 09:00	☐
1704626-13	TDSB 28 (4-6) - 041017	Soil		4/10/2017 13:45	4/12/2017 09:00	☐
1704626-14	TDSB 10 (6-8) - 041017	Soil		4/10/2017 14:00	4/12/2017 09:00	☐
1704626-15	TDSB 30 (0-2) - 041017	Soil		4/10/2017 14:05	4/12/2017 09:00	☐
1704626-16	TDSB 30 (4-6) - 041017	Soil		4/10/2017 14:10	4/12/2017 09:00	☐
1704626-17	TDSB 29 (4-6) - 041017	Soil		4/10/2017 14:15	4/12/2017 09:00	☐
1704626-18	TDSB 13 (4-6) - 041017	Soil		4/10/2017 15:35	4/12/2017 09:00	☐
1704626-19	TDSB 11 (6-8) - 041017	Soil		4/10/2017 16:25	4/12/2017 09:00	☐
1704626-20	TDSB 12 (6-8) - 041017	Soil		4/10/2017 16:40	4/12/2017 09:00	☐
1704626-21	TDSB 04 (6-8) - 041117	Soil		4/11/2017 11:00	4/12/2017 09:00	☐
1704626-22	TDSB 04 (12-14) - 041117	Soil		4/11/2017 11:05	4/12/2017 09:00	☐
1704626-23	TDSB 09 (6-8) - 041117	Soil		4/11/2017 11:20	4/12/2017 09:00	☐
1704626-24	TDSB 24 (4-6) - 041117	Soil		4/11/2017 11:45	4/12/2017 09:00	☐
1704626-25	TDSB 24 (4-6) - DUP - 041117	Soil		4/11/2017 11:50	4/12/2017 09:00	☐
1704626-26	TDSB 2 (6-8) - 041117	Soil		4/11/2017 12:15	4/12/2017 09:00	☐
1704626-27	TDSB 2 (12-14) - 041117	Soil		4/11/2017 12:20	4/12/2017 09:00	☐
1704626-28	TDSB 2 (8-10) - 041117	Soil		4/11/2017 12:18	4/12/2017 09:00	☐
1704626-29	TDSB 22 (4-6) - 041117	Soil		4/11/2017 12:45	4/12/2017 09:00	☐
1704626-30	TDSB 22 (8-10) - 041117	Soil		4/11/2017 12:50	4/12/2017 09:00	☐
1704626-31	TDSB 23 (0-2) - 041117	Soil		4/11/2017 13:05	4/12/2017 09:00	☐
1704626-32	TDSB 03 (8-10) - 041117	Soil		4/11/2017 14:05	4/12/2017 09:00	☐
1704626-33	TDSB 03 (12-14) - 041117	Soil		4/11/2017 14:00	4/12/2017 09:00	☐
1704626-34	Trip Blank	Soil		4/11/2017	4/12/2017 09:00	☐

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Work Order: 1704626

Case Narrative

Samples for the above noted Work Order were received on 04/12/2017. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch 100549, Method 8260, Sample 1704626-01A MS: The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Bromomethane

Batch 100549, Method 8260, Sample 1704626-01A MS: The MS and/or MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: 2-butanone, 2-hexanone, Acetone

Batch 100549, Method 8260, Sample 1704626-01A MSD: The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: 2-Methylnaphthalene

Batch 100549, Method 8260, Samples 1704626-08A, -09A, -11A, -12A, and -13A: Surrogate recoveries were outside control limits due to matrix interference.

Batch 100549, Method 8260, Samples 1704626-13A, -14A -16A, -19A, and -20A : One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

Batch 100605, Method 8260, Samples 1704626-24A and -25A: The sample ran at a dilution due to high concentrations of non-target analytes.

Batch R209897, Method 8260, Sample 1704626-21A: Surrogate recoveries were outside

control limits due to matrix interference.

No other deviations or anomalies were noted.

Extractable Organics:
Batch 100664, Pesticides Method 8081, Samples 1704626-05B, -16B, and -18B: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference for this analyte: All

Batch 100736, PCBs Method 8082, Sample 1704626-24B, -25B, -29B, -32B: One or more surrogate recoveries were below the lower control limits due to matrix interference. The sample results may be biased low.

No other deviations or anomalies were noted.

Metals:
Batch 100767, Method 6020, Sample 1704626-21BMS: The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Cr

Batch 100767, Method 6020, Sample 1704626-21BMS: The MS/MSD recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Ba and Pb

Batch 100771, Method 6020, Sample 1704626-26BMS: The MS/MSD recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Ba, Cu, Pb, and Zn

Batch 100771, Method 6020, Sample 1704626-26BMSD: The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: Pb and Zn

Batch 100771, Method 6020, Sample 1704626-26BMSD: The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: Cr

No other deviations or anomalies were noted.

Wet Chemistry:
Batch R209726, Moisture, Sample 1704626-01B DUP: RPD is outside of test defined limits. Results should be considered estimated.

Batch R209726, Moisture, Sample 1704626-09B DUP: RPD is outside of test defined limits. Results should be considered estimated.

No other deviations or anomalies were noted.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 21 (2-4) - 041017
Collection Date: 4/10/2017 10:15 AM

Work Order: 1704626
Lab ID: 1704626-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		9.8	76	µg/Kg-dry	1	4/17/2017 18:58
Aroclor 1221	U		9.8	76	µg/Kg-dry	1	4/17/2017 18:58
Aroclor 1232	U		9.8	76	µg/Kg-dry	1	4/17/2017 18:58
Aroclor 1242	U		9.8	76	µg/Kg-dry	1	4/17/2017 18:58
Aroclor 1248	U		9.8	76	µg/Kg-dry	1	4/17/2017 18:58
Aroclor 1254	U		6.9	76	µg/Kg-dry	1	4/17/2017 18:58
Aroclor 1260	U		6.9	76	µg/Kg-dry	1	4/17/2017 18:58
Aroclor 1262	U		6.9	76	µg/Kg-dry	1	4/17/2017 18:58
Aroclor 1268	U		6.9	76	µg/Kg-dry	1	4/17/2017 18:58
Surr: Decachlorobiphenyl	*69.7*			*40-140*	*%REC*	1	4/17/2017 18:58
Surr: Tetrachloro-m-xylene	*74.0*			*45-124*	*%REC*	1	4/17/2017 18:58
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.6	12	µg/Kg-dry	1	4/17/2017 18:10
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/17/2017 18:10
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/17/2017 18:10
Aldrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 18:10
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/17/2017 18:10
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/17/2017 18:10
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/17/2017 18:10
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/17/2017 18:10
delta-BHC	U		6.2	12	µg/Kg-dry	1	4/17/2017 18:10
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 18:10
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/17/2017 18:10
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/17/2017 18:10
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/17/2017 18:10
Endrin	U		2.5	12	µg/Kg-dry	1	4/17/2017 18:10
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/17/2017 18:10
Endrin ketone	U		2.2	12	µg/Kg-dry	1	4/17/2017 18:10
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/17/2017 18:10
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/17/2017 18:10
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/17/2017 18:10
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/17/2017 18:10
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/17/2017 18:10
Toxaphene	U		13	72	µg/Kg-dry	1	4/17/2017 18:10
Surr: Decachlorobiphenyl	*80.5*			*50-150*	*%REC*	1	4/17/2017 18:10
Surr: Tetrachloro-m-xylene	*78.8*			*50-150*	*%REC*	1	4/17/2017 18:10
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 21 (2-4) - 041017
Collection Date: 4/10/2017 10:15 AM

Work Order: 1704626
Lab ID: 1704626-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.049**		**0.0030**	**0.018**	**mg/Kg-dry**	1	4/18/2017 19:22
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/17/17		Analyst: **JF**
Arsenic	**5.8**		**0.26**	**1.8**	**mg/Kg-dry**	4	4/19/2017 14:40
Barium	**73**		**0.25**	**1.8**	**mg/Kg-dry**	4	4/19/2017 14:40
Cadmium	**0.031**	J	**0.014**	**0.71**	**mg/Kg-dry**	4	4/19/2017 14:40
Chromium	**28**		**0.085**	**1.8**	**mg/Kg-dry**	4	4/19/2017 14:40
Lead	**14**		**0.028**	**1.8**	**mg/Kg-dry**	4	4/19/2017 14:40
Selenium	**2.5**		**0.53**	**1.8**	**mg/Kg-dry**	4	4/19/2017 14:40
Silver	**0.028**	J	**0.014**	**1.8**	**mg/Kg-dry**	4	4/19/2017 14:40
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/17/17		Analyst: **RM**
2-Chloronaphthalene	U		4.9	49	µg/Kg-dry	1	4/19/2017 07:35
2-Methylnaphthalene	U		8.0	49	µg/Kg-dry	1	4/19/2017 07:35
Acenaphthene	U		3.5	49	µg/Kg-dry	1	4/19/2017 07:35
Acenaphthylene	U		4.3	49	µg/Kg-dry	1	4/19/2017 07:35
Anthracene	U		1.8	49	µg/Kg-dry	1	4/19/2017 07:35
Benzo(a)anthracene	U		3.0	49	µg/Kg-dry	1	4/19/2017 07:35
Benzo(a)pyrene	U		1.2	49	µg/Kg-dry	1	4/19/2017 07:35
Benzo(b)fluoranthene	U		1.9	49	µg/Kg-dry	1	4/19/2017 07:35
Benzo(g,h,i)perylene	U		3.3	49	µg/Kg-dry	1	4/19/2017 07:35
Benzo(k)fluoranthene	U		2.6	49	µg/Kg-dry	1	4/19/2017 07:35
Chrysene	U		1.9	49	µg/Kg-dry	1	4/19/2017 07:35
Dibenzo(a,h)anthracene	U		1.6	49	µg/Kg-dry	1	4/19/2017 07:35
Fluoranthene	U		1.4	49	µg/Kg-dry	1	4/19/2017 07:35
Fluorene	U		1.6	49	µg/Kg-dry	1	4/19/2017 07:35
Indeno(1,2,3-cd)pyrene	U		1.5	49	µg/Kg-dry	1	4/19/2017 07:35
Naphthalene	U		9.3	49	µg/Kg-dry	1	4/19/2017 07:35
Phenanthrene	U		1.7	49	µg/Kg-dry	1	4/19/2017 07:35
Pyrene	U		1.8	49	µg/Kg-dry	1	4/19/2017 07:35
Surr: 2-Fluorobiphenyl	*74.1*			*20-140*	*%REC*	1	4/19/2017 07:35
Surr: 4-Terphenyl-d14	*77.8*			*22-172*	*%REC*	1	4/19/2017 07:35
Surr: Nitrobenzene-d5	*62.4*			*8-140*	*%REC*	1	4/19/2017 07:35
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **EMR**
1,1,1-Trichloroethane	U		0.13	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
1,1,2,2-Tetrachloroethane	U		0.094	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
1,1,2-Trichloroethane	U		0.51	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
1,1-Dichloroethane	U		0.11	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
1,1-Dichloroethene	U		0.14	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
1,2-Dichloroethane	U		0.13	4.1	µg/Kg-dry	0.689	4/14/2017 14:52

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 21 (2-4) - 041017
Collection Date: 4/10/2017 10:15 AM

Work Order: 1704626
Lab ID: 1704626-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		0.29	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
2-Butanone	U		0.70	8.2	µg/Kg-dry	0.689	4/14/2017 14:52
2-Hexanone	U		0.55	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
4-Methyl-2-pentanone	U		0.15	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Acetone	**22**		**1.2**	**8.2**	**µg/Kg-dry**	0.689	4/14/2017 14:52
Benzene	U		0.080	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Bromodichloromethane	U		0.089	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Bromoform	U		0.12	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Bromomethane	U		0.25	8.2	µg/Kg-dry	0.689	4/14/2017 14:52
Carbon disulfide	U		0.16	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Carbon tetrachloride	U		0.20	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Chlorobenzene	U		0.13	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Chloroethane	U		0.43	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Chloroform	U		0.17	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Chloromethane	U		0.21	8.2	µg/Kg-dry	0.689	4/14/2017 14:52
cis-1,2-Dichloroethene	U		0.099	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
cis-1,3-Dichloropropene	U		0.094	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Dibromochloromethane	U		0.12	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Ethylbenzene	U		0.095	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Methyl tert-butyl ether	U		0.15	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Methylene chloride	U		0.11	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Styrene	U		0.24	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Tetrachloroethene	U		0.18	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Toluene	U		0.10	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
trans-1,2-Dichloroethene	U		0.19	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
trans-1,3-Dichloropropene	U		0.13	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Trichloroethene	**1.7**	J	**0.16**	**4.1**	**µg/Kg-dry**	0.689	4/14/2017 14:52
Vinyl chloride	U		0.14	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Xylenes, Total	U		0.44	4.1	µg/Kg-dry	0.689	4/14/2017 14:52
Surr: 1,2-Dichloroethane-d4	*112*			*70-120*	*%REC*	0.689	4/14/2017 14:52
Surr: 4-Bromofluorobenzene	*100*			*75-120*	*%REC*	0.689	4/14/2017 14:52
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	0.689	4/14/2017 14:52
Surr: Toluene-d8	*98.4*			*85-120*	*%REC*	0.689	4/14/2017 14:52
MOISTURE			Method: **SW3550C**				Analyst: **EDL**
Moisture	**16**		**0.025**	**0.050**	**% of sample**	1	4/13/2017 18:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 15 (4-6) - 041017
Collection Date: 4/10/2017 10:45 AM

Work Order: 1704626
Lab ID: 1704626-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		11	81	µg/Kg-dry	1	4/17/2017 19:12
Aroclor 1221	U		11	81	µg/Kg-dry	1	4/17/2017 19:12
Aroclor 1232	U		11	81	µg/Kg-dry	1	4/17/2017 19:12
Aroclor 1242	U		11	81	µg/Kg-dry	1	4/17/2017 19:12
Aroclor 1248	U		11	81	µg/Kg-dry	1	4/17/2017 19:12
Aroclor 1254	U		7.4	81	µg/Kg-dry	1	4/17/2017 19:12
Aroclor 1260	U		7.4	81	µg/Kg-dry	1	4/17/2017 19:12
Aroclor 1262	U		7.4	81	µg/Kg-dry	1	4/17/2017 19:12
Aroclor 1268	U		7.4	81	µg/Kg-dry	1	4/17/2017 19:12
Surr: Decachlorobiphenyl	*75.9*			*40-140*	*%REC*	1	4/17/2017 19:12
Surr: Tetrachloro-m-xylene	*80.3*			*45-124*	*%REC*	1	4/17/2017 19:12
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.7	12	µg/Kg-dry	1	4/17/2017 18:24
4,4´-DDE	U		2.4	12	µg/Kg-dry	1	4/17/2017 18:24
4,4´-DDT	U		2.0	12	µg/Kg-dry	1	4/17/2017 18:24
Aldrin	U		2.5	12	µg/Kg-dry	1	4/17/2017 18:24
alpha-BHC	U		2.4	12	µg/Kg-dry	1	4/17/2017 18:24
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/17/2017 18:24
beta-BHC	U		2.3	12	µg/Kg-dry	1	4/17/2017 18:24
Chlordane, Technical	U		12	31	µg/Kg-dry	1	4/17/2017 18:24
delta-BHC	U		6.4	12	µg/Kg-dry	1	4/17/2017 18:24
Dieldrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 18:24
Endosulfan I	U		2.0	12	µg/Kg-dry	1	4/17/2017 18:24
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/17/2017 18:24
Endosulfan sulfate	U		2.6	12	µg/Kg-dry	1	4/17/2017 18:24
Endrin	U		2.5	12	µg/Kg-dry	1	4/17/2017 18:24
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/17/2017 18:24
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/17/2017 18:24
gamma-BHC (Lindane)	U		3.0	12	µg/Kg-dry	1	4/17/2017 18:24
gamma-Chlordane	U		2.8	12	µg/Kg-dry	1	4/17/2017 18:24
Heptachlor	U		3.5	12	µg/Kg-dry	1	4/17/2017 18:24
Heptachlor epoxide	U		2.3	12	µg/Kg-dry	1	4/17/2017 18:24
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/17/2017 18:24
Toxaphene	U		13	74	µg/Kg-dry	1	4/17/2017 18:24
Surr: Decachlorobiphenyl	*75.5*			*50-150*	*%REC*	1	4/17/2017 18:24
Surr: Tetrachloro-m-xylene	*85.8*			*50-150*	*%REC*	1	4/17/2017 18:24
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 15 (4-6) - 041017
Collection Date: 4/10/2017 10:45 AM

Work Order: 1704626
Lab ID: 1704626-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.038**		**0.0029**	**0.018**	**mg/Kg-dry**	1	4/18/2017 19:25
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/17/17		Analyst: **JF**
Arsenic	**5.6**		**0.29**	**1.9**	**mg/Kg-dry**	4	4/19/2017 14:46
Barium	**85**		**0.27**	**1.9**	**mg/Kg-dry**	4	4/19/2017 14:46
Cadmium	U		0.016	0.78	mg/Kg-dry	4	4/19/2017 14:46
Chromium	**29**		**0.094**	**1.9**	**mg/Kg-dry**	4	4/19/2017 14:46
Lead	**13**		**0.031**	**1.9**	**mg/Kg-dry**	4	4/19/2017 14:46
Selenium	**2.1**		**0.58**	**1.9**	**mg/Kg-dry**	4	4/19/2017 14:46
Silver	**0.075**	J	**0.016**	**1.9**	**mg/Kg-dry**	4	4/19/2017 14:46
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/17/17		Analyst: **RM**
2-Chloronaphthalene	U		5.1	51	µg/Kg-dry	1	4/19/2017 08:01
2-Methylnaphthalene	U		8.4	51	µg/Kg-dry	1	4/19/2017 08:01
Acenaphthene	U		3.6	51	µg/Kg-dry	1	4/19/2017 08:01
Acenaphthylene	U		4.5	51	µg/Kg-dry	1	4/19/2017 08:01
Anthracene	U		1.9	51	µg/Kg-dry	1	4/19/2017 08:01
Benzo(a)anthracene	U		3.1	51	µg/Kg-dry	1	4/19/2017 08:01
Benzo(a)pyrene	U		1.3	51	µg/Kg-dry	1	4/19/2017 08:01
Benzo(b)fluoranthene	U		2.0	51	µg/Kg-dry	1	4/19/2017 08:01
Benzo(g,h,i)perylene	U		3.4	51	µg/Kg-dry	1	4/19/2017 08:01
Benzo(k)fluoranthene	U		2.7	51	µg/Kg-dry	1	4/19/2017 08:01
Chrysene	U		2.0	51	µg/Kg-dry	1	4/19/2017 08:01
Dibenzo(a,h)anthracene	U		1.7	51	µg/Kg-dry	1	4/19/2017 08:01
Fluoranthene	U		1.5	51	µg/Kg-dry	1	4/19/2017 08:01
Fluorene	U		1.7	51	µg/Kg-dry	1	4/19/2017 08:01
Indeno(1,2,3-cd)pyrene	U		1.6	51	µg/Kg-dry	1	4/19/2017 08:01
Naphthalene	U		9.6	51	µg/Kg-dry	1	4/19/2017 08:01
Phenanthrene	U		1.8	51	µg/Kg-dry	1	4/19/2017 08:01
Pyrene	U		1.9	51	µg/Kg-dry	1	4/19/2017 08:01
Surr: 2-Fluorobiphenyl	*65.3*			*20-140*	*%REC*	1	4/19/2017 08:01
Surr: 4-Terphenyl-d14	*67.5*			*22-172*	*%REC*	1	4/19/2017 08:01
Surr: Nitrobenzene-d5	*59.7*			*8-140*	*%REC*	1	4/19/2017 08:01
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **EMR**
1,1,1-Trichloroethane	U		0.14	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
1,1,2,2-Tetrachloroethane	U		0.10	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
1,1,2-Trichloroethane	U		0.55	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
1,1-Dichloroethane	U		0.12	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
1,1-Dichloroethene	U		0.15	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
1,2-Dichloroethane	U		0.14	4.4	µg/Kg-dry	0.718	4/14/2017 15:08

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 15 (4-6) - 041017
Collection Date: 4/10/2017 10:45 AM

Work Order: 1704626
Lab ID: 1704626-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		0.32	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
2-Butanone	U		0.75	8.9	µg/Kg-dry	0.718	4/14/2017 15:08
2-Hexanone	U		0.59	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
4-Methyl-2-pentanone	U		0.16	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Acetone	**18**		**1.3**	**8.9**	**µg/Kg-dry**	0.718	4/14/2017 15:08
Benzene	**3.0**	J	**0.086**	**4.4**	**µg/Kg-dry**	0.718	4/14/2017 15:08
Bromodichloromethane	U		0.096	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Bromoform	U		0.13	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Bromomethane	U		0.27	8.9	µg/Kg-dry	0.718	4/14/2017 15:08
Carbon disulfide	**3.9**	J	**0.17**	**4.4**	**µg/Kg-dry**	0.718	4/14/2017 15:08
Carbon tetrachloride	U		0.21	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Chlorobenzene	U		0.14	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Chloroethane	U		0.47	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Chloroform	U		0.18	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Chloromethane	U		0.23	8.9	µg/Kg-dry	0.718	4/14/2017 15:08
cis-1,2-Dichloroethene	U		0.11	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
cis-1,3-Dichloropropene	U		0.10	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Dibromochloromethane	U		0.13	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Ethylbenzene	**1.3**	J	**0.10**	**4.4**	**µg/Kg-dry**	0.718	4/14/2017 15:08
Methyl tert-butyl ether	U		0.16	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Methylene chloride	U		0.12	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Styrene	U		0.26	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Tetrachloroethene	**2.9**	J	**0.20**	**4.4**	**µg/Kg-dry**	0.718	4/14/2017 15:08
Toluene	**4.9**		**0.11**	**4.4**	**µg/Kg-dry**	0.718	4/14/2017 15:08
trans-1,2-Dichloroethene	U		0.21	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
trans-1,3-Dichloropropene	U		0.14	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Trichloroethene	U		0.17	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Vinyl chloride	U		0.15	4.4	µg/Kg-dry	0.718	4/14/2017 15:08
Xylenes, Total	**2.8**	J	**0.48**	**4.4**	**µg/Kg-dry**	0.718	4/14/2017 15:08
Surr: 1,2-Dichloroethane-d4	*117*			*70-120*	*%REC*	0.718	4/14/2017 15:08
Surr: 4-Bromofluorobenzene	*97.0*			*75-120*	*%REC*	0.718	4/14/2017 15:08
Surr: Dibromofluoromethane	*104*			*85-115*	*%REC*	0.718	4/14/2017 15:08
Surr: Toluene-d8	*95.4*			*85-120*	*%REC*	0.718	4/14/2017 15:08

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**19**		**0.025**	**0.050**	**% of sample**	1	4/13/2017 18:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 16 (2-4) - 041017
Collection Date: 4/10/2017 10:55 AM

Work Order: 1704626
Lab ID: 1704626-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		11	81	µg/Kg-dry	1	4/17/2017 19:26
Aroclor 1221	U		11	81	µg/Kg-dry	1	4/17/2017 19:26
Aroclor 1232	U		11	81	µg/Kg-dry	1	4/17/2017 19:26
Aroclor 1242	U		11	81	µg/Kg-dry	1	4/17/2017 19:26
Aroclor 1248	U		11	81	µg/Kg-dry	1	4/17/2017 19:26
Aroclor 1254	U		7.3	81	µg/Kg-dry	1	4/17/2017 19:26
Aroclor 1260	U		7.3	81	µg/Kg-dry	1	4/17/2017 19:26
Aroclor 1262	U		7.3	81	µg/Kg-dry	1	4/17/2017 19:26
Aroclor 1268	U		7.3	81	µg/Kg-dry	1	4/17/2017 19:26
Surr: Decachlorobiphenyl	*57.7*			*40-140*	*%REC*	1	4/17/2017 19:26
Surr: Tetrachloro-m-xylene	*80.0*			*45-124*	*%REC*	1	4/17/2017 19:26
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.7	13	µg/Kg-dry	1	4/17/2017 18:37
4,4´-DDE	U		2.4	13	µg/Kg-dry	1	4/17/2017 18:37
4,4´-DDT	U		2.0	13	µg/Kg-dry	1	4/17/2017 18:37
Aldrin	U		2.5	13	µg/Kg-dry	1	4/17/2017 18:37
alpha-BHC	U		2.4	13	µg/Kg-dry	1	4/17/2017 18:37
alpha-Chlordane	U		2.4	13	µg/Kg-dry	1	4/17/2017 18:37
beta-BHC	U		2.3	13	µg/Kg-dry	1	4/17/2017 18:37
Chlordane, Technical	U		12	31	µg/Kg-dry	1	4/17/2017 18:37
delta-BHC	U		6.5	13	µg/Kg-dry	1	4/17/2017 18:37
Dieldrin	U		2.4	13	µg/Kg-dry	1	4/17/2017 18:37
Endosulfan I	U		2.0	13	µg/Kg-dry	1	4/17/2017 18:37
Endosulfan II	U		2.4	13	µg/Kg-dry	1	4/17/2017 18:37
Endosulfan sulfate	U		2.6	13	µg/Kg-dry	1	4/17/2017 18:37
Endrin	U		2.6	13	µg/Kg-dry	1	4/17/2017 18:37
Endrin aldehyde	U		2.2	13	µg/Kg-dry	1	4/17/2017 18:37
Endrin ketone	U		2.4	13	µg/Kg-dry	1	4/17/2017 18:37
gamma-BHC (Lindane)	U		3.0	13	µg/Kg-dry	1	4/17/2017 18:37
gamma-Chlordane	U		2.8	13	µg/Kg-dry	1	4/17/2017 18:37
Heptachlor	U		3.5	13	µg/Kg-dry	1	4/17/2017 18:37
Heptachlor epoxide	U		2.3	13	µg/Kg-dry	1	4/17/2017 18:37
Methoxychlor	U		2.2	13	µg/Kg-dry	1	4/17/2017 18:37
Toxaphene	U		14	75	µg/Kg-dry	1	4/17/2017 18:37
Surr: Decachlorobiphenyl	*55.8*			*50-150*	*%REC*	1	4/17/2017 18:37
Surr: Tetrachloro-m-xylene	*84.5*			*50-150*	*%REC*	1	4/17/2017 18:37
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 16 (2-4) - 041017
Collection Date: 4/10/2017 10:55 AM

Work Order: 1704626
Lab ID: 1704626-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.057**		**0.0030**	**0.018**	**mg/Kg-dry**	1	4/18/2017 19:35
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**5.5**		**0.30**	**2.0**	**mg/Kg-dry**	4	4/18/2017 22:50
Barium	**170**		**0.28**	**2.0**	**mg/Kg-dry**	4	4/18/2017 22:50
Cadmium	**0.17**	J	**0.016**	**0.81**	**mg/Kg-dry**	4	4/18/2017 22:50
Chromium	**23**		**0.097**	**2.0**	**mg/Kg-dry**	4	4/18/2017 22:50
Lead	**14**		**0.032**	**2.0**	**mg/Kg-dry**	4	4/18/2017 22:50
Selenium	**2.3**		**0.48**	**1.6**	**mg/Kg-dry**	4	4/21/2017 06:34
Silver	**0.075**	J	**0.016**	**2.0**	**mg/Kg-dry**	4	4/18/2017 22:50
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/17/17		Analyst: **RM**
2-Chloronaphthalene	U		5.1	51	µg/Kg-dry	1	4/19/2017 08:27
2-Methylnaphthalene	U		8.4	51	µg/Kg-dry	1	4/19/2017 08:27
Acenaphthene	U		3.6	51	µg/Kg-dry	1	4/19/2017 08:27
Acenaphthylene	U		4.5	51	µg/Kg-dry	1	4/19/2017 08:27
Anthracene	U		1.9	51	µg/Kg-dry	1	4/19/2017 08:27
Benzo(a)anthracene	U		3.2	51	µg/Kg-dry	1	4/19/2017 08:27
Benzo(a)pyrene	U		1.3	51	µg/Kg-dry	1	4/19/2017 08:27
Benzo(b)fluoranthene	U		2.0	51	µg/Kg-dry	1	4/19/2017 08:27
Benzo(g,h,i)perylene	U		3.4	51	µg/Kg-dry	1	4/19/2017 08:27
Benzo(k)fluoranthene	U		2.7	51	µg/Kg-dry	1	4/19/2017 08:27
Chrysene	U		2.0	51	µg/Kg-dry	1	4/19/2017 08:27
Dibenzo(a,h)anthracene	U		1.7	51	µg/Kg-dry	1	4/19/2017 08:27
Fluoranthene	U		1.5	51	µg/Kg-dry	1	4/19/2017 08:27
Fluorene	U		1.7	51	µg/Kg-dry	1	4/19/2017 08:27
Indeno(1,2,3-cd)pyrene	U		1.6	51	µg/Kg-dry	1	4/19/2017 08:27
Naphthalene	U		9.6	51	µg/Kg-dry	1	4/19/2017 08:27
Phenanthrene	U		1.8	51	µg/Kg-dry	1	4/19/2017 08:27
Pyrene	U		1.9	51	µg/Kg-dry	1	4/19/2017 08:27
Surr: 2-Fluorobiphenyl	*67.0*			*20-140*	*%REC*	1	4/19/2017 08:27
Surr: 4-Terphenyl-d14	*70.7*			*22-172*	*%REC*	1	4/19/2017 08:27
Surr: Nitrobenzene-d5	*60.1*			*8-140*	*%REC*	1	4/19/2017 08:27
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		13	45	µg/Kg-dry	1	4/14/2017 12:36
1,1,2,2-Tetrachloroethane	U		11	45	µg/Kg-dry	1	4/14/2017 12:36
1,1,2-Trichloroethane	U		13	45	µg/Kg-dry	1	4/14/2017 12:36
1,1-Dichloroethane	U		11	45	µg/Kg-dry	1	4/14/2017 12:36
1,1-Dichloroethene	U		12	45	µg/Kg-dry	1	4/14/2017 12:36
1,2-Dichloroethane	U		12	45	µg/Kg-dry	1	4/14/2017 12:36

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 16 (2-4) - 041017
Collection Date: 4/10/2017 10:55 AM

Work Order: 1704626
Lab ID: 1704626-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	45	µg/Kg-dry	1	4/14/2017 12:36
2-Butanone	U		61	300	µg/Kg-dry	1	4/14/2017 12:36
2-Hexanone	U		30	45	µg/Kg-dry	1	4/14/2017 12:36
4-Methyl-2-pentanone	U		33	45	µg/Kg-dry	1	4/14/2017 12:36
Acetone	U		82	150	µg/Kg-dry	1	4/14/2017 12:36
Benzene	U		10	45	µg/Kg-dry	1	4/14/2017 12:36
Bromodichloromethane	U		12	45	µg/Kg-dry	1	4/14/2017 12:36
Bromoform	U		16	45	µg/Kg-dry	1	4/14/2017 12:36
Bromomethane	U		20	110	µg/Kg-dry	1	4/14/2017 12:36
Carbon disulfide	U		15	45	µg/Kg-dry	1	4/14/2017 12:36
Carbon tetrachloride	U		8.0	45	µg/Kg-dry	1	4/14/2017 12:36
Chlorobenzene	U		14	45	µg/Kg-dry	1	4/14/2017 12:36
Chloroethane	U		29	150	µg/Kg-dry	1	4/14/2017 12:36
Chloroform	U		15	45	µg/Kg-dry	1	4/14/2017 12:36
cis-1,2-Dichloroethene	U		13	45	µg/Kg-dry	1	4/14/2017 12:36
cis-1,3-Dichloropropene	U		17	45	µg/Kg-dry	1	4/14/2017 12:36
Dibromochloromethane	U		10	45	µg/Kg-dry	1	4/14/2017 12:36
Ethylbenzene	U		10	45	µg/Kg-dry	1	4/14/2017 12:36
Methyl tert-butyl ether	U		15	45	µg/Kg-dry	1	4/14/2017 12:36
Methylene chloride	**44**	J	**21**	**45**	**µg/Kg-dry**	1	4/14/2017 12:36
Styrene	U		32	45	µg/Kg-dry	1	4/14/2017 12:36
Tetrachloroethene	U		22	45	µg/Kg-dry	1	4/14/2017 12:36
Toluene	U		15	45	µg/Kg-dry	1	4/14/2017 12:36
trans-1,2-Dichloroethene	U		13	45	µg/Kg-dry	1	4/14/2017 12:36
trans-1,3-Dichloropropene	U		8.0	45	µg/Kg-dry	1	4/14/2017 12:36
Trichloroethene	U		12	45	µg/Kg-dry	1	4/14/2017 12:36
Vinyl chloride	U		14	45	µg/Kg-dry	1	4/14/2017 12:36
Xylenes, Total	U		35	140	µg/Kg-dry	1	4/14/2017 12:36
Surr: 1,2-Dichloroethane-d4	*108*			*70-130*	*%REC*	1	4/14/2017 12:36
Surr: 4-Bromofluorobenzene	*92.8*			*70-130*	*%REC*	1	4/14/2017 12:36
Surr: Dibromofluoromethane	*105*			*70-130*	*%REC*	1	4/14/2017 12:36
Surr: Toluene-d8	*95.8*			*70-130*	*%REC*	1	4/14/2017 12:36
MOISTURE			Method: **SW3550C**				Analyst: **EDL**
Moisture	**20**		**0.025**	**0.050**	**% of sample**	1	4/13/2017 18:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 14 (4-6) - 041017
Collection Date: 4/10/2017 11:20 AM

Work Order: 1704626
Lab ID: 1704626-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		10	80	µg/Kg-dry	1	4/17/2017 19:41
Aroclor 1221	U		10	80	µg/Kg-dry	1	4/17/2017 19:41
Aroclor 1232	U		10	80	µg/Kg-dry	1	4/17/2017 19:41
Aroclor 1242	U		10	80	µg/Kg-dry	1	4/17/2017 19:41
Aroclor 1248	U		10	80	µg/Kg-dry	1	4/17/2017 19:41
Aroclor 1254	U		7.3	80	µg/Kg-dry	1	4/17/2017 19:41
Aroclor 1260	U		7.3	80	µg/Kg-dry	1	4/17/2017 19:41
Aroclor 1262	U		7.3	80	µg/Kg-dry	1	4/17/2017 19:41
Aroclor 1268	U		7.3	80	µg/Kg-dry	1	4/17/2017 19:41
Surr: Decachlorobiphenyl	*73.3*			*40-140*	*%REC*	1	4/17/2017 19:41
Surr: Tetrachloro-m-xylene	*75.9*			*45-124*	*%REC*	1	4/17/2017 19:41
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.7	12	µg/Kg-dry	1	4/17/2017 19:30
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/17/2017 19:30
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/17/2017 19:30
Aldrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 19:30
alpha-BHC	U		2.4	12	µg/Kg-dry	1	4/17/2017 19:30
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/17/2017 19:30
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/17/2017 19:30
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/17/2017 19:30
delta-BHC	U		6.3	12	µg/Kg-dry	1	4/17/2017 19:30
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 19:30
Endosulfan I	U		2.0	12	µg/Kg-dry	1	4/17/2017 19:30
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/17/2017 19:30
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/17/2017 19:30
Endrin	U		2.5	12	µg/Kg-dry	1	4/17/2017 19:30
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/17/2017 19:30
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/17/2017 19:30
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/17/2017 19:30
gamma-Chlordane	U		2.8	12	µg/Kg-dry	1	4/17/2017 19:30
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/17/2017 19:30
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/17/2017 19:30
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/17/2017 19:30
Toxaphene	U		13	73	µg/Kg-dry	1	4/17/2017 19:30
Surr: Decachlorobiphenyl	*74.4*			*50-150*	*%REC*	1	4/17/2017 19:30
Surr: Tetrachloro-m-xylene	*78.3*			*50-150*	*%REC*	1	4/17/2017 19:30
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 14 (4-6) - 041017
Collection Date: 4/10/2017 11:20 AM

Work Order: 1704626
Lab ID: 1704626-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.054**		**0.0031**	**0.019**	**mg/Kg-dry**	1	4/18/2017 19:37
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**4.8**		**0.27**	**1.8**	**mg/Kg-dry**	4	4/18/2017 22:57
Barium	**84**		**0.25**	**1.8**	**mg/Kg-dry**	4	4/18/2017 22:57
Cadmium	**0.040**	J	**0.014**	**0.72**	**mg/Kg-dry**	4	4/18/2017 22:57
Chromium	**24**		**0.086**	**1.8**	**mg/Kg-dry**	4	4/18/2017 22:57
Lead	**20**		**0.029**	**1.8**	**mg/Kg-dry**	4	4/18/2017 22:57
Selenium	**1.4**	J	**0.59**	**2.0**	**mg/Kg-dry**	4	4/21/2017 06:40
Silver	**0.057**	J	**0.014**	**1.8**	**mg/Kg-dry**	4	4/18/2017 22:57
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/17/17		Analyst: **RM**
2-Chloronaphthalene	U		5.0	50	µg/Kg-dry	1	4/19/2017 08:53
2-Methylnaphthalene	U		8.2	50	µg/Kg-dry	1	4/19/2017 08:53
Acenaphthene	U		3.6	50	µg/Kg-dry	1	4/19/2017 08:53
Acenaphthylene	U		4.4	50	µg/Kg-dry	1	4/19/2017 08:53
Anthracene	U		1.8	50	µg/Kg-dry	1	4/19/2017 08:53
Benzo(a)anthracene	U		3.1	50	µg/Kg-dry	1	4/19/2017 08:53
Benzo(a)pyrene	U		1.3	50	µg/Kg-dry	1	4/19/2017 08:53
Benzo(b)fluoranthene	U		1.9	50	µg/Kg-dry	1	4/19/2017 08:53
Benzo(g,h,i)perylene	U		3.4	50	µg/Kg-dry	1	4/19/2017 08:53
Benzo(k)fluoranthene	U		2.6	50	µg/Kg-dry	1	4/19/2017 08:53
Chrysene	U		1.9	50	µg/Kg-dry	1	4/19/2017 08:53
Dibenzo(a,h)anthracene	U		1.6	50	µg/Kg-dry	1	4/19/2017 08:53
Fluoranthene	U		1.4	50	µg/Kg-dry	1	4/19/2017 08:53
Fluorene	U		1.6	50	µg/Kg-dry	1	4/19/2017 08:53
Indeno(1,2,3-cd)pyrene	U		1.5	50	µg/Kg-dry	1	4/19/2017 08:53
Naphthalene	U		9.4	50	µg/Kg-dry	1	4/19/2017 08:53
Phenanthrene	U		1.7	50	µg/Kg-dry	1	4/19/2017 08:53
Pyrene	U		1.8	50	µg/Kg-dry	1	4/19/2017 08:53
Surr: 2-Fluorobiphenyl	*65.9*			*20-140*	*%REC*	1	4/19/2017 08:53
Surr: 4-Terphenyl-d14	*69.3*			*22-172*	*%REC*	1	4/19/2017 08:53
Surr: Nitrobenzene-d5	*61.0*			*8-140*	*%REC*	1	4/19/2017 08:53
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **EMR**
1,1,1-Trichloroethane	U		0.16	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
1,1,2,2-Tetrachloroethane	U		0.12	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
1,1,2-Trichloroethane	U		0.65	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
1,1-Dichloroethane	U		0.14	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
1,1-Dichloroethene	U		0.18	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
1,2-Dichloroethane	U		0.16	5.3	µg/Kg-dry	0.864	4/14/2017 18:06

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 14 (4-6) - 041017
Collection Date: 4/10/2017 11:20 AM

Work Order: 1704626
Lab ID: 1704626-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		0.37	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
2-Butanone	U		0.89	11	µg/Kg-dry	0.864	4/14/2017 18:06
2-Hexanone	U		0.70	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
4-Methyl-2-pentanone	U		0.19	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Acetone	**54**		**1.6**	**11**	**µg/Kg-dry**	0.864	4/14/2017 18:06
Benzene	**0.46**	J	**0.10**	**5.3**	**µg/Kg-dry**	0.864	4/14/2017 18:06
Bromodichloromethane	U		0.11	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Bromoform	U		0.15	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Bromomethane	U		0.32	11	µg/Kg-dry	0.864	4/14/2017 18:06
Carbon disulfide	**1.8**	J	**0.20**	**5.3**	**µg/Kg-dry**	0.864	4/14/2017 18:06
Carbon tetrachloride	U		0.25	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Chlorobenzene	U		0.17	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Chloroethane	U		0.55	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Chloroform	U		0.21	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Chloromethane	U		0.27	11	µg/Kg-dry	0.864	4/14/2017 18:06
cis-1,2-Dichloroethene	U		0.13	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
cis-1,3-Dichloropropene	U		0.12	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Dibromochloromethane	U		0.15	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Ethylbenzene	U		0.12	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Methyl tert-butyl ether	U		0.19	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Methylene chloride	U		0.14	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Styrene	U		0.31	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Tetrachloroethene	U		0.23	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Toluene	**0.40**	J	**0.13**	**5.3**	**µg/Kg-dry**	0.864	4/14/2017 18:06
trans-1,2-Dichloroethene	U		0.25	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
trans-1,3-Dichloropropene	U		0.17	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Trichloroethene	U		0.20	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Vinyl chloride	U		0.17	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Xylenes, Total	U		0.57	5.3	µg/Kg-dry	0.864	4/14/2017 18:06
Surr: 1,2-Dichloroethane-d4	*116*			*70-120*	*%REC*	0.864	4/14/2017 18:06
Surr: 4-Bromofluorobenzene	*99.8*			*75-120*	*%REC*	0.864	4/14/2017 18:06
Surr: Dibromofluoromethane	*107*			*85-115*	*%REC*	0.864	4/14/2017 18:06
Surr: Toluene-d8	*96.6*			*85-120*	*%REC*	0.864	4/14/2017 18:06

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**18**	**0.025**	**0.050**	**% of sample**	1	4/13/2017 18:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 26 (2-4) - 041017
Collection Date: 4/10/2017 11:35 AM

Work Order: 1704626
Lab ID: 1704626-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		10	78	µg/Kg-dry	1	4/17/2017 20:24
Aroclor 1221	U		10	78	µg/Kg-dry	1	4/17/2017 20:24
Aroclor 1232	U		10	78	µg/Kg-dry	1	4/17/2017 20:24
Aroclor 1242	U		10	78	µg/Kg-dry	1	4/17/2017 20:24
Aroclor 1248	U		10	78	µg/Kg-dry	1	4/17/2017 20:24
Aroclor 1254	**51**	J	**7.0**	**78**	**µg/Kg-dry**	1	4/17/2017 20:24
Aroclor 1260	U		7.0	78	µg/Kg-dry	1	4/17/2017 20:24
Aroclor 1262	U		7.0	78	µg/Kg-dry	1	4/17/2017 20:24
Aroclor 1268	U		7.0	78	µg/Kg-dry	1	4/17/2017 20:24
Surr: Decachlorobiphenyl	*52.7*			*40-140*	*%REC*	1	4/17/2017 20:24
Surr: Tetrachloro-m-xylene	*65.3*			*45-124*	*%REC*	1	4/17/2017 20:24
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		13	60	µg/Kg-dry	5	4/17/2017 19:43
4,4´-DDE	U		12	60	µg/Kg-dry	5	4/17/2017 19:43
4,4´-DDT	U		9.5	60	µg/Kg-dry	5	4/17/2017 19:43
Aldrin	U		12	60	µg/Kg-dry	5	4/17/2017 19:43
alpha-BHC	U		12	60	µg/Kg-dry	5	4/17/2017 19:43
alpha-Chlordane	U		11	60	µg/Kg-dry	5	4/17/2017 19:43
beta-BHC	U		11	60	µg/Kg-dry	5	4/17/2017 19:43
Chlordane, Technical	U		59	150	µg/Kg-dry	5	4/17/2017 19:43
delta-BHC	U		31	60	µg/Kg-dry	5	4/17/2017 19:43
Dieldrin	U		11	60	µg/Kg-dry	5	4/17/2017 19:43
Endosulfan I	U		9.6	60	µg/Kg-dry	5	4/17/2017 19:43
Endosulfan II	U		11	60	µg/Kg-dry	5	4/17/2017 19:43
Endosulfan sulfate	U		12	60	µg/Kg-dry	5	4/17/2017 19:43
Endrin	U		12	60	µg/Kg-dry	5	4/17/2017 19:43
Endrin aldehyde	U		10	60	µg/Kg-dry	5	4/17/2017 19:43
Endrin ketone	U		11	60	µg/Kg-dry	5	4/17/2017 19:43
gamma-BHC (Lindane)	U		14	60	µg/Kg-dry	5	4/17/2017 19:43
gamma-Chlordane	U		14	60	µg/Kg-dry	5	4/17/2017 19:43
Heptachlor	U		17	60	µg/Kg-dry	5	4/17/2017 19:43
Heptachlor epoxide	U		11	60	µg/Kg-dry	5	4/17/2017 19:43
Methoxychlor	U		10	60	µg/Kg-dry	5	4/17/2017 19:43
Toxaphene	U		65	360	µg/Kg-dry	5	4/17/2017 19:43
Surr: Decachlorobiphenyl	*78.5*			*50-150*	*%REC*	5	4/17/2017 19:43
Surr: Tetrachloro-m-xylene	*76.8*			*50-150*	*%REC*	5	4/17/2017 19:43
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 26 (2-4) - 041017
Collection Date: 4/10/2017 11:35 AM

Work Order: 1704626
Lab ID: 1704626-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.38**		**0.0061**	**0.037**	**mg/Kg-dry**	2	4/19/2017 13:21
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**4.6**		**0.29**	**1.9**	**mg/Kg-dry**	4	4/18/2017 23:03
Barium	**120**		**0.27**	**1.9**	**mg/Kg-dry**	4	4/18/2017 23:03
Cadmium	**0.17**	J	**0.015**	**0.77**	**mg/Kg-dry**	4	4/18/2017 23:03
Chromium	**17**		**0.093**	**1.9**	**mg/Kg-dry**	4	4/18/2017 23:03
Lead	**54**		**0.031**	**1.9**	**mg/Kg-dry**	4	4/18/2017 23:03
Selenium	**0.98**	J	**0.56**	**1.9**	**mg/Kg-dry**	4	4/21/2017 06:46
Silver	**0.084**	J	**0.015**	**1.9**	**mg/Kg-dry**	4	4/18/2017 23:03
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/17/17		Analyst: **RM**
2-Chloronaphthalene	U		4.8	48	µg/Kg-dry	1	4/19/2017 09:20
2-Methylnaphthalene	**130**		**7.9**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Acenaphthene	**84**		**3.4**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Acenaphthylene	**87**		**4.3**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Anthracene	**290**		**1.8**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Benzo(a)anthracene	**1,100**		**3.0**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Benzo(a)pyrene	**490**		**1.2**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Benzo(b)fluoranthene	**1,300**		**1.9**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Benzo(g,h,i)perylene	**110**		**3.2**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Benzo(k)fluoranthene	**350**		**2.5**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Chrysene	**880**		**1.9**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Dibenzo(a,h)anthracene	**180**		**1.6**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Fluoranthene	**1,900**		**1.4**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Fluorene	**91**		**1.6**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Indeno(1,2,3-cd)pyrene	**180**		**1.5**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Naphthalene	**120**		**9.1**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Phenanthrene	**1,100**		**1.7**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Pyrene	**2,200**		**1.8**	**48**	**µg/Kg-dry**	1	4/19/2017 09:20
Surr: 2-Fluorobiphenyl	*77.3*			*20-140*	*%REC*	1	4/19/2017 09:20
Surr: 4-Terphenyl-d14	*61.6*			*22-172*	*%REC*	1	4/19/2017 09:20
Surr: Nitrobenzene-d5	*64.4*			*8-140*	*%REC*	1	4/19/2017 09:20
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 01:27
1,1,2,2-Tetrachloroethane	U		10	41	µg/Kg-dry	1	4/14/2017 01:27
1,1,2-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 01:27
1,1-Dichloroethane	U		11	41	µg/Kg-dry	1	4/14/2017 01:27
1,1-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 01:27
1,2-Dichloroethane	U		11	41	µg/Kg-dry	1	4/14/2017 01:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 26 (2-4) - 041017
Collection Date: 4/10/2017 11:35 AM

Work Order: 1704626
Lab ID: 1704626-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	41	µg/Kg-dry	1	4/14/2017 01:27
2-Butanone	U		56	280	µg/Kg-dry	1	4/14/2017 01:27
2-Hexanone	U		27	41	µg/Kg-dry	1	4/14/2017 01:27
4-Methyl-2-pentanone	U		30	41	µg/Kg-dry	1	4/14/2017 01:27
Acetone	U		75	140	µg/Kg-dry	1	4/14/2017 01:27
Benzene	U		9.4	41	µg/Kg-dry	1	4/14/2017 01:27
Bromodichloromethane	U		11	41	µg/Kg-dry	1	4/14/2017 01:27
Bromoform	U		15	41	µg/Kg-dry	1	4/14/2017 01:27
Bromomethane	U		18	100	µg/Kg-dry	1	4/14/2017 01:27
Carbon disulfide	U		14	41	µg/Kg-dry	1	4/14/2017 01:27
Carbon tetrachloride	U		7.3	41	µg/Kg-dry	1	4/14/2017 01:27
Chlorobenzene	U		12	41	µg/Kg-dry	1	4/14/2017 01:27
Chloroethane	U		26	140	µg/Kg-dry	1	4/14/2017 01:27
Chloroform	U		14	41	µg/Kg-dry	1	4/14/2017 01:27
cis-1,2-Dichloroethene	U		12	41	µg/Kg-dry	1	4/14/2017 01:27
cis-1,3-Dichloropropene	U		16	41	µg/Kg-dry	1	4/14/2017 01:27
Dibromochloromethane	U		9.4	41	µg/Kg-dry	1	4/14/2017 01:27
Ethylbenzene	**64**		**9.7**	**41**	**µg/Kg-dry**	1	4/14/2017 01:27
Methyl tert-butyl ether	U		13	41	µg/Kg-dry	1	4/14/2017 01:27
Methylene chloride	**64**		**19**	**41**	**µg/Kg-dry**	1	4/14/2017 01:27
Styrene	U		29	41	µg/Kg-dry	1	4/14/2017 01:27
Tetrachloroethene	U		20	41	µg/Kg-dry	1	4/14/2017 01:27
Toluene	**52**		**14**	**41**	**µg/Kg-dry**	1	4/14/2017 01:27
trans-1,2-Dichloroethene	U		12	41	µg/Kg-dry	1	4/14/2017 01:27
trans-1,3-Dichloropropene	U		7.4	41	µg/Kg-dry	1	4/14/2017 01:27
Trichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 01:27
Vinyl chloride	U		13	41	µg/Kg-dry	1	4/14/2017 01:27
Xylenes, Total	**260**		**32**	**120**	**µg/Kg-dry**	1	4/14/2017 01:27
Surr: 1,2-Dichloroethane-d4	*113*			*70-130*	*%REC*	1	4/14/2017 01:27
Surr: 4-Bromofluorobenzene	*102*			*70-130*	*%REC*	1	4/14/2017 01:27
Surr: Dibromofluoromethane	*107*			*70-130*	*%REC*	1	4/14/2017 01:27
Surr: Toluene-d8	*93.8*			*70-130*	*%REC*	1	4/14/2017 01:27
MOISTURE		Method:	**SW3550C**				Analyst: **EDL**
Moisture	**16**		**0.025**	**0.050**	**% of sample**	1	4/13/2017 18:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 26 (4-6) - 041017
Collection Date: 4/10/2017 11:40 AM

Work Order: 1704626
Lab ID: 1704626-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		10	77	µg/Kg-dry	1	4/17/2017 20:38
Aroclor 1221	U		10	77	µg/Kg-dry	1	4/17/2017 20:38
Aroclor 1232	U		10	77	µg/Kg-dry	1	4/17/2017 20:38
Aroclor 1242	U		10	77	µg/Kg-dry	1	4/17/2017 20:38
Aroclor 1248	U		10	77	µg/Kg-dry	1	4/17/2017 20:38
Aroclor 1254	**13**	J	**7.0**	**77**	**µg/Kg-dry**	1	4/17/2017 20:38
Aroclor 1260	U		7.0	77	µg/Kg-dry	1	4/17/2017 20:38
Aroclor 1262	U		7.0	77	µg/Kg-dry	1	4/17/2017 20:38
Aroclor 1268	U		7.0	77	µg/Kg-dry	1	4/17/2017 20:38
Surr: Decachlorobiphenyl	*46.0*			*40-140*	*%REC*	1	4/17/2017 20:38
Surr: Tetrachloro-m-xylene	*75.7*			*45-124*	*%REC*	1	4/17/2017 20:38
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.6	12	µg/Kg-dry	1	4/17/2017 19:57
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/17/2017 19:57
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/17/2017 19:57
Aldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 19:57
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/17/2017 19:57
alpha-Chlordane	U		2.2	12	µg/Kg-dry	1	4/17/2017 19:57
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/17/2017 19:57
Chlordane, Technical	U		12	29	µg/Kg-dry	1	4/17/2017 19:57
delta-BHC	U		6.1	12	µg/Kg-dry	1	4/17/2017 19:57
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 19:57
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/17/2017 19:57
Endosulfan II	U		2.2	12	µg/Kg-dry	1	4/17/2017 19:57
Endosulfan sulfate	U		2.4	12	µg/Kg-dry	1	4/17/2017 19:57
Endrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 19:57
Endrin aldehyde	U		2.0	12	µg/Kg-dry	1	4/17/2017 19:57
Endrin ketone	U		2.2	12	µg/Kg-dry	1	4/17/2017 19:57
gamma-BHC (Lindane)	U		2.8	12	µg/Kg-dry	1	4/17/2017 19:57
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/17/2017 19:57
Heptachlor	U		3.3	12	µg/Kg-dry	1	4/17/2017 19:57
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/17/2017 19:57
Methoxychlor	U		2.0	12	µg/Kg-dry	1	4/17/2017 19:57
Toxaphene	U		13	71	µg/Kg-dry	1	4/17/2017 19:57
Surr: Decachlorobiphenyl	*74.3*			*50-150*	*%REC*	1	4/17/2017 19:57
Surr: Tetrachloro-m-xylene	*75.9*			*50-150*	*%REC*	1	4/17/2017 19:57
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 26 (4-6) - 041017
Collection Date: 4/10/2017 11:40 AM

Work Order: 1704626
Lab ID: 1704626-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.50**		**0.015**	**0.089**	**mg/Kg-dry**	5	4/19/2017 13:24
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**2.4**		**0.25**	**1.7**	**mg/Kg-dry**	4	4/18/2017 23:09
Barium	**59**		**0.23**	**1.7**	**mg/Kg-dry**	4	4/18/2017 23:09
Cadmium	U		0.013	0.67	mg/Kg-dry	4	4/18/2017 23:09
Chromium	**16**		**0.080**	**1.7**	**mg/Kg-dry**	4	4/18/2017 23:09
Lead	**14**		**0.027**	**1.7**	**mg/Kg-dry**	4	4/18/2017 23:09
Selenium	**1.0**	J	**0.54**	**1.8**	**mg/Kg-dry**	4	4/21/2017 06:52
Silver	**0.053**	J	**0.013**	**1.7**	**mg/Kg-dry**	4	4/18/2017 23:09
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/17/17		Analyst: **RM**
2-Chloronaphthalene	U		4.7	47	µg/Kg-dry	1	4/19/2017 09:46
2-Methylnaphthalene	**110**		**7.6**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Acenaphthene	**51**		**3.3**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Acenaphthylene	**110**		**4.1**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Anthracene	**200**		**1.7**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Benzo(a)anthracene	**650**		**2.9**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Benzo(a)pyrene	**340**		**1.2**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Benzo(b)fluoranthene	**1,100**		**1.8**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Benzo(g,h,i)perylene	U		3.1	47	µg/Kg-dry	1	4/19/2017 09:46
Benzo(k)fluoranthene	**380**		**2.4**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Chrysene	**610**		**1.8**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Dibenzo(a,h)anthracene	U		1.5	47	µg/Kg-dry	1	4/19/2017 09:46
Fluoranthene	**1,400**		**1.3**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Fluorene	**53**		**1.5**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Indeno(1,2,3-cd)pyrene	U		1.4	47	µg/Kg-dry	1	4/19/2017 09:46
Naphthalene	**140**		**8.8**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Phenanthrene	**640**		**1.6**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Pyrene	**970**		**1.7**	**47**	**µg/Kg-dry**	1	4/19/2017 09:46
Surr: 2-Fluorobiphenyl	*70.7*			*20-140*	*%REC*	1	4/19/2017 09:46
Surr: 4-Terphenyl-d14	*68.5*			*22-172*	*%REC*	1	4/19/2017 09:46
Surr: Nitrobenzene-d5	*60.7*			*8-140*	*%REC*	1	4/19/2017 09:46
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 01:53
1,1,2,2-Tetrachloroethane	U		9.8	41	µg/Kg-dry	1	4/14/2017 01:53
1,1,2-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 01:53
1,1-Dichloroethane	U		10	41	µg/Kg-dry	1	4/14/2017 01:53
1,1-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 01:53
1,2-Dichloroethane	U		11	41	µg/Kg-dry	1	4/14/2017 01:53

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 26 (4-6) - 041017
Collection Date: 4/10/2017 11:40 AM

Work Order: 1704626
Lab ID: 1704626-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	41	µg/Kg-dry	1	4/14/2017 01:53
2-Butanone	U		55	270	µg/Kg-dry	1	4/14/2017 01:53
2-Hexanone	U		27	41	µg/Kg-dry	1	4/14/2017 01:53
4-Methyl-2-pentanone	U		30	41	µg/Kg-dry	1	4/14/2017 01:53
Acetone	U		74	140	µg/Kg-dry	1	4/14/2017 01:53
Benzene	U		9.2	41	µg/Kg-dry	1	4/14/2017 01:53
Bromodichloromethane	U		11	41	µg/Kg-dry	1	4/14/2017 01:53
Bromoform	U		14	41	µg/Kg-dry	1	4/14/2017 01:53
Bromomethane	U		18	100	µg/Kg-dry	1	4/14/2017 01:53
Carbon disulfide	U		14	41	µg/Kg-dry	1	4/14/2017 01:53
Carbon tetrachloride	U		7.2	41	µg/Kg-dry	1	4/14/2017 01:53
Chlorobenzene	U		12	41	µg/Kg-dry	1	4/14/2017 01:53
Chloroethane	U		26	140	µg/Kg-dry	1	4/14/2017 01:53
Chloroform	U		14	41	µg/Kg-dry	1	4/14/2017 01:53
cis-1,2-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 01:53
cis-1,3-Dichloropropene	U		16	41	µg/Kg-dry	1	4/14/2017 01:53
Dibromochloromethane	U		9.3	41	µg/Kg-dry	1	4/14/2017 01:53
Ethylbenzene	U		9.5	41	µg/Kg-dry	1	4/14/2017 01:53
Methyl tert-butyl ether	U		13	41	µg/Kg-dry	1	4/14/2017 01:53
Methylene chloride	**57**		**19**	**41**	**µg/Kg-dry**	1	4/14/2017 01:53
Styrene	U		29	41	µg/Kg-dry	1	4/14/2017 01:53
Tetrachloroethene	U		20	41	µg/Kg-dry	1	4/14/2017 01:53
Toluene	U		13	41	µg/Kg-dry	1	4/14/2017 01:53
trans-1,2-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 01:53
trans-1,3-Dichloropropene	U		7.3	41	µg/Kg-dry	1	4/14/2017 01:53
Trichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 01:53
Vinyl chloride	U		13	41	µg/Kg-dry	1	4/14/2017 01:53
Xylenes, Total	**60**	J	**31**	**120**	**µg/Kg-dry**	1	4/14/2017 01:53
Surr: 1,2-Dichloroethane-d4	*111*			*70-130*	*%REC*	1	4/14/2017 01:53
Surr: 4-Bromofluorobenzene	*99.3*			*70-130*	*%REC*	1	4/14/2017 01:53
Surr: Dibromofluoromethane	*105*			*70-130*	*%REC*	1	4/14/2017 01:53
Surr: Toluene-d8	*96.1*			*70-130*	*%REC*	1	4/14/2017 01:53

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**15**	**0.025**	**0.050**	**% of sample**	1	4/13/2017 18:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 31 (2-4) - 041017
Collection Date: 4/10/2017 11:55 AM

Work Order: 1704626
Lab ID: 1704626-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		10	77	µg/Kg-dry	1	4/17/2017 20:52
Aroclor 1221	U		10	77	µg/Kg-dry	1	4/17/2017 20:52
Aroclor 1232	U		10	77	µg/Kg-dry	1	4/17/2017 20:52
Aroclor 1242	U		10	77	µg/Kg-dry	1	4/17/2017 20:52
Aroclor 1248	U		10	77	µg/Kg-dry	1	4/17/2017 20:52
Aroclor 1254	**7.6**	J	**7.0**	**77**	**µg/Kg-dry**	1	4/17/2017 20:52
Aroclor 1260	U		7.0	77	µg/Kg-dry	1	4/17/2017 20:52
Aroclor 1262	U		7.0	77	µg/Kg-dry	1	4/17/2017 20:52
Aroclor 1268	U		7.0	77	µg/Kg-dry	1	4/17/2017 20:52
Surr: Decachlorobiphenyl	*46.2*			*40-140*	*%REC*	1	4/17/2017 20:52
Surr: Tetrachloro-m-xylene	*74.1*			*45-124*	*%REC*	1	4/17/2017 20:52
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.6	12	µg/Kg-dry	1	4/17/2017 20:10
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:10
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/17/2017 20:10
Aldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:10
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:10
alpha-Chlordane	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:10
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:10
Chlordane, Technical	U		12	29	µg/Kg-dry	1	4/17/2017 20:10
delta-BHC	U		6.1	12	µg/Kg-dry	1	4/17/2017 20:10
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:10
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/17/2017 20:10
Endosulfan II	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:10
Endosulfan sulfate	U		2.4	12	µg/Kg-dry	1	4/17/2017 20:10
Endrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 20:10
Endrin aldehyde	U		2.0	12	µg/Kg-dry	1	4/17/2017 20:10
Endrin ketone	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:10
gamma-BHC (Lindane)	U		2.8	12	µg/Kg-dry	1	4/17/2017 20:10
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/17/2017 20:10
Heptachlor	U		3.3	12	µg/Kg-dry	1	4/17/2017 20:10
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:10
Methoxychlor	U		2.0	12	µg/Kg-dry	1	4/17/2017 20:10
Toxaphene	U		13	71	µg/Kg-dry	1	4/17/2017 20:10
Surr: Decachlorobiphenyl	*86.3*			*50-150*	*%REC*	1	4/17/2017 20:10
Surr: Tetrachloro-m-xylene	*74.4*			*50-150*	*%REC*	1	4/17/2017 20:10
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 31 (2-4) - 041017
Collection Date: 4/10/2017 11:55 AM

Work Order: 1704626
Lab ID: 1704626-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.54**		**0.016**	**0.096**	**mg/Kg-dry**	5	4/19/2017 13:26
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**4.6**		**0.27**	**1.9**	**mg/Kg-dry**	4	4/18/2017 23:33
Barium	**91**		**0.26**	**1.9**	**mg/Kg-dry**	4	4/18/2017 23:33
Cadmium	**0.14**	J	**0.015**	**0.74**	**mg/Kg-dry**	4	4/18/2017 23:33
Chromium	**19**		**0.089**	**1.9**	**mg/Kg-dry**	4	4/18/2017 23:33
Lead	**56**		**0.030**	**1.9**	**mg/Kg-dry**	4	4/18/2017 23:33
Selenium	**0.97**	J	**0.52**	**1.7**	**mg/Kg-dry**	4	4/21/2017 08:35
Silver	**0.075**	J	**0.015**	**1.9**	**mg/Kg-dry**	4	4/18/2017 23:33
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/17/17		Analyst: **RM**
2-Chloronaphthalene	U		4.8	49	µg/Kg-dry	1	4/19/2017 10:13
2-Methylnaphthalene	**130**		**7.9**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Acenaphthene	U		3.4	49	µg/Kg-dry	1	4/19/2017 10:13
Acenaphthylene	**79**		**4.3**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Anthracene	U		1.8	49	µg/Kg-dry	1	4/19/2017 10:13
Benzo(a)anthracene	**320**		**3.0**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Benzo(a)pyrene	**140**		**1.2**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Benzo(b)fluoranthene	**590**		**1.9**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Benzo(g,h,i)perylene	U		3.3	49	µg/Kg-dry	1	4/19/2017 10:13
Benzo(k)fluoranthene	**140**		**2.5**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Chrysene	**200**		**1.9**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Dibenzo(a,h)anthracene	U		1.6	49	µg/Kg-dry	1	4/19/2017 10:13
Fluoranthene	**570**		**1.4**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Fluorene	U		1.6	49	µg/Kg-dry	1	4/19/2017 10:13
Indeno(1,2,3-cd)pyrene	U		1.5	49	µg/Kg-dry	1	4/19/2017 10:13
Naphthalene	**110**		**9.1**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Phenanthrene	**320**		**1.7**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Pyrene	**340**		**1.8**	**49**	**µg/Kg-dry**	1	4/19/2017 10:13
Surr: 2-Fluorobiphenyl	*74.3*			*20-140*	*%REC*	1	4/19/2017 10:13
Surr: 4-Terphenyl-d14	*63.1*			*22-172*	*%REC*	1	4/19/2017 10:13
Surr: Nitrobenzene-d5	*61.1*			*8-140*	*%REC*	1	4/19/2017 10:13
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 02:19
1,1,2,2-Tetrachloroethane	U		9.8	41	µg/Kg-dry	1	4/14/2017 02:19
1,1,2-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 02:19
1,1-Dichloroethane	U		10	41	µg/Kg-dry	1	4/14/2017 02:19
1,1-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 02:19
1,2-Dichloroethane	U		11	41	µg/Kg-dry	1	4/14/2017 02:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 31 (2-4) - 041017
Collection Date: 4/10/2017 11:55 AM

Work Order: 1704626
Lab ID: 1704626-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	41	µg/Kg-dry	1	4/14/2017 02:19
2-Butanone	U		55	270	µg/Kg-dry	1	4/14/2017 02:19
2-Hexanone	U		27	41	µg/Kg-dry	1	4/14/2017 02:19
4-Methyl-2-pentanone	U		30	41	µg/Kg-dry	1	4/14/2017 02:19
Acetone	U		74	140	µg/Kg-dry	1	4/14/2017 02:19
Benzene	**36**	J	**9.2**	**41**	**µg/Kg-dry**	1	4/14/2017 02:19
Bromodichloromethane	U		11	41	µg/Kg-dry	1	4/14/2017 02:19
Bromoform	U		14	41	µg/Kg-dry	1	4/14/2017 02:19
Bromomethane	U		18	100	µg/Kg-dry	1	4/14/2017 02:19
Carbon disulfide	U		14	41	µg/Kg-dry	1	4/14/2017 02:19
Carbon tetrachloride	U		7.2	41	µg/Kg-dry	1	4/14/2017 02:19
Chlorobenzene	U		12	41	µg/Kg-dry	1	4/14/2017 02:19
Chloroethane	U		26	140	µg/Kg-dry	1	4/14/2017 02:19
Chloroform	U		14	41	µg/Kg-dry	1	4/14/2017 02:19
cis-1,2-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 02:19
cis-1,3-Dichloropropene	U		16	41	µg/Kg-dry	1	4/14/2017 02:19
Dibromochloromethane	U		9.3	41	µg/Kg-dry	1	4/14/2017 02:19
Ethylbenzene	**47**		**9.5**	**41**	**µg/Kg-dry**	1	4/14/2017 02:19
Methyl tert-butyl ether	U		13	41	µg/Kg-dry	1	4/14/2017 02:19
Methylene chloride	**51**		**19**	**41**	**µg/Kg-dry**	1	4/14/2017 02:19
Styrene	U		29	41	µg/Kg-dry	1	4/14/2017 02:19
Tetrachloroethene	U		20	41	µg/Kg-dry	1	4/14/2017 02:19
Toluene	**89**		**13**	**41**	**µg/Kg-dry**	1	4/14/2017 02:19
trans-1,2-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 02:19
trans-1,3-Dichloropropene	U		7.3	41	µg/Kg-dry	1	4/14/2017 02:19
Trichloroethene	**170**		**11**	**41**	**µg/Kg-dry**	1	4/14/2017 02:19
Vinyl chloride	U		13	41	µg/Kg-dry	1	4/14/2017 02:19
Xylenes, Total	**240**		**31**	**120**	**µg/Kg-dry**	1	4/14/2017 02:19
Surr: 1,2-Dichloroethane-d4	*109*			*70-130*	*%REC*	1	4/14/2017 02:19
Surr: 4-Bromofluorobenzene	*102*			*70-130*	*%REC*	1	4/14/2017 02:19
Surr: Dibromofluoromethane	*101*			*70-130*	*%REC*	1	4/14/2017 02:19
Surr: Toluene-d8	*94.4*			*70-130*	*%REC*	1	4/14/2017 02:19

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**15**	**0.025**	**0.050**	**% of sample**	1	4/13/2017 18:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 27 (2-4) - 041017
Collection Date: 4/10/2017 12:10 PM

Work Order: 1704626
Lab ID: 1704626-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		11	83	µg/Kg-dry	1	4/17/2017 21:07
Aroclor 1221	U		11	83	µg/Kg-dry	1	4/17/2017 21:07
Aroclor 1232	U		11	83	µg/Kg-dry	1	4/17/2017 21:07
Aroclor 1242	U		11	83	µg/Kg-dry	1	4/17/2017 21:07
Aroclor 1248	U		11	83	µg/Kg-dry	1	4/17/2017 21:07
Aroclor 1254	U		7.5	83	µg/Kg-dry	1	4/17/2017 21:07
Aroclor 1260	U		7.5	83	µg/Kg-dry	1	4/17/2017 21:07
Aroclor 1262	U		7.5	83	µg/Kg-dry	1	4/17/2017 21:07
Aroclor 1268	U		7.5	83	µg/Kg-dry	1	4/17/2017 21:07
Surr: Decachlorobiphenyl	*50.4*			*40-140*	*%REC*	1	4/17/2017 21:07
Surr: Tetrachloro-m-xylene	*76.7*			*45-124*	*%REC*	1	4/17/2017 21:07
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.7	13	µg/Kg-dry	1	4/17/2017 20:24
4,4´-DDE	U		2.4	13	µg/Kg-dry	1	4/17/2017 20:24
4,4´-DDT	U		2.0	13	µg/Kg-dry	1	4/17/2017 20:24
Aldrin	U		2.5	13	µg/Kg-dry	1	4/17/2017 20:24
alpha-BHC	U		2.4	13	µg/Kg-dry	1	4/17/2017 20:24
alpha-Chlordane	U		2.4	13	µg/Kg-dry	1	4/17/2017 20:24
beta-BHC	U		2.3	13	µg/Kg-dry	1	4/17/2017 20:24
Chlordane, Technical	U		12	31	µg/Kg-dry	1	4/17/2017 20:24
delta-BHC	U		6.5	13	µg/Kg-dry	1	4/17/2017 20:24
Dieldrin	U		2.4	13	µg/Kg-dry	1	4/17/2017 20:24
Endosulfan I	U		2.0	13	µg/Kg-dry	1	4/17/2017 20:24
Endosulfan II	U		2.4	13	µg/Kg-dry	1	4/17/2017 20:24
Endosulfan sulfate	U		2.6	13	µg/Kg-dry	1	4/17/2017 20:24
Endrin	U		2.6	13	µg/Kg-dry	1	4/17/2017 20:24
Endrin aldehyde	U		2.2	13	µg/Kg-dry	1	4/17/2017 20:24
Endrin ketone	U		2.4	13	µg/Kg-dry	1	4/17/2017 20:24
gamma-BHC (Lindane)	U		3.0	13	µg/Kg-dry	1	4/17/2017 20:24
gamma-Chlordane	U		2.8	13	µg/Kg-dry	1	4/17/2017 20:24
Heptachlor	U		3.5	13	µg/Kg-dry	1	4/17/2017 20:24
Heptachlor epoxide	U		2.3	13	µg/Kg-dry	1	4/17/2017 20:24
Methoxychlor	U		2.2	13	µg/Kg-dry	1	4/17/2017 20:24
Toxaphene	U		14	75	µg/Kg-dry	1	4/17/2017 20:24
Surr: Decachlorobiphenyl	*65.3*			*50-150*	*%REC*	1	4/17/2017 20:24
Surr: Tetrachloro-m-xylene	*94.9*			*50-150*	*%REC*	1	4/17/2017 20:24
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 27 (2-4) - 041017
Collection Date: 4/10/2017 12:10 PM

Work Order: 1704626
Lab ID: 1704626-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.045**		**0.0030**	**0.018**	**mg/Kg-dry**	1	4/18/2017 19:47
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**5.1**		**0.29**	**2.0**	**mg/Kg-dry**	4	4/18/2017 23:39
Barium	**100**		**0.28**	**2.0**	**mg/Kg-dry**	4	4/18/2017 23:39
Cadmium	**0.19**	J	**0.016**	**0.79**	**mg/Kg-dry**	4	4/18/2017 23:39
Chromium	**24**		**0.095**	**2.0**	**mg/Kg-dry**	4	4/18/2017 23:39
Lead	**15**		**0.032**	**2.0**	**mg/Kg-dry**	4	4/18/2017 23:39
Selenium	**1.4**	J	**0.55**	**1.8**	**mg/Kg-dry**	4	4/21/2017 08:41
Silver	**0.079**	J	**0.016**	**2.0**	**mg/Kg-dry**	4	4/18/2017 23:39
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/17/17		Analyst: **RM**
2-Chloronaphthalene	U		5.1	51	µg/Kg-dry	1	4/19/2017 10:40
2-Methylnaphthalene	**130**		**8.3**	**51**	**µg/Kg-dry**	1	4/19/2017 10:40
Acenaphthene	U		3.6	51	µg/Kg-dry	1	4/19/2017 10:40
Acenaphthylene	U		4.5	51	µg/Kg-dry	1	4/19/2017 10:40
Anthracene	U		1.9	51	µg/Kg-dry	1	4/19/2017 10:40
Benzo(a)anthracene	U		3.1	51	µg/Kg-dry	1	4/19/2017 10:40
Benzo(a)pyrene	U		1.3	51	µg/Kg-dry	1	4/19/2017 10:40
Benzo(b)fluoranthene	U		2.0	51	µg/Kg-dry	1	4/19/2017 10:40
Benzo(g,h,i)perylene	U		3.4	51	µg/Kg-dry	1	4/19/2017 10:40
Benzo(k)fluoranthene	U		2.6	51	µg/Kg-dry	1	4/19/2017 10:40
Chrysene	U		2.0	51	µg/Kg-dry	1	4/19/2017 10:40
Dibenzo(a,h)anthracene	U		1.7	51	µg/Kg-dry	1	4/19/2017 10:40
Fluoranthene	**120**		**1.5**	**51**	**µg/Kg-dry**	1	4/19/2017 10:40
Fluorene	U		1.7	51	µg/Kg-dry	1	4/19/2017 10:40
Indeno(1,2,3-cd)pyrene	U		1.6	51	µg/Kg-dry	1	4/19/2017 10:40
Naphthalene	**100**		**9.6**	**51**	**µg/Kg-dry**	1	4/19/2017 10:40
Phenanthrene	U		1.8	51	µg/Kg-dry	1	4/19/2017 10:40
Pyrene	U		1.9	51	µg/Kg-dry	1	4/19/2017 10:40
Surr: 2-Fluorobiphenyl	*62.3*			*20-140*	*%REC*	1	4/19/2017 10:40
Surr: 4-Terphenyl-d14	*68.3*			*22-172*	*%REC*	1	4/19/2017 10:40
Surr: Nitrobenzene-d5	*58.8*			*8-140*	*%REC*	1	4/19/2017 10:40
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		13	45	µg/Kg-dry	1	4/14/2017 02:45
1,1,2,2-Tetrachloroethane	U		11	45	µg/Kg-dry	1	4/14/2017 02:45
1,1,2-Trichloroethane	U		13	45	µg/Kg-dry	1	4/14/2017 02:45
1,1-Dichloroethane	U		11	45	µg/Kg-dry	1	4/14/2017 02:45
1,1-Dichloroethene	U		12	45	µg/Kg-dry	1	4/14/2017 02:45
1,2-Dichloroethane	U		12	45	µg/Kg-dry	1	4/14/2017 02:45

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 27 (2-4) - 041017
Collection Date: 4/10/2017 12:10 PM

Work Order: 1704626
Lab ID: 1704626-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	45	µg/Kg-dry	1	4/14/2017 02:45
2-Butanone	U		61	300	µg/Kg-dry	1	4/14/2017 02:45
2-Hexanone	U		30	45	µg/Kg-dry	1	4/14/2017 02:45
4-Methyl-2-pentanone	U		33	45	µg/Kg-dry	1	4/14/2017 02:45
Acetone	U		82	150	µg/Kg-dry	1	4/14/2017 02:45
Benzene	U		10	45	µg/Kg-dry	1	4/14/2017 02:45
Bromodichloromethane	U		12	45	µg/Kg-dry	1	4/14/2017 02:45
Bromoform	U		16	45	µg/Kg-dry	1	4/14/2017 02:45
Bromomethane	U		20	110	µg/Kg-dry	1	4/14/2017 02:45
Carbon disulfide	U		15	45	µg/Kg-dry	1	4/14/2017 02:45
Carbon tetrachloride	U		8.0	45	µg/Kg-dry	1	4/14/2017 02:45
Chlorobenzene	U		14	45	µg/Kg-dry	1	4/14/2017 02:45
Chloroethane	U		29	150	µg/Kg-dry	1	4/14/2017 02:45
Chloroform	U		15	45	µg/Kg-dry	1	4/14/2017 02:45
cis-1,2-Dichloroethene	U		13	45	µg/Kg-dry	1	4/14/2017 02:45
cis-1,3-Dichloropropene	U		17	45	µg/Kg-dry	1	4/14/2017 02:45
Dibromochloromethane	U		10	45	µg/Kg-dry	1	4/14/2017 02:45
Ethylbenzene	U		10	45	µg/Kg-dry	1	4/14/2017 02:45
Methyl tert-butyl ether	U		15	45	µg/Kg-dry	1	4/14/2017 02:45
Methylene chloride	U		21	45	µg/Kg-dry	1	4/14/2017 02:45
Styrene	U		32	45	µg/Kg-dry	1	4/14/2017 02:45
Tetrachloroethene	U		22	45	µg/Kg-dry	1	4/14/2017 02:45
Toluene	U		15	45	µg/Kg-dry	1	4/14/2017 02:45
trans-1,2-Dichloroethene	U		13	45	µg/Kg-dry	1	4/14/2017 02:45
trans-1,3-Dichloropropene	U		8.0	45	µg/Kg-dry	1	4/14/2017 02:45
Trichloroethene	U		12	45	µg/Kg-dry	1	4/14/2017 02:45
Vinyl chloride	U		14	45	µg/Kg-dry	1	4/14/2017 02:45
Xylenes, Total	U		35	140	µg/Kg-dry	1	4/14/2017 02:45
Surr: 1,2-Dichloroethane-d4	*97.8*			*70-130*	*%REC*	1	4/14/2017 02:45
Surr: 4-Bromofluorobenzene	*216*	S		*70-130*	*%REC*	1	4/14/2017 02:45
Surr: Dibromofluoromethane	*89.4*			*70-130*	*%REC*	1	4/14/2017 02:45
Surr: Toluene-d8	*136*	S		*70-130*	*%REC*	1	4/14/2017 02:45

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**20**		**0.025**	**0.050**	**% of sample**	1	4/13/2017 18:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 27 (4-6) - 041017
Collection Date: 4/10/2017 12:15 PM

Work Order: 1704626
Lab ID: 1704626-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		10	79	µg/Kg-dry	1	4/17/2017 21:21
Aroclor 1221	U		10	79	µg/Kg-dry	1	4/17/2017 21:21
Aroclor 1232	U		10	79	µg/Kg-dry	1	4/17/2017 21:21
Aroclor 1242	U		10	79	µg/Kg-dry	1	4/17/2017 21:21
Aroclor 1248	U		10	79	µg/Kg-dry	1	4/17/2017 21:21
Aroclor 1254	**56**	J	**7.2**	**79**	**µg/Kg-dry**	1	4/17/2017 21:21
Aroclor 1260	U		7.2	79	µg/Kg-dry	1	4/17/2017 21:21
Aroclor 1262	U		7.2	79	µg/Kg-dry	1	4/17/2017 21:21
Aroclor 1268	U		7.2	79	µg/Kg-dry	1	4/17/2017 21:21
Surr: Decachlorobiphenyl	*49.4*			*40-140*	*%REC*	1	4/17/2017 21:21
Surr: Tetrachloro-m-xylene	*64.6*			*45-124*	*%REC*	1	4/17/2017 21:21
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.7	12	µg/Kg-dry	1	4/17/2017 20:38
4,4´-DDE	U		2.4	12	µg/Kg-dry	1	4/17/2017 20:38
4,4´-DDT	**4.8**	J	**2.0**	**12**	**µg/Kg-dry**	1	4/17/2017 20:38
Aldrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 20:38
alpha-BHC	U		2.4	12	µg/Kg-dry	1	4/17/2017 20:38
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:38
beta-BHC	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:38
Chlordane, Technical	U		12	31	µg/Kg-dry	1	4/17/2017 20:38
delta-BHC	U		6.4	12	µg/Kg-dry	1	4/17/2017 20:38
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:38
Endosulfan I	U		2.0	12	µg/Kg-dry	1	4/17/2017 20:38
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:38
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/17/2017 20:38
Endrin	U		2.5	12	µg/Kg-dry	1	4/17/2017 20:38
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/17/2017 20:38
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:38
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/17/2017 20:38
gamma-Chlordane	U		2.8	12	µg/Kg-dry	1	4/17/2017 20:38
Heptachlor	U		3.5	12	µg/Kg-dry	1	4/17/2017 20:38
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:38
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/17/2017 20:38
Toxaphene	U		13	74	µg/Kg-dry	1	4/17/2017 20:38
Surr: Decachlorobiphenyl	*57.4*			*50-150*	*%REC*	1	4/17/2017 20:38
Surr: Tetrachloro-m-xylene	*79.0*			*50-150*	*%REC*	1	4/17/2017 20:38
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 27 (4-6) - 041017
Collection Date: 4/10/2017 12:15 PM

Work Order: 1704626
Lab ID: 1704626-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.056**		**0.0033**	**0.020**	**mg/Kg-dry**	1	4/18/2017 19:50
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**5.5**		**0.29**	**2.0**	**mg/Kg-dry**	4	4/18/2017 23:45
Barium	**98**		**0.28**	**2.0**	**mg/Kg-dry**	4	4/18/2017 23:45
Cadmium	**0.21**	J	**0.016**	**0.79**	**mg/Kg-dry**	4	4/18/2017 23:45
Chromium	**27**		**0.095**	**2.0**	**mg/Kg-dry**	4	4/18/2017 23:45
Lead	**16**		**0.032**	**2.0**	**mg/Kg-dry**	4	4/18/2017 23:45
Selenium	**1.5**	J	**0.55**	**1.8**	**mg/Kg-dry**	4	4/21/2017 08:47
Silver	**0.070**	J	**0.016**	**2.0**	**mg/Kg-dry**	4	4/18/2017 23:45
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		5.1	51	µg/Kg-dry	1	4/19/2017 15:09
2-Methylnaphthalene	**230**		**8.3**	**51**	**µg/Kg-dry**	1	4/19/2017 15:09
Acenaphthene	U		3.6	51	µg/Kg-dry	1	4/19/2017 15:09
Acenaphthylene	U		4.5	51	µg/Kg-dry	1	4/19/2017 15:09
Anthracene	U		1.9	51	µg/Kg-dry	1	4/19/2017 15:09
Benzo(a)anthracene	**400**		**3.1**	**51**	**µg/Kg-dry**	1	4/19/2017 15:09
Benzo(a)pyrene	**120**		**1.3**	**51**	**µg/Kg-dry**	1	4/19/2017 15:09
Benzo(b)fluoranthene	**540**		**2.0**	**51**	**µg/Kg-dry**	1	4/19/2017 15:09
Benzo(g,h,i)perylene	U		3.4	51	µg/Kg-dry	1	4/19/2017 15:09
Benzo(k)fluoranthene	**78**		**2.6**	**51**	**µg/Kg-dry**	1	4/19/2017 15:09
Chrysene	**290**		**2.0**	**51**	**µg/Kg-dry**	1	4/19/2017 15:09
Dibenzo(a,h)anthracene	U		1.7	51	µg/Kg-dry	1	4/19/2017 15:09
Fluoranthene	**710**		**1.5**	**51**	**µg/Kg-dry**	1	4/19/2017 15:09
Fluorene	U		1.7	51	µg/Kg-dry	1	4/19/2017 15:09
Indeno(1,2,3-cd)pyrene	U		1.6	51	µg/Kg-dry	1	4/19/2017 15:09
Naphthalene	**310**		**9.6**	**51**	**µg/Kg-dry**	1	4/19/2017 15:09
Phenanthrene	**500**		**1.8**	**51**	**µg/Kg-dry**	1	4/19/2017 15:09
Pyrene	**500**		**1.9**	**51**	**µg/Kg-dry**	1	4/19/2017 15:09
Surr: 2-Fluorobiphenyl	*68.0*			*20-140*	*%REC*	1	4/19/2017 15:09
Surr: 4-Terphenyl-d14	*64.2*			*22-172*	*%REC*	1	4/19/2017 15:09
Surr: Nitrobenzene-d5	*58.8*			*8-140*	*%REC*	1	4/19/2017 15:09
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		13	44	µg/Kg-dry	1	4/14/2017 03:10
1,1,2,2-Tetrachloroethane	U		11	44	µg/Kg-dry	1	4/14/2017 03:10
1,1,2-Trichloroethane	U		13	44	µg/Kg-dry	1	4/14/2017 03:10
1,1-Dichloroethane	U		11	44	µg/Kg-dry	1	4/14/2017 03:10
1,1-Dichloroethene	U		12	44	µg/Kg-dry	1	4/14/2017 03:10
1,2-Dichloroethane	U		12	44	µg/Kg-dry	1	4/14/2017 03:10

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 27 (4-6) - 041017
Collection Date: 4/10/2017 12:15 PM

Work Order: 1704626
Lab ID: 1704626-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	44	µg/Kg-dry	1	4/14/2017 03:10
2-Butanone	**150**	J	**59**	**290**	**µg/Kg-dry**	1	4/14/2017 03:10
2-Hexanone	U		29	44	µg/Kg-dry	1	4/14/2017 03:10
4-Methyl-2-pentanone	U		32	44	µg/Kg-dry	1	4/14/2017 03:10
Acetone	U		80	150	µg/Kg-dry	1	4/14/2017 03:10
Benzene	U		10	44	µg/Kg-dry	1	4/14/2017 03:10
Bromodichloromethane	U		12	44	µg/Kg-dry	1	4/14/2017 03:10
Bromoform	U		16	44	µg/Kg-dry	1	4/14/2017 03:10
Bromomethane	U		19	110	µg/Kg-dry	1	4/14/2017 03:10
Carbon disulfide	U		15	44	µg/Kg-dry	1	4/14/2017 03:10
Carbon tetrachloride	U		7.8	44	µg/Kg-dry	1	4/14/2017 03:10
Chlorobenzene	U		13	44	µg/Kg-dry	1	4/14/2017 03:10
Chloroethane	U		28	150	µg/Kg-dry	1	4/14/2017 03:10
Chloroform	U		15	44	µg/Kg-dry	1	4/14/2017 03:10
cis-1,2-Dichloroethene	U		12	44	µg/Kg-dry	1	4/14/2017 03:10
cis-1,3-Dichloropropene	U		17	44	µg/Kg-dry	1	4/14/2017 03:10
Dibromochloromethane	U		10	44	µg/Kg-dry	1	4/14/2017 03:10
Ethylbenzene	U		10	44	µg/Kg-dry	1	4/14/2017 03:10
Methyl tert-butyl ether	U		14	44	µg/Kg-dry	1	4/14/2017 03:10
Methylene chloride	**37**	J	**20**	**44**	**µg/Kg-dry**	1	4/14/2017 03:10
Styrene	U		31	44	µg/Kg-dry	1	4/14/2017 03:10
Tetrachloroethene	U		22	44	µg/Kg-dry	1	4/14/2017 03:10
Toluene	**18**	J	**15**	**44**	**µg/Kg-dry**	1	4/14/2017 03:10
trans-1,2-Dichloroethene	U		12	44	µg/Kg-dry	1	4/14/2017 03:10
trans-1,3-Dichloropropene	U		7.9	44	µg/Kg-dry	1	4/14/2017 03:10
Trichloroethene	U		12	44	µg/Kg-dry	1	4/14/2017 03:10
Vinyl chloride	U		14	44	µg/Kg-dry	1	4/14/2017 03:10
Xylenes, Total	U		34	130	µg/Kg-dry	1	4/14/2017 03:10
Surr: 1,2-Dichloroethane-d4	*93.2*			*70-130*	*%REC*	1	4/14/2017 03:10
Surr: 4-Bromofluorobenzene	*137*	S		*70-130*	*%REC*	1	4/14/2017 03:10
Surr: Dibromofluoromethane	*86.2*			*70-130*	*%REC*	1	4/14/2017 03:10
Surr: Toluene-d8	*147*	S		*70-130*	*%REC*	1	4/14/2017 03:10

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**19**	**0.025**	**0.050**	**% of sample**	1	4/13/2017 18:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 25 (4-6) - 041017
Collection Date: 4/10/2017 12:30 PM

Work Order: 1704626
Lab ID: 1704626-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		9.9	77	µg/Kg-dry	1	4/17/2017 21:35
Aroclor 1221	U		9.9	77	µg/Kg-dry	1	4/17/2017 21:35
Aroclor 1232	U		9.9	77	µg/Kg-dry	1	4/17/2017 21:35
Aroclor 1242	U		9.9	77	µg/Kg-dry	1	4/17/2017 21:35
Aroclor 1248	U		9.9	77	µg/Kg-dry	1	4/17/2017 21:35
Aroclor 1254	U		7.0	77	µg/Kg-dry	1	4/17/2017 21:35
Aroclor 1260	U		7.0	77	µg/Kg-dry	1	4/17/2017 21:35
Aroclor 1262	U		7.0	77	µg/Kg-dry	1	4/17/2017 21:35
Aroclor 1268	U		7.0	77	µg/Kg-dry	1	4/17/2017 21:35
Surr: Decachlorobiphenyl	*59.2*			*40-140*	*%REC*	1	4/17/2017 21:35
Surr: Tetrachloro-m-xylene	*71.4*			*45-124*	*%REC*	1	4/17/2017 21:35
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.5	12	µg/Kg-dry	1	4/17/2017 20:51
4,4´-DDE	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:51
4,4´-DDT	U		1.8	12	µg/Kg-dry	1	4/17/2017 20:51
Aldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:51
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/17/2017 20:51
alpha-Chlordane	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:51
beta-BHC	U		2.1	12	µg/Kg-dry	1	4/17/2017 20:51
Chlordane, Technical	U		11	29	µg/Kg-dry	1	4/17/2017 20:51
delta-BHC	U		6.0	12	µg/Kg-dry	1	4/17/2017 20:51
Dieldrin	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:51
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/17/2017 20:51
Endosulfan II	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:51
Endosulfan sulfate	U		2.4	12	µg/Kg-dry	1	4/17/2017 20:51
Endrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 20:51
Endrin aldehyde	U		2.0	12	µg/Kg-dry	1	4/17/2017 20:51
Endrin ketone	U		2.2	12	µg/Kg-dry	1	4/17/2017 20:51
gamma-BHC (Lindane)	U		2.8	12	µg/Kg-dry	1	4/17/2017 20:51
gamma-Chlordane	U		2.6	12	µg/Kg-dry	1	4/17/2017 20:51
Heptachlor	U		3.3	12	µg/Kg-dry	1	4/17/2017 20:51
Heptachlor epoxide	U		2.1	12	µg/Kg-dry	1	4/17/2017 20:51
Methoxychlor	U		2.0	12	µg/Kg-dry	1	4/17/2017 20:51
Toxaphene	U		13	69	µg/Kg-dry	1	4/17/2017 20:51
Surr: Decachlorobiphenyl	*74.0*			*50-150*	*%REC*	1	4/17/2017 20:51
Surr: Tetrachloro-m-xylene	*84.2*			*50-150*	*%REC*	1	4/17/2017 20:51
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 25 (4-6) - 041017
Collection Date: 4/10/2017 12:30 PM

Work Order: 1704626
Lab ID: 1704626-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.014**	J	**0.0027**	**0.016**	**mg/Kg-dry**	1	4/18/2017 19:52
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**5.2**		**0.26**	**1.8**	**mg/Kg-dry**	4	4/18/2017 23:51
Barium	**39**		**0.25**	**1.8**	**mg/Kg-dry**	4	4/18/2017 23:51
Cadmium	U		0.014	0.71	mg/Kg-dry	4	4/18/2017 23:51
Chromium	**16**		**0.085**	**1.8**	**mg/Kg-dry**	4	4/18/2017 23:51
Lead	**13**		**0.028**	**1.8**	**mg/Kg-dry**	4	4/18/2017 23:51
Selenium	**1.0**	J	**0.52**	**1.7**	**mg/Kg-dry**	4	4/21/2017 08:53
Silver	**0.046**	J	**0.014**	**1.8**	**mg/Kg-dry**	4	4/18/2017 23:51
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.6	46	µg/Kg-dry	1	4/19/2017 14:43
2-Methylnaphthalene	U		7.5	46	µg/Kg-dry	1	4/19/2017 14:43
Acenaphthene	U		3.3	46	µg/Kg-dry	1	4/19/2017 14:43
Acenaphthylene	U		4.1	46	µg/Kg-dry	1	4/19/2017 14:43
Anthracene	U		1.7	46	µg/Kg-dry	1	4/19/2017 14:43
Benzo(a)anthracene	U		2.8	46	µg/Kg-dry	1	4/19/2017 14:43
Benzo(a)pyrene	U		1.1	46	µg/Kg-dry	1	4/19/2017 14:43
Benzo(b)fluoranthene	U		1.8	46	µg/Kg-dry	1	4/19/2017 14:43
Benzo(g,h,i)perylene	U		3.1	46	µg/Kg-dry	1	4/19/2017 14:43
Benzo(k)fluoranthene	U		2.4	46	µg/Kg-dry	1	4/19/2017 14:43
Chrysene	U		1.8	46	µg/Kg-dry	1	4/19/2017 14:43
Dibenzo(a,h)anthracene	U		1.5	46	µg/Kg-dry	1	4/19/2017 14:43
Fluoranthene	**48**		**1.3**	**46**	**µg/Kg-dry**	1	4/19/2017 14:43
Fluorene	U		1.5	46	µg/Kg-dry	1	4/19/2017 14:43
Indeno(1,2,3-cd)pyrene	U		1.4	46	µg/Kg-dry	1	4/19/2017 14:43
Naphthalene	U		8.7	46	µg/Kg-dry	1	4/19/2017 14:43
Phenanthrene	U		1.6	46	µg/Kg-dry	1	4/19/2017 14:43
Pyrene	U		1.7	46	µg/Kg-dry	1	4/19/2017 14:43
Surr: 2-Fluorobiphenyl	*84.1*			*20-140*	*%REC*	1	4/19/2017 14:43
Surr: 4-Terphenyl-d14	*81.6*			*22-172*	*%REC*	1	4/19/2017 14:43
Surr: Nitrobenzene-d5	*70.9*			*8-140*	*%REC*	1	4/19/2017 14:43
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		11	40	µg/Kg-dry	1	4/14/2017 03:36
1,1,2,2-Tetrachloroethane	U		9.6	40	µg/Kg-dry	1	4/14/2017 03:36
1,1,2-Trichloroethane	U		12	40	µg/Kg-dry	1	4/14/2017 03:36
1,1-Dichloroethane	U		10	40	µg/Kg-dry	1	4/14/2017 03:36
1,1-Dichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 03:36
1,2-Dichloroethane	U		11	40	µg/Kg-dry	1	4/14/2017 03:36

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 25 (4-6) - 041017
Collection Date: 4/10/2017 12:30 PM

Work Order: 1704626
Lab ID: 1704626-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	40	µg/Kg-dry	1	4/14/2017 03:36
2-Butanone	U		54	270	µg/Kg-dry	1	4/14/2017 03:36
2-Hexanone	U		26	40	µg/Kg-dry	1	4/14/2017 03:36
4-Methyl-2-pentanone	U		29	40	µg/Kg-dry	1	4/14/2017 03:36
Acetone	U		72	130	µg/Kg-dry	1	4/14/2017 03:36
Benzene	U		9.0	40	µg/Kg-dry	1	4/14/2017 03:36
Bromodichloromethane	U		11	40	µg/Kg-dry	1	4/14/2017 03:36
Bromoform	U		14	40	µg/Kg-dry	1	4/14/2017 03:36
Bromomethane	U		17	99	µg/Kg-dry	1	4/14/2017 03:36
Carbon disulfide	U		13	40	µg/Kg-dry	1	4/14/2017 03:36
Carbon tetrachloride	U		7.1	40	µg/Kg-dry	1	4/14/2017 03:36
Chlorobenzene	U		12	40	µg/Kg-dry	1	4/14/2017 03:36
Chloroethane	U		25	130	µg/Kg-dry	1	4/14/2017 03:36
Chloroform	U		13	40	µg/Kg-dry	1	4/14/2017 03:36
cis-1,2-Dichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 03:36
cis-1,3-Dichloropropene	U		15	40	µg/Kg-dry	1	4/14/2017 03:36
Dibromochloromethane	U		9.1	40	µg/Kg-dry	1	4/14/2017 03:36
Ethylbenzene	U		9.3	40	µg/Kg-dry	1	4/14/2017 03:36
Methyl tert-butyl ether	U		13	40	µg/Kg-dry	1	4/14/2017 03:36
Methylene chloride	**65**		**18**	**40**	**µg/Kg-dry**	1	4/14/2017 03:36
Styrene	U		28	40	µg/Kg-dry	1	4/14/2017 03:36
Tetrachloroethene	U		20	40	µg/Kg-dry	1	4/14/2017 03:36
Toluene	U		13	40	µg/Kg-dry	1	4/14/2017 03:36
trans-1,2-Dichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 03:36
trans-1,3-Dichloropropene	U		7.1	40	µg/Kg-dry	1	4/14/2017 03:36
Trichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 03:36
Vinyl chloride	U		13	40	µg/Kg-dry	1	4/14/2017 03:36
Xylenes, Total	U		31	120	µg/Kg-dry	1	4/14/2017 03:36
Surr: 1,2-Dichloroethane-d4	*104*			*70-130*	*%REC*	1	4/14/2017 03:36
Surr: 4-Bromofluorobenzene	*103*			*70-130*	*%REC*	1	4/14/2017 03:36
Surr: Dibromofluoromethane	*95.8*			*70-130*	*%REC*	1	4/14/2017 03:36
Surr: Toluene-d8	*94.1*			*70-130*	*%REC*	1	4/14/2017 03:36
MOISTURE		Method:	**SW3550C**				Analyst: **EDL**
Moisture	**14**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 28 (2-4) - 041017
Collection Date: 4/10/2017 01:40 PM

Work Order: 1704626
Lab ID: 1704626-11
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		9.6	74	µg/Kg-dry	1	4/17/2017 21:50
Aroclor 1221	U		9.6	74	µg/Kg-dry	1	4/17/2017 21:50
Aroclor 1232	U		9.6	74	µg/Kg-dry	1	4/17/2017 21:50
Aroclor 1242	U		9.6	74	µg/Kg-dry	1	4/17/2017 21:50
Aroclor 1248	U		9.6	74	µg/Kg-dry	1	4/17/2017 21:50
Aroclor 1254	U		6.7	74	µg/Kg-dry	1	4/17/2017 21:50
Aroclor 1260	U		6.7	74	µg/Kg-dry	1	4/17/2017 21:50
Aroclor 1262	U		6.7	74	µg/Kg-dry	1	4/17/2017 21:50
Aroclor 1268	U		6.7	74	µg/Kg-dry	1	4/17/2017 21:50
Surr: Decachlorobiphenyl	*79.8*			*40-140*	*%REC*	1	4/17/2017 21:50
Surr: Tetrachloro-m-xylene	*80.6*			*45-124*	*%REC*	1	4/17/2017 21:50
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.6	12	µg/Kg-dry	1	4/17/2017 17:31
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/17/2017 17:31
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/17/2017 17:31
Aldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 17:31
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/17/2017 17:31
alpha-Chlordane	U		2.2	12	µg/Kg-dry	1	4/17/2017 17:31
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/17/2017 17:31
Chlordane, Technical	U		12	29	µg/Kg-dry	1	4/17/2017 17:31
delta-BHC	U		6.1	12	µg/Kg-dry	1	4/17/2017 17:31
Dieldrin	U		2.2	12	µg/Kg-dry	1	4/17/2017 17:31
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/17/2017 17:31
Endosulfan II	U		2.2	12	µg/Kg-dry	1	4/17/2017 17:31
Endosulfan sulfate	U		2.4	12	µg/Kg-dry	1	4/17/2017 17:31
Endrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 17:31
Endrin aldehyde	U		2.0	12	µg/Kg-dry	1	4/17/2017 17:31
Endrin ketone	U		2.2	12	µg/Kg-dry	1	4/17/2017 17:31
gamma-BHC (Lindane)	U		2.8	12	µg/Kg-dry	1	4/17/2017 17:31
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/17/2017 17:31
Heptachlor	U		3.3	12	µg/Kg-dry	1	4/17/2017 17:31
Heptachlor epoxide	U		2.1	12	µg/Kg-dry	1	4/17/2017 17:31
Methoxychlor	U		2.0	12	µg/Kg-dry	1	4/17/2017 17:31
Toxaphene	U		13	70	µg/Kg-dry	1	4/17/2017 17:31
Surr: Decachlorobiphenyl	*93.3*			*50-150*	*%REC*	1	4/17/2017 17:31
Surr: Tetrachloro-m-xylene	*82.0*			*50-150*	*%REC*	1	4/17/2017 17:31
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 28 (2-4) - 041017
Collection Date: 4/10/2017 01:40 PM

Work Order: 1704626
Lab ID: 1704626-11
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.021**		**0.0027**	**0.016**	**mg/Kg-dry**	1	4/18/2017 19:55
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**4.9**		**0.26**	**1.8**	**mg/Kg-dry**	4	4/18/2017 23:57
Barium	**83**		**0.25**	**1.8**	**mg/Kg-dry**	4	4/18/2017 23:57
Cadmium	**0.13**	J	**0.014**	**0.71**	**mg/Kg-dry**	4	4/18/2017 23:57
Chromium	**14**		**0.085**	**1.8**	**mg/Kg-dry**	4	4/18/2017 23:57
Lead	**20**		**0.028**	**1.8**	**mg/Kg-dry**	4	4/18/2017 23:57
Selenium	**1.5**	J	**0.54**	**1.8**	**mg/Kg-dry**	4	4/21/2017 08:59
Silver	**0.032**	J	**0.014**	**1.8**	**mg/Kg-dry**	4	4/18/2017 23:57
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.7	47	µg/Kg-dry	1	4/19/2017 15:36
2-Methylnaphthalene	**100**		**7.6**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Acenaphthene	**53**		**3.3**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Acenaphthylene	**75**		**4.1**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Anthracene	**62**		**1.7**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Benzo(a)anthracene	**400**		**2.9**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Benzo(a)pyrene	**110**		**1.2**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Benzo(b)fluoranthene	**490**		**1.8**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Benzo(g,h,i)perylene	**96**		**3.1**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Benzo(k)fluoranthene	**78**		**2.4**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Chrysene	**290**		**1.8**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Dibenzo(a,h)anthracene	**66**		**1.5**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Fluoranthene	**790**		**1.3**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Fluorene	**47**		**1.5**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Indeno(1,2,3-cd)pyrene	**99**		**1.4**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Naphthalene	**90**		**8.8**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Phenanthrene	**540**		**1.6**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Pyrene	**760**		**1.7**	**47**	**µg/Kg-dry**	1	4/19/2017 15:36
Surr: 2-Fluorobiphenyl	*67.0*			*20-140*	*%REC*	1	4/19/2017 15:36
Surr: 4-Terphenyl-d14	*64.7*			*22-172*	*%REC*	1	4/19/2017 15:36
Surr: Nitrobenzene-d5	*62.9*			*8-140*	*%REC*	1	4/19/2017 15:36
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 04:02
1,1,2,2-Tetrachloroethane	U		9.8	41	µg/Kg-dry	1	4/14/2017 04:02
1,1,2-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 04:02
1,1-Dichloroethane	U		10	41	µg/Kg-dry	1	4/14/2017 04:02
1,1-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 04:02
1,2-Dichloroethane	U		11	41	µg/Kg-dry	1	4/14/2017 04:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 28 (2-4) - 041017
Collection Date: 4/10/2017 01:40 PM

Work Order: 1704626
Lab ID: 1704626-11
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	41	µg/Kg-dry	1	4/14/2017 04:02
2-Butanone	**130**	J	**55**	**270**	**µg/Kg-dry**	1	4/14/2017 04:02
2-Hexanone	U		27	41	µg/Kg-dry	1	4/14/2017 04:02
4-Methyl-2-pentanone	U		30	41	µg/Kg-dry	1	4/14/2017 04:02
Acetone	U		74	140	µg/Kg-dry	1	4/14/2017 04:02
Benzene	U		9.2	41	µg/Kg-dry	1	4/14/2017 04:02
Bromodichloromethane	U		11	41	µg/Kg-dry	1	4/14/2017 04:02
Bromoform	U		14	41	µg/Kg-dry	1	4/14/2017 04:02
Bromomethane	U		18	100	µg/Kg-dry	1	4/14/2017 04:02
Carbon disulfide	U		14	41	µg/Kg-dry	1	4/14/2017 04:02
Carbon tetrachloride	U		7.2	41	µg/Kg-dry	1	4/14/2017 04:02
Chlorobenzene	U		12	41	µg/Kg-dry	1	4/14/2017 04:02
Chloroethane	U		26	140	µg/Kg-dry	1	4/14/2017 04:02
Chloroform	U		14	41	µg/Kg-dry	1	4/14/2017 04:02
cis-1,2-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 04:02
cis-1,3-Dichloropropene	U		16	41	µg/Kg-dry	1	4/14/2017 04:02
Dibromochloromethane	U		9.3	41	µg/Kg-dry	1	4/14/2017 04:02
Ethylbenzene	U		9.5	41	µg/Kg-dry	1	4/14/2017 04:02
Methyl tert-butyl ether	U		13	41	µg/Kg-dry	1	4/14/2017 04:02
Methylene chloride	**41**		**19**	**41**	**µg/Kg-dry**	1	4/14/2017 04:02
Styrene	U		29	41	µg/Kg-dry	1	4/14/2017 04:02
Tetrachloroethene	U		20	41	µg/Kg-dry	1	4/14/2017 04:02
Toluene	U		13	41	µg/Kg-dry	1	4/14/2017 04:02
trans-1,2-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 04:02
trans-1,3-Dichloropropene	U		7.3	41	µg/Kg-dry	1	4/14/2017 04:02
Trichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 04:02
Vinyl chloride	U		13	41	µg/Kg-dry	1	4/14/2017 04:02
Xylenes, Total	U		31	120	µg/Kg-dry	1	4/14/2017 04:02
Surr: 1,2-Dichloroethane-d4	*98.2*			*70-130*	*%REC*	1	4/14/2017 04:02
Surr: 4-Bromofluorobenzene	*120*			*70-130*	*%REC*	1	4/14/2017 04:02
Surr: Dibromofluoromethane	*88.6*			*70-130*	*%REC*	1	4/14/2017 04:02
Surr: Toluene-d8	*107*			*70-130*	*%REC*	1	4/14/2017 04:02

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**15**	**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 28 (2-4) DUP - 041017
Collection Date: 4/10/2017 01:42 PM

Work Order: 1704626
Lab ID: 1704626-12
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		9.8	75	µg/Kg-dry	1	4/17/2017 22:04
Aroclor 1221	U		9.8	75	µg/Kg-dry	1	4/17/2017 22:04
Aroclor 1232	U		9.8	75	µg/Kg-dry	1	4/17/2017 22:04
Aroclor 1242	U		9.8	75	µg/Kg-dry	1	4/17/2017 22:04
Aroclor 1248	U		9.8	75	µg/Kg-dry	1	4/17/2017 22:04
Aroclor 1254	U		6.8	75	µg/Kg-dry	1	4/17/2017 22:04
Aroclor 1260	U		6.8	75	µg/Kg-dry	1	4/17/2017 22:04
Aroclor 1262	U		6.8	75	µg/Kg-dry	1	4/17/2017 22:04
Aroclor 1268	U		6.8	75	µg/Kg-dry	1	4/17/2017 22:04
Surr: Decachlorobiphenyl	*77.8*			*40-140*	*%REC*	1	4/17/2017 22:04
Surr: Tetrachloro-m-xylene	*84.8*			*45-124*	*%REC*	1	4/17/2017 22:04
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.5	11	µg/Kg-dry	1	4/17/2017 21:04
4,4´-DDE	U		2.2	11	µg/Kg-dry	1	4/17/2017 21:04
4,4´-DDT	U		1.8	11	µg/Kg-dry	1	4/17/2017 21:04
Aldrin	U		2.3	11	µg/Kg-dry	1	4/17/2017 21:04
alpha-BHC	U		2.2	11	µg/Kg-dry	1	4/17/2017 21:04
alpha-Chlordane	U		2.2	11	µg/Kg-dry	1	4/17/2017 21:04
beta-BHC	U		2.1	11	µg/Kg-dry	1	4/17/2017 21:04
Chlordane, Technical	U		11	29	µg/Kg-dry	1	4/17/2017 21:04
delta-BHC	U		6.0	11	µg/Kg-dry	1	4/17/2017 21:04
Dieldrin	U		2.2	11	µg/Kg-dry	1	4/17/2017 21:04
Endosulfan I	U		1.8	11	µg/Kg-dry	1	4/17/2017 21:04
Endosulfan II	U		2.2	11	µg/Kg-dry	1	4/17/2017 21:04
Endosulfan sulfate	U		2.4	11	µg/Kg-dry	1	4/17/2017 21:04
Endrin	U		2.4	11	µg/Kg-dry	1	4/17/2017 21:04
Endrin aldehyde	U		2.0	11	µg/Kg-dry	1	4/17/2017 21:04
Endrin ketone	U		2.2	11	µg/Kg-dry	1	4/17/2017 21:04
gamma-BHC (Lindane)	U		2.8	11	µg/Kg-dry	1	4/17/2017 21:04
gamma-Chlordane	U		2.6	11	µg/Kg-dry	1	4/17/2017 21:04
Heptachlor	U		3.2	11	µg/Kg-dry	1	4/17/2017 21:04
Heptachlor epoxide	U		2.1	11	µg/Kg-dry	1	4/17/2017 21:04
Methoxychlor	U		2.0	11	µg/Kg-dry	1	4/17/2017 21:04
Toxaphene	U		12	69	µg/Kg-dry	1	4/17/2017 21:04
Surr: Decachlorobiphenyl	*85.4*			*50-150*	*%REC*	1	4/17/2017 21:04
Surr: Tetrachloro-m-xylene	*82.9*			*50-150*	*%REC*	1	4/17/2017 21:04
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 28 (2-4) DUP - 041017
Collection Date: 4/10/2017 01:42 PM

Work Order: 1704626
Lab ID: 1704626-12
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.016**	J	**0.0027**	**0.016**	**mg/Kg-dry**	1	4/18/2017 19:57
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**4.6**		**0.23**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:03
Barium	**78**		**0.22**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:03
Cadmium	**0.098**	J	**0.013**	**0.63**	**mg/Kg-dry**	4	4/19/2017 00:03
Chromium	**12**		**0.076**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:03
Lead	**11**		**0.025**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:03
Selenium	**1.7**	J	**0.51**	**1.7**	**mg/Kg-dry**	4	4/21/2017 09:05
Silver	**0.030**	J	**0.013**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:03
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.7	48	µg/Kg-dry	1	4/19/2017 16:02
2-Methylnaphthalene	**110**		**7.8**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Acenaphthene	**65**		**3.4**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Acenaphthylene	U		4.2	48	µg/Kg-dry	1	4/19/2017 16:02
Anthracene	**100**		**1.7**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Benzo(a)anthracene	**530**		**2.9**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Benzo(a)pyrene	**190**		**1.2**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Benzo(b)fluoranthene	**670**		**1.8**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Benzo(g,h,i)perylene	**170**		**3.2**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Benzo(k)fluoranthene	**140**		**2.5**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Chrysene	**450**		**1.8**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Dibenzo(a,h)anthracene	**150**		**1.6**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Fluoranthene	**980**		**1.4**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Fluorene	U		1.6	48	µg/Kg-dry	1	4/19/2017 16:02
Indeno(1,2,3-cd)pyrene	**220**		**1.5**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Naphthalene	**96**		**8.9**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Phenanthrene	**700**		**1.6**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Pyrene	**850**		**1.7**	**48**	**µg/Kg-dry**	1	4/19/2017 16:02
Surr: 2-Fluorobiphenyl	*74.2*			*20-140*	*%REC*	1	4/19/2017 16:02
Surr: 4-Terphenyl-d14	*66.0*			*22-172*	*%REC*	1	4/19/2017 16:02
Surr: Nitrobenzene-d5	*68.2*			*8-140*	*%REC*	1	4/19/2017 16:02
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		11	39	µg/Kg-dry	1	4/14/2017 04:27
1,1,2,2-Tetrachloroethane	U		9.4	39	µg/Kg-dry	1	4/14/2017 04:27
1,1,2-Trichloroethane	U		12	39	µg/Kg-dry	1	4/14/2017 04:27
1,1-Dichloroethane	U		9.9	39	µg/Kg-dry	1	4/14/2017 04:27
1,1-Dichloroethene	U		10	39	µg/Kg-dry	1	4/14/2017 04:27
1,2-Dichloroethane	U		11	39	µg/Kg-dry	1	4/14/2017 04:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 28 (2-4) DUP - 041017
Collection Date: 4/10/2017 01:42 PM

Work Order: 1704626
Lab ID: 1704626-12
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	39	µg/Kg-dry	1	4/14/2017 04:27
2-Butanone	**140**	J	**52**	**260**	**µg/Kg-dry**	1	4/14/2017 04:27
2-Hexanone	U		26	39	µg/Kg-dry	1	4/14/2017 04:27
4-Methyl-2-pentanone	U		28	39	µg/Kg-dry	1	4/14/2017 04:27
Acetone	U		71	130	µg/Kg-dry	1	4/14/2017 04:27
Benzene	U		8.8	39	µg/Kg-dry	1	4/14/2017 04:27
Bromodichloromethane	U		10	39	µg/Kg-dry	1	4/14/2017 04:27
Bromoform	U		14	39	µg/Kg-dry	1	4/14/2017 04:27
Bromomethane	U		17	97	µg/Kg-dry	1	4/14/2017 04:27
Carbon disulfide	U		13	39	µg/Kg-dry	1	4/14/2017 04:27
Carbon tetrachloride	U		6.9	39	µg/Kg-dry	1	4/14/2017 04:27
Chlorobenzene	U		12	39	µg/Kg-dry	1	4/14/2017 04:27
Chloroethane	U		25	130	µg/Kg-dry	1	4/14/2017 04:27
Chloroform	U		13	39	µg/Kg-dry	1	4/14/2017 04:27
cis-1,2-Dichloroethene	U		11	39	µg/Kg-dry	1	4/14/2017 04:27
cis-1,3-Dichloropropene	U		15	39	µg/Kg-dry	1	4/14/2017 04:27
Dibromochloromethane	U		8.9	39	µg/Kg-dry	1	4/14/2017 04:27
Ethylbenzene	U		9.1	39	µg/Kg-dry	1	4/14/2017 04:27
Methyl tert-butyl ether	U		13	39	µg/Kg-dry	1	4/14/2017 04:27
Methylene chloride	U		18	39	µg/Kg-dry	1	4/14/2017 04:27
Styrene	U		27	39	µg/Kg-dry	1	4/14/2017 04:27
Tetrachloroethene	U		19	39	µg/Kg-dry	1	4/14/2017 04:27
Toluene	U		13	39	µg/Kg-dry	1	4/14/2017 04:27
trans-1,2-Dichloroethene	U		11	39	µg/Kg-dry	1	4/14/2017 04:27
trans-1,3-Dichloropropene	U		7.0	39	µg/Kg-dry	1	4/14/2017 04:27
Trichloroethene	U		10	39	µg/Kg-dry	1	4/14/2017 04:27
Vinyl chloride	U		12	39	µg/Kg-dry	1	4/14/2017 04:27
Xylenes, Total	U		30	120	µg/Kg-dry	1	4/14/2017 04:27
Surr: 1,2-Dichloroethane-d4	*99.4*			*70-130*	*%REC*	1	4/14/2017 04:27
Surr: 4-Bromofluorobenzene	*124*			*70-130*	*%REC*	1	4/14/2017 04:27
Surr: Dibromofluoromethane	*88.8*			*70-130*	*%REC*	1	4/14/2017 04:27
Surr: Toluene-d8	*113*			*70-130*	*%REC*	1	4/14/2017 04:27
MOISTURE		Method:	**SW3550C**				Analyst: **EDL**
Moisture	**13**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 28 (4-6) - 041017
Collection Date: 4/10/2017 01:45 PM

Work Order: 1704626
Lab ID: 1704626-13
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		10	78	µg/Kg-dry	1	4/17/2017 22:18
Aroclor 1221	U		10	78	µg/Kg-dry	1	4/17/2017 22:18
Aroclor 1232	U		10	78	µg/Kg-dry	1	4/17/2017 22:18
Aroclor 1242	U		10	78	µg/Kg-dry	1	4/17/2017 22:18
Aroclor 1248	U		10	78	µg/Kg-dry	1	4/17/2017 22:18
Aroclor 1254	U		7.1	78	µg/Kg-dry	1	4/17/2017 22:18
Aroclor 1260	U		7.1	78	µg/Kg-dry	1	4/17/2017 22:18
Aroclor 1262	U		7.1	78	µg/Kg-dry	1	4/17/2017 22:18
Aroclor 1268	U		7.1	78	µg/Kg-dry	1	4/17/2017 22:18
Surr: Decachlorobiphenyl	*62.6*			*40-140*	*%REC*	1	4/17/2017 22:18
Surr: Tetrachloro-m-xylene	*74.6*			*45-124*	*%REC*	1	4/17/2017 22:18
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		13	61	µg/Kg-dry	5	4/17/2017 21:17
4,4´-DDE	U		12	61	µg/Kg-dry	5	4/17/2017 21:17
4,4´-DDT	U		9.6	61	µg/Kg-dry	5	4/17/2017 21:17
Aldrin	U		12	61	µg/Kg-dry	5	4/17/2017 21:17
alpha-BHC	U		12	61	µg/Kg-dry	5	4/17/2017 21:17
alpha-Chlordane	U		11	61	µg/Kg-dry	5	4/17/2017 21:17
beta-BHC	U		11	61	µg/Kg-dry	5	4/17/2017 21:17
Chlordane, Technical	U		60	150	µg/Kg-dry	5	4/17/2017 21:17
delta-BHC	U		31	61	µg/Kg-dry	5	4/17/2017 21:17
Dieldrin	U		12	61	µg/Kg-dry	5	4/17/2017 21:17
Endosulfan I	U		9.7	61	µg/Kg-dry	5	4/17/2017 21:17
Endosulfan II	U		11	61	µg/Kg-dry	5	4/17/2017 21:17
Endosulfan sulfate	U		13	61	µg/Kg-dry	5	4/17/2017 21:17
Endrin	U		12	61	µg/Kg-dry	5	4/17/2017 21:17
Endrin aldehyde	U		10	61	µg/Kg-dry	5	4/17/2017 21:17
Endrin ketone	U		11	61	µg/Kg-dry	5	4/17/2017 21:17
gamma-BHC (Lindane)	U		15	61	µg/Kg-dry	5	4/17/2017 21:17
gamma-Chlordane	U		14	61	µg/Kg-dry	5	4/17/2017 21:17
Heptachlor	U		17	61	µg/Kg-dry	5	4/17/2017 21:17
Heptachlor epoxide	U		11	61	µg/Kg-dry	5	4/17/2017 21:17
Methoxychlor	U		10	61	µg/Kg-dry	5	4/17/2017 21:17
Toxaphene	U		65	360	µg/Kg-dry	5	4/17/2017 21:17
Surr: Decachlorobiphenyl	*68.7*			*50-150*	*%REC*	5	4/17/2017 21:17
Surr: Tetrachloro-m-xylene	*74.2*			*50-150*	*%REC*	5	4/17/2017 21:17
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 28 (4-6) - 041017
Collection Date: 4/10/2017 01:45 PM

Work Order: 1704626
Lab ID: 1704626-13
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.46**		**0.0065**	**0.040**	**mg/Kg-dry**	2	4/19/2017 13:29
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**4.3**		**0.23**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:09
Barium	**65**		**0.22**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:09
Cadmium	**0.15**	J	**0.012**	**0.62**	**mg/Kg-dry**	4	4/19/2017 00:09
Chromium	**15**		**0.074**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:09
Lead	**30**		**0.025**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:09
Selenium	**1.3**	J	**0.53**	**1.8**	**mg/Kg-dry**	4	4/21/2017 09:11
Silver	**0.043**	J	**0.012**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:09
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.9	49	µg/Kg-dry	1	4/19/2017 16:28
2-Methylnaphthalene	**250**		**7.9**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Acenaphthene	**760**		**3.5**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Acenaphthylene	**77**		**4.3**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Anthracene	**1,900**		**1.8**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Benzo(a)anthracene	**3,400**		**3.0**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Benzo(a)pyrene	**1,700**		**1.2**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Benzo(b)fluoranthene	**2,800**		**1.9**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Benzo(g,h,i)perylene	**710**		**3.3**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Benzo(k)fluoranthene	**700**		**2.5**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Chrysene	**2,400**		**1.9**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Dibenzo(a,h)anthracene	**340**		**1.6**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Fluoranthene	**6,400**		**1.4**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Fluorene	**1,100**		**1.6**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Indeno(1,2,3-cd)pyrene	**1,400**		**1.5**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Naphthalene	**240**		**9.2**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Phenanthrene	**5,700**		**1.7**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Pyrene	**5,500**		**1.8**	**49**	**µg/Kg-dry**	1	4/19/2017 16:28
Surr: 2-Fluorobiphenyl	*71.8*			*20-140*	*%REC*	1	4/19/2017 16:28
Surr: 4-Terphenyl-d14	*74.6*			*22-172*	*%REC*	1	4/19/2017 16:28
Surr: Nitrobenzene-d5	*68.3*			*8-140*	*%REC*	1	4/19/2017 16:28
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		12	42	µg/Kg-dry	1	4/14/2017 04:53
1,1,2,2-Tetrachloroethane	U		10	42	µg/Kg-dry	1	4/14/2017 04:53
1,1,2-Trichloroethane	U		13	42	µg/Kg-dry	1	4/14/2017 04:53
1,1-Dichloroethane	U		11	42	µg/Kg-dry	1	4/14/2017 04:53
1,1-Dichloroethene	U		11	42	µg/Kg-dry	1	4/14/2017 04:53
1,2-Dichloroethane	U		12	42	µg/Kg-dry	1	4/14/2017 04:53

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 28 (4-6) - 041017
Collection Date: 4/10/2017 01:45 PM

Work Order: 1704626
Lab ID: 1704626-13
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	42	µg/Kg-dry	1	4/14/2017 04:53
2-Butanone	**160**	J	**57**	**280**	**µg/Kg-dry**	1	4/14/2017 04:53
2-Hexanone	U		28	42	µg/Kg-dry	1	4/14/2017 04:53
4-Methyl-2-pentanone	U		31	42	µg/Kg-dry	1	4/14/2017 04:53
Acetone	**180**		**77**	**140**	**µg/Kg-dry**	1	4/14/2017 04:53
Benzene	**25**	J	**9.6**	**42**	**µg/Kg-dry**	1	4/14/2017 04:53
Bromodichloromethane	U		11	42	µg/Kg-dry	1	4/14/2017 04:53
Bromoform	U		15	42	µg/Kg-dry	1	4/14/2017 04:53
Bromomethane	U		18	110	µg/Kg-dry	1	4/14/2017 04:53
Carbon disulfide	U		14	42	µg/Kg-dry	1	4/14/2017 04:53
Carbon tetrachloride	U		7.5	42	µg/Kg-dry	1	4/14/2017 04:53
Chlorobenzene	U		13	42	µg/Kg-dry	1	4/14/2017 04:53
Chloroethane	U		27	140	µg/Kg-dry	1	4/14/2017 04:53
Chloroform	U		14	42	µg/Kg-dry	1	4/14/2017 04:53
cis-1,2-Dichloroethene	U		12	42	µg/Kg-dry	1	4/14/2017 04:53
cis-1,3-Dichloropropene	U		16	42	µg/Kg-dry	1	4/14/2017 04:53
Dibromochloromethane	U		9.6	42	µg/Kg-dry	1	4/14/2017 04:53
Ethylbenzene	**180**		**9.9**	**42**	**µg/Kg-dry**	1	4/14/2017 04:53
Methyl tert-butyl ether	U		14	42	µg/Kg-dry	1	4/14/2017 04:53
Methylene chloride	**47**		**19**	**42**	**µg/Kg-dry**	1	4/14/2017 04:53
Styrene	U		30	42	µg/Kg-dry	1	4/14/2017 04:53
Tetrachloroethene	U		21	42	µg/Kg-dry	1	4/14/2017 04:53
Toluene	**51**		**14**	**42**	**µg/Kg-dry**	1	4/14/2017 04:53
trans-1,2-Dichloroethene	U		12	42	µg/Kg-dry	1	4/14/2017 04:53
trans-1,3-Dichloropropene	U		7.6	42	µg/Kg-dry	1	4/14/2017 04:53
Trichloroethene	U		11	42	µg/Kg-dry	1	4/14/2017 04:53
Vinyl chloride	U		13	42	µg/Kg-dry	1	4/14/2017 04:53
Xylenes, Total	**240**		**33**	**130**	**µg/Kg-dry**	1	4/14/2017 04:53
Surr: 1,2-Dichloroethane-d4	*96.9*			*70-130*	*%REC*	1	4/14/2017 04:53
Surr: 4-Bromofluorobenzene	*153*	S		*70-130*	*%REC*	1	4/14/2017 04:53
Surr: Dibromofluoromethane	*86.2*			*70-130*	*%REC*	1	4/14/2017 04:53
Surr: Toluene-d8	*134*	S		*70-130*	*%REC*	1	4/14/2017 04:53

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**17**	**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 10 (6-8) - 041017
Collection Date: 4/10/2017 02:00 PM

Work Order: 1704626
Lab ID: 1704626-14
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		12	89	µg/Kg-dry	1	4/17/2017 22:33
Aroclor 1221	U		12	89	µg/Kg-dry	1	4/17/2017 22:33
Aroclor 1232	U		12	89	µg/Kg-dry	1	4/17/2017 22:33
Aroclor 1242	U		12	89	µg/Kg-dry	1	4/17/2017 22:33
Aroclor 1248	U		12	89	µg/Kg-dry	1	4/17/2017 22:33
Aroclor 1254	U		8.1	89	µg/Kg-dry	1	4/17/2017 22:33
Aroclor 1260	U		8.1	89	µg/Kg-dry	1	4/17/2017 22:33
Aroclor 1262	U		8.1	89	µg/Kg-dry	1	4/17/2017 22:33
Aroclor 1268	U		8.1	89	µg/Kg-dry	1	4/17/2017 22:33
Surr: Decachlorobiphenyl	*54.1*			*40-140*	*%REC*	1	4/17/2017 22:33
Surr: Tetrachloro-m-xylene	*69.3*			*45-124*	*%REC*	1	4/17/2017 22:33
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		3.0	14	µg/Kg-dry	1	4/17/2017 21:31
4,4´-DDE	U		2.6	14	µg/Kg-dry	1	4/17/2017 21:31
4,4´-DDT	U		2.2	14	µg/Kg-dry	1	4/17/2017 21:31
Aldrin	U		2.7	14	µg/Kg-dry	1	4/17/2017 21:31
alpha-BHC	U		2.6	14	µg/Kg-dry	1	4/17/2017 21:31
alpha-Chlordane	U		2.6	14	µg/Kg-dry	1	4/17/2017 21:31
beta-BHC	U		2.5	14	µg/Kg-dry	1	4/17/2017 21:31
Chlordane, Technical	U		13	34	µg/Kg-dry	1	4/17/2017 21:31
delta-BHC	U		7.0	14	µg/Kg-dry	1	4/17/2017 21:31
Dieldrin	U		2.6	14	µg/Kg-dry	1	4/17/2017 21:31
Endosulfan I	U		2.2	14	µg/Kg-dry	1	4/17/2017 21:31
Endosulfan II	U		2.6	14	µg/Kg-dry	1	4/17/2017 21:31
Endosulfan sulfate	U		2.8	14	µg/Kg-dry	1	4/17/2017 21:31
Endrin	U		2.8	14	µg/Kg-dry	1	4/17/2017 21:31
Endrin aldehyde	U		2.3	14	µg/Kg-dry	1	4/17/2017 21:31
Endrin ketone	U		2.5	14	µg/Kg-dry	1	4/17/2017 21:31
gamma-BHC (Lindane)	U		3.3	14	µg/Kg-dry	1	4/17/2017 21:31
gamma-Chlordane	U		3.1	14	µg/Kg-dry	1	4/17/2017 21:31
Heptachlor	U		3.8	14	µg/Kg-dry	1	4/17/2017 21:31
Heptachlor epoxide	U		2.5	14	µg/Kg-dry	1	4/17/2017 21:31
Methoxychlor	U		2.3	14	µg/Kg-dry	1	4/17/2017 21:31
Toxaphene	U		15	81	µg/Kg-dry	1	4/17/2017 21:31
Surr: Decachlorobiphenyl	*65.2*			*50-150*	*%REC*	1	4/17/2017 21:31
Surr: Tetrachloro-m-xylene	*90.1*			*50-150*	*%REC*	1	4/17/2017 21:31
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 10 (6-8) - 041017
Collection Date: 4/10/2017 02:00 PM

Work Order: 1704626
Lab ID: 1704626-14
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.025**		**0.0038**	**0.023**	**mg/Kg-dry**	1	4/18/2017 20:10
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**3.8**		**0.31**	**2.1**	**mg/Kg-dry**	4	4/19/2017 00:15
Barium	**110**		**0.29**	**2.1**	**mg/Kg-dry**	4	4/19/2017 00:15
Cadmium	U		0.017	0.83	mg/Kg-dry	4	4/19/2017 00:15
Chromium	**36**		**0.10**	**2.1**	**mg/Kg-dry**	4	4/19/2017 00:15
Lead	**19**		**0.033**	**2.1**	**mg/Kg-dry**	4	4/19/2017 00:15
Selenium	**1.8**	J	**0.54**	**1.8**	**mg/Kg-dry**	4	4/21/2017 09:17
Silver	**0.083**	J	**0.017**	**2.1**	**mg/Kg-dry**	4	4/19/2017 00:15
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		5.6	56	µg/Kg-dry	1	4/19/2017 16:54
2-Methylnaphthalene	**1,900**		**9.1**	**56**	**µg/Kg-dry**	1	4/19/2017 16:54
Acenaphthene	U		4.0	56	µg/Kg-dry	1	4/19/2017 16:54
Acenaphthylene	U		4.9	56	µg/Kg-dry	1	4/19/2017 16:54
Anthracene	U		2.0	56	µg/Kg-dry	1	4/19/2017 16:54
Benzo(a)anthracene	U		3.4	56	µg/Kg-dry	1	4/19/2017 16:54
Benzo(a)pyrene	U		1.4	56	µg/Kg-dry	1	4/19/2017 16:54
Benzo(b)fluoranthene	U		2.2	56	µg/Kg-dry	1	4/19/2017 16:54
Benzo(g,h,i)perylene	U		3.8	56	µg/Kg-dry	1	4/19/2017 16:54
Benzo(k)fluoranthene	U		2.9	56	µg/Kg-dry	1	4/19/2017 16:54
Chrysene	U		2.2	56	µg/Kg-dry	1	4/19/2017 16:54
Dibenzo(a,h)anthracene	U		1.8	56	µg/Kg-dry	1	4/19/2017 16:54
Fluoranthene	U		1.6	56	µg/Kg-dry	1	4/19/2017 16:54
Fluorene	U		1.8	56	µg/Kg-dry	1	4/19/2017 16:54
Indeno(1,2,3-cd)pyrene	U		1.7	56	µg/Kg-dry	1	4/19/2017 16:54
Naphthalene	**3,200**		**11**	**56**	**µg/Kg-dry**	1	4/19/2017 16:54
Phenanthrene	U		1.9	56	µg/Kg-dry	1	4/19/2017 16:54
Pyrene	U		2.0	56	µg/Kg-dry	1	4/19/2017 16:54
Surr: 2-Fluorobiphenyl	*73.7*			*20-140*	*%REC*	1	4/19/2017 16:54
Surr: 4-Terphenyl-d14	*82.5*			*22-172*	*%REC*	1	4/19/2017 16:54
Surr: Nitrobenzene-d5	*64.2*			*8-140*	*%REC*	1	4/19/2017 16:54
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		15	51	µg/Kg-dry	1	4/14/2017 05:19
1,1,2,2-Tetrachloroethane	U		12	51	µg/Kg-dry	1	4/14/2017 05:19
1,1,2-Trichloroethane	U		15	51	µg/Kg-dry	1	4/14/2017 05:19
1,1-Dichloroethane	U		13	51	µg/Kg-dry	1	4/14/2017 05:19
1,1-Dichloroethene	U		14	51	µg/Kg-dry	1	4/14/2017 05:19
1,2-Dichloroethane	U		14	51	µg/Kg-dry	1	4/14/2017 05:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 10 (6-8) - 041017
Collection Date: 4/10/2017 02:00 PM

Work Order: 1704626
Lab ID: 1704626-14
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		14	51	µg/Kg-dry	1	4/14/2017 05:19
2-Butanone	U		69	340	µg/Kg-dry	1	4/14/2017 05:19
2-Hexanone	U		34	51	µg/Kg-dry	1	4/14/2017 05:19
4-Methyl-2-pentanone	U		37	51	µg/Kg-dry	1	4/14/2017 05:19
Acetone	U		93	170	µg/Kg-dry	1	4/14/2017 05:19
Benzene	**1,500**		**12**	**51**	**µg/Kg-dry**	1	4/14/2017 05:19
Bromodichloromethane	U		14	51	µg/Kg-dry	1	4/14/2017 05:19
Bromoform	U		18	51	µg/Kg-dry	1	4/14/2017 05:19
Bromomethane	U		22	130	µg/Kg-dry	1	4/14/2017 05:19
Carbon disulfide	U		17	51	µg/Kg-dry	1	4/14/2017 05:19
Carbon tetrachloride	U		9.1	51	µg/Kg-dry	1	4/14/2017 05:19
Chlorobenzene	U		15	51	µg/Kg-dry	1	4/14/2017 05:19
Chloroethane	U		33	170	µg/Kg-dry	1	4/14/2017 05:19
Chloroform	U		17	51	µg/Kg-dry	1	4/14/2017 05:19
cis-1,2-Dichloroethene	U		14	51	µg/Kg-dry	1	4/14/2017 05:19
cis-1,3-Dichloropropene	U		20	51	µg/Kg-dry	1	4/14/2017 05:19
Dibromochloromethane	U		12	51	µg/Kg-dry	1	4/14/2017 05:19
Ethylbenzene	**14,000**		**120**	**510**	**µg/Kg-dry**	10	4/15/2017 11:15
Methyl tert-butyl ether	U		17	51	µg/Kg-dry	1	4/14/2017 05:19
Methylene chloride	U		23	51	µg/Kg-dry	1	4/14/2017 05:19
Styrene	U		36	51	µg/Kg-dry	1	4/14/2017 05:19
Tetrachloroethene	U		25	51	µg/Kg-dry	1	4/14/2017 05:19
Toluene	**680**		**17**	**51**	**µg/Kg-dry**	1	4/14/2017 05:19
trans-1,2-Dichloroethene	U		14	51	µg/Kg-dry	1	4/14/2017 05:19
trans-1,3-Dichloropropene	U		9.1	51	µg/Kg-dry	1	4/14/2017 05:19
Trichloroethene	U		14	51	µg/Kg-dry	1	4/14/2017 05:19
Vinyl chloride	U		16	51	µg/Kg-dry	1	4/14/2017 05:19
Xylenes, Total	**36,000**		**400**	**1,500**	**µg/Kg-dry**	10	4/15/2017 11:15
Surr: 1,2-Dichloroethane-d4	*94.7*			*70-130*	*%REC*	1	4/14/2017 05:19
Surr: 1,2-Dichloroethane-d4	*97.5*			*70-130*	*%REC*	10	4/15/2017 11:15
Surr: 4-Bromofluorobenzene	*172*	S		*70-130*	*%REC*	1	4/14/2017 05:19
Surr: 4-Bromofluorobenzene	*107*			*70-130*	*%REC*	10	4/15/2017 11:15
Surr: Dibromofluoromethane	*84.6*			*70-130*	*%REC*	1	4/14/2017 05:19
Surr: Dibromofluoromethane	*90.6*			*70-130*	*%REC*	10	4/15/2017 11:15
Surr: Toluene-d8	*188*	S		*70-130*	*%REC*	1	4/14/2017 05:19
Surr: Toluene-d8	*99.2*			*70-130*	*%REC*	10	4/15/2017 11:15
MOISTURE			Method: **SW3550C**				Analyst: **EDL**
Moisture	**26**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 30 (0-2) - 041017
Collection Date: 4/10/2017 02:05 PM

Work Order: 1704626
Lab ID: 1704626-15
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		10	79	µg/Kg-dry	1	4/17/2017 23:16
Aroclor 1221	U		10	79	µg/Kg-dry	1	4/17/2017 23:16
Aroclor 1232	U		10	79	µg/Kg-dry	1	4/17/2017 23:16
Aroclor 1242	U		10	79	µg/Kg-dry	1	4/17/2017 23:16
Aroclor 1248	U		10	79	µg/Kg-dry	1	4/17/2017 23:16
Aroclor 1254	U		7.2	79	µg/Kg-dry	1	4/17/2017 23:16
Aroclor 1260	U		7.2	79	µg/Kg-dry	1	4/17/2017 23:16
Aroclor 1262	U		7.2	79	µg/Kg-dry	1	4/17/2017 23:16
Aroclor 1268	U		7.2	79	µg/Kg-dry	1	4/17/2017 23:16
Surr: Decachlorobiphenyl	*54.4*			*40-140*	*%REC*	1	4/17/2017 23:16
Surr: Tetrachloro-m-xylene	*69.7*			*45-124*	*%REC*	1	4/17/2017 23:16
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.6	12	µg/Kg-dry	1	4/17/2017 22:11
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:11
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/17/2017 22:11
Aldrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 22:11
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:11
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:11
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/17/2017 22:11
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/17/2017 22:11
delta-BHC	U		6.2	12	µg/Kg-dry	1	4/17/2017 22:11
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:11
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/17/2017 22:11
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:11
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/17/2017 22:11
Endrin	U		2.5	12	µg/Kg-dry	1	4/17/2017 22:11
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/17/2017 22:11
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:11
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/17/2017 22:11
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/17/2017 22:11
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/17/2017 22:11
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/17/2017 22:11
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/17/2017 22:11
Toxaphene	U		13	72	µg/Kg-dry	1	4/17/2017 22:11
Surr: Decachlorobiphenyl	*55.8*			*50-150*	*%REC*	1	4/17/2017 22:11
Surr: Tetrachloro-m-xylene	*69.3*			*50-150*	*%REC*	1	4/17/2017 22:11
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 30 (0-2) - 041017
Collection Date: 4/10/2017 02:05 PM

Work Order: 1704626
Lab ID: 1704626-15
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.052**		**0.0032**	**0.019**	**mg/Kg-dry**	1	4/18/2017 20:13
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**5.2**		**0.25**	**1.7**	**mg/Kg-dry**	4	4/19/2017 00:22
Barium	**110**		**0.23**	**1.7**	**mg/Kg-dry**	4	4/19/2017 00:22
Cadmium	U		0.013	0.67	mg/Kg-dry	4	4/19/2017 00:22
Chromium	**24**		**0.080**	**1.7**	**mg/Kg-dry**	4	4/19/2017 00:22
Lead	**33**		**0.027**	**1.7**	**mg/Kg-dry**	4	4/19/2017 00:22
Selenium	**1.2**	J	**0.50**	**1.7**	**mg/Kg-dry**	4	4/21/2017 09:23
Silver	**0.085**	J	**0.013**	**1.7**	**mg/Kg-dry**	4	4/19/2017 00:22
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.9	49	µg/Kg-dry	1	4/19/2017 17:20
2-Methylnaphthalene	**240**		**8.0**	**49**	**µg/Kg-dry**	1	4/19/2017 17:20
Acenaphthene	U		3.5	49	µg/Kg-dry	1	4/19/2017 17:20
Acenaphthylene	U		4.3	49	µg/Kg-dry	1	4/19/2017 17:20
Anthracene	U		1.8	49	µg/Kg-dry	1	4/19/2017 17:20
Benzo(a)anthracene	U		3.0	49	µg/Kg-dry	1	4/19/2017 17:20
Benzo(a)pyrene	U		1.2	49	µg/Kg-dry	1	4/19/2017 17:20
Benzo(b)fluoranthene	U		1.9	49	µg/Kg-dry	1	4/19/2017 17:20
Benzo(g,h,i)perylene	U		3.3	49	µg/Kg-dry	1	4/19/2017 17:20
Benzo(k)fluoranthene	U		2.5	49	µg/Kg-dry	1	4/19/2017 17:20
Chrysene	U		1.9	49	µg/Kg-dry	1	4/19/2017 17:20
Dibenzo(a,h)anthracene	U		1.6	49	µg/Kg-dry	1	4/19/2017 17:20
Fluoranthene	**150**		**1.4**	**49**	**µg/Kg-dry**	1	4/19/2017 17:20
Fluorene	U		1.6	49	µg/Kg-dry	1	4/19/2017 17:20
Indeno(1,2,3-cd)pyrene	U		1.5	49	µg/Kg-dry	1	4/19/2017 17:20
Naphthalene	**250**		**9.2**	**49**	**µg/Kg-dry**	1	4/19/2017 17:20
Phenanthrene	**120**		**1.7**	**49**	**µg/Kg-dry**	1	4/19/2017 17:20
Pyrene	U		1.8	49	µg/Kg-dry	1	4/19/2017 17:20
Surr: 2-Fluorobiphenyl	*78.5*			*20-140*	*%REC*	1	4/19/2017 17:20
Surr: 4-Terphenyl-d14	*62.6*			*22-172*	*%REC*	1	4/19/2017 17:20
Surr: Nitrobenzene-d5	*69.2*			*8-140*	*%REC*	1	4/19/2017 17:20
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **BG**
1,1,1-Trichloroethane	U		12	42	µg/Kg-dry	1	4/15/2017 04:22
1,1,2,2-Tetrachloroethane	U		10	42	µg/Kg-dry	1	4/15/2017 04:22
1,1,2-Trichloroethane	U		13	42	µg/Kg-dry	1	4/15/2017 04:22
1,1-Dichloroethane	U		11	42	µg/Kg-dry	1	4/15/2017 04:22
1,1-Dichloroethene	U		11	42	µg/Kg-dry	1	4/15/2017 04:22
1,2-Dichloroethane	U		12	42	µg/Kg-dry	1	4/15/2017 04:22

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 30 (0-2) - 041017
Collection Date: 4/10/2017 02:05 PM

Work Order: 1704626
Lab ID: 1704626-15
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	42	µg/Kg-dry	1	4/15/2017 04:22
2-Butanone	U		57	280	µg/Kg-dry	1	4/15/2017 04:22
2-Hexanone	U		28	42	µg/Kg-dry	1	4/15/2017 04:22
4-Methyl-2-pentanone	U		31	42	µg/Kg-dry	1	4/15/2017 04:22
Acetone	U		77	140	µg/Kg-dry	1	4/15/2017 04:22
Benzene	**47**		**9.6**	**42**	**µg/Kg-dry**	1	4/15/2017 04:22
Bromodichloromethane	U		11	42	µg/Kg-dry	1	4/15/2017 04:22
Bromoform	U		15	42	µg/Kg-dry	1	4/15/2017 04:22
Bromomethane	U		18	110	µg/Kg-dry	1	4/15/2017 04:22
Carbon disulfide	U		14	42	µg/Kg-dry	1	4/15/2017 04:22
Carbon tetrachloride	U		7.5	42	µg/Kg-dry	1	4/15/2017 04:22
Chlorobenzene	U		13	42	µg/Kg-dry	1	4/15/2017 04:22
Chloroethane	U		27	140	µg/Kg-dry	1	4/15/2017 04:22
Chloroform	U		14	42	µg/Kg-dry	1	4/15/2017 04:22
cis-1,2-Dichloroethene	U		12	42	µg/Kg-dry	1	4/15/2017 04:22
cis-1,3-Dichloropropene	U		16	42	µg/Kg-dry	1	4/15/2017 04:22
Dibromochloromethane	U		9.6	42	µg/Kg-dry	1	4/15/2017 04:22
Ethylbenzene	**200**		**9.9**	**42**	**µg/Kg-dry**	1	4/15/2017 04:22
Methyl tert-butyl ether	U		14	42	µg/Kg-dry	1	4/15/2017 04:22
Methylene chloride	**25**	J	**19**	**42**	**µg/Kg-dry**	1	4/15/2017 04:22
Styrene	U		30	42	µg/Kg-dry	1	4/15/2017 04:22
Tetrachloroethene	U		21	42	µg/Kg-dry	1	4/15/2017 04:22
Toluene	**140**		**14**	**42**	**µg/Kg-dry**	1	4/15/2017 04:22
trans-1,2-Dichloroethene	U		12	42	µg/Kg-dry	1	4/15/2017 04:22
trans-1,3-Dichloropropene	U		7.6	42	µg/Kg-dry	1	4/15/2017 04:22
Trichloroethene	U		11	42	µg/Kg-dry	1	4/15/2017 04:22
Vinyl chloride	U		13	42	µg/Kg-dry	1	4/15/2017 04:22
Xylenes, Total	**620**		**33**	**130**	**µg/Kg-dry**	1	4/15/2017 04:22
Surr: 1,2-Dichloroethane-d4	*103*			*70-130*	*%REC*	1	4/15/2017 04:22
Surr: 4-Bromofluorobenzene	*100*			*70-130*	*%REC*	1	4/15/2017 04:22
Surr: Dibromofluoromethane	*95.9*			*70-130*	*%REC*	1	4/15/2017 04:22
Surr: Toluene-d8	*96.5*			*70-130*	*%REC*	1	4/15/2017 04:22

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**17**	**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 30 (4-6) - 041017
Collection Date: 4/10/2017 02:10 PM

Work Order: 1704626
Lab ID: 1704626-16
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		10	77	µg/Kg-dry	1	4/17/2017 23:30
Aroclor 1221	U		10	77	µg/Kg-dry	1	4/17/2017 23:30
Aroclor 1232	U		10	77	µg/Kg-dry	1	4/17/2017 23:30
Aroclor 1242	U		10	77	µg/Kg-dry	1	4/17/2017 23:30
Aroclor 1248	U		10	77	µg/Kg-dry	1	4/17/2017 23:30
Aroclor 1254	U		7.0	77	µg/Kg-dry	1	4/17/2017 23:30
Aroclor 1260	U		7.0	77	µg/Kg-dry	1	4/17/2017 23:30
Aroclor 1262	U		7.0	77	µg/Kg-dry	1	4/17/2017 23:30
Aroclor 1268	U		7.0	77	µg/Kg-dry	1	4/17/2017 23:30
Surr: Decachlorobiphenyl	*70.0*			*40-140*	*%REC*	1	4/17/2017 23:30
Surr: Tetrachloro-m-xylene	*77.5*			*45-124*	*%REC*	1	4/17/2017 23:30
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.6	12	µg/Kg-dry	1	4/17/2017 22:24
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:24
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/17/2017 22:24
Aldrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 22:24
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:24
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:24
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/17/2017 22:24
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/17/2017 22:24
delta-BHC	U		6.2	12	µg/Kg-dry	1	4/17/2017 22:24
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:24
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/17/2017 22:24
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:24
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/17/2017 22:24
Endrin	U		2.5	12	µg/Kg-dry	1	4/17/2017 22:24
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/17/2017 22:24
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:24
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/17/2017 22:24
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/17/2017 22:24
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/17/2017 22:24
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/17/2017 22:24
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/17/2017 22:24
Toxaphene	U		13	72	µg/Kg-dry	1	4/17/2017 22:24
Surr: Decachlorobiphenyl	*73.8*			*50-150*	*%REC*	1	4/17/2017 22:24
Surr: Tetrachloro-m-xylene	*79.4*			*50-150*	*%REC*	1	4/17/2017 22:24
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 30 (4-6) - 041017
Collection Date: 4/10/2017 02:10 PM

Work Order: 1704626
Lab ID: 1704626-16
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.18**		**0.0030**	**0.018**	**mg/Kg-dry**	1	4/19/2017 13:51
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**4.5**		**0.24**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:28
Barium	**55**		**0.23**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:28
Cadmium	**0.032**	J	**0.013**	**0.65**	**mg/Kg-dry**	4	4/19/2017 00:28
Chromium	**20**		**0.078**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:28
Lead	**18**		**0.026**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:28
Selenium	**0.75**	J	**0.54**	**1.8**	**mg/Kg-dry**	4	4/21/2017 10:09
Silver	**0.029**	J	**0.013**	**1.6**	**mg/Kg-dry**	4	4/19/2017 00:28
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.9	49	µg/Kg-dry	1	4/19/2017 17:46
2-Methylnaphthalene	**110**		**8.0**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Acenaphthene	**120**		**3.5**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Acenaphthylene	U		4.3	49	µg/Kg-dry	1	4/19/2017 17:46
Anthracene	**240**		**1.8**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Benzo(a)anthracene	**640**		**3.0**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Benzo(a)pyrene	**200**		**1.2**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Benzo(b)fluoranthene	**690**		**1.9**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Benzo(g,h,i)perylene	**180**		**3.3**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Benzo(k)fluoranthene	**120**		**2.5**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Chrysene	**390**		**1.9**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Dibenzo(a,h)anthracene	**120**		**1.6**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Fluoranthene	**1,200**		**1.4**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Fluorene	**140**		**1.6**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Indeno(1,2,3-cd)pyrene	**190**		**1.5**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Naphthalene	**130**		**9.2**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Phenanthrene	**880**		**1.7**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Pyrene	**1,000**		**1.8**	**49**	**µg/Kg-dry**	1	4/19/2017 17:46
Surr: 2-Fluorobiphenyl	*80.2*			*20-140*	*%REC*	1	4/19/2017 17:46
Surr: 4-Terphenyl-d14	*70.9*			*22-172*	*%REC*	1	4/19/2017 17:46
Surr: Nitrobenzene-d5	*68.1*			*8-140*	*%REC*	1	4/19/2017 17:46
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 06:10
1,1,2,2-Tetrachloroethane	U		10	41	µg/Kg-dry	1	4/14/2017 06:10
1,1,2-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 06:10
1,1-Dichloroethane	U		11	41	µg/Kg-dry	1	4/14/2017 06:10
1,1-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 06:10
1,2-Dichloroethane	U		11	41	µg/Kg-dry	1	4/14/2017 06:10

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 30 (4-6) - 041017
Collection Date: 4/10/2017 02:10 PM

Work Order: 1704626
Lab ID: 1704626-16
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	41	µg/Kg-dry	1	4/14/2017 06:10
2-Butanone	**130**	J	**56**	**280**	**µg/Kg-dry**	1	4/14/2017 06:10
2-Hexanone	U		27	41	µg/Kg-dry	1	4/14/2017 06:10
4-Methyl-2-pentanone	U		30	41	µg/Kg-dry	1	4/14/2017 06:10
Acetone	**230**		**75**	**140**	**µg/Kg-dry**	1	4/14/2017 06:10
Benzene	**45**		**9.4**	**41**	**µg/Kg-dry**	1	4/14/2017 06:10
Bromodichloromethane	U		11	41	µg/Kg-dry	1	4/14/2017 06:10
Bromoform	U		15	41	µg/Kg-dry	1	4/14/2017 06:10
Bromomethane	U		18	100	µg/Kg-dry	1	4/14/2017 06:10
Carbon disulfide	U		14	41	µg/Kg-dry	1	4/14/2017 06:10
Carbon tetrachloride	U		7.3	41	µg/Kg-dry	1	4/14/2017 06:10
Chlorobenzene	U		12	41	µg/Kg-dry	1	4/14/2017 06:10
Chloroethane	U		26	140	µg/Kg-dry	1	4/14/2017 06:10
Chloroform	U		14	41	µg/Kg-dry	1	4/14/2017 06:10
cis-1,2-Dichloroethene	U		12	41	µg/Kg-dry	1	4/14/2017 06:10
cis-1,3-Dichloropropene	U		16	41	µg/Kg-dry	1	4/14/2017 06:10
Dibromochloromethane	U		9.4	41	µg/Kg-dry	1	4/14/2017 06:10
Ethylbenzene	**970**		**9.7**	**41**	**µg/Kg-dry**	1	4/14/2017 06:10
Methyl tert-butyl ether	U		13	41	µg/Kg-dry	1	4/14/2017 06:10
Methylene chloride	**48**		**19**	**41**	**µg/Kg-dry**	1	4/14/2017 06:10
Styrene	U		29	41	µg/Kg-dry	1	4/14/2017 06:10
Tetrachloroethene	U		20	41	µg/Kg-dry	1	4/14/2017 06:10
Toluene	**50**		**14**	**41**	**µg/Kg-dry**	1	4/14/2017 06:10
trans-1,2-Dichloroethene	U		12	41	µg/Kg-dry	1	4/14/2017 06:10
trans-1,3-Dichloropropene	U		7.4	41	µg/Kg-dry	1	4/14/2017 06:10
Trichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 06:10
Vinyl chloride	U		13	41	µg/Kg-dry	1	4/14/2017 06:10
Xylenes, Total	**2,300**		**32**	**120**	**µg/Kg-dry**	1	4/14/2017 06:10
Surr: 1,2-Dichloroethane-d4	*96.2*			*70-130*	*%REC*	1	4/14/2017 06:10
Surr: 4-Bromofluorobenzene	*109*			*70-130*	*%REC*	1	4/14/2017 06:10
Surr: Dibromofluoromethane	*82.7*			*70-130*	*%REC*	1	4/14/2017 06:10
Surr: Toluene-d8	*105*			*70-130*	*%REC*	1	4/14/2017 06:10

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**16**	**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 29 (4-6) - 041017
Collection Date: 4/10/2017 02:15 PM

Work Order: 1704626
Lab ID: 1704626-17
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		10	78	µg/Kg-dry	1	4/17/2017 23:44
Aroclor 1221	U		10	78	µg/Kg-dry	1	4/17/2017 23:44
Aroclor 1232	U		10	78	µg/Kg-dry	1	4/17/2017 23:44
Aroclor 1242	U		10	78	µg/Kg-dry	1	4/17/2017 23:44
Aroclor 1248	U		10	78	µg/Kg-dry	1	4/17/2017 23:44
Aroclor 1254	U		7.1	78	µg/Kg-dry	1	4/17/2017 23:44
Aroclor 1260	U		7.1	78	µg/Kg-dry	1	4/17/2017 23:44
Aroclor 1262	U		7.1	78	µg/Kg-dry	1	4/17/2017 23:44
Aroclor 1268	U		7.1	78	µg/Kg-dry	1	4/17/2017 23:44
Surr: Decachlorobiphenyl	*66.9*			*40-140*	*%REC*	1	4/17/2017 23:44
Surr: Tetrachloro-m-xylene	*75.2*			*45-124*	*%REC*	1	4/17/2017 23:44
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		2.7	12	µg/Kg-dry	1	4/17/2017 22:37
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:37
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/17/2017 22:37
Aldrin	U		2.4	12	µg/Kg-dry	1	4/17/2017 22:37
alpha-BHC	U		2.4	12	µg/Kg-dry	1	4/17/2017 22:37
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:37
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/17/2017 22:37
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/17/2017 22:37
delta-BHC	U		6.3	12	µg/Kg-dry	1	4/17/2017 22:37
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:37
Endosulfan I	U		2.0	12	µg/Kg-dry	1	4/17/2017 22:37
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:37
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/17/2017 22:37
Endrin	U		2.5	12	µg/Kg-dry	1	4/17/2017 22:37
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/17/2017 22:37
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/17/2017 22:37
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/17/2017 22:37
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/17/2017 22:37
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/17/2017 22:37
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/17/2017 22:37
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/17/2017 22:37
Toxaphene	U		13	73	µg/Kg-dry	1	4/17/2017 22:37
Surr: Decachlorobiphenyl	*71.8*			*50-150*	*%REC*	1	4/17/2017 22:37
Surr: Tetrachloro-m-xylene	*96.4*			*50-150*	*%REC*	1	4/17/2017 22:37
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 29 (4-6) - 041017
Collection Date: 4/10/2017 02:15 PM

Work Order: 1704626
Lab ID: 1704626-17
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.055**		**0.0029**	**0.018**	**mg/Kg-dry**	1	4/19/2017 13:53
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**3.3**		**0.27**	**1.8**	**mg/Kg-dry**	4	4/19/2017 00:52
Barium	**77**		**0.26**	**1.8**	**mg/Kg-dry**	4	4/19/2017 00:52
Cadmium	**0.061**	J	**0.015**	**0.73**	**mg/Kg-dry**	4	4/19/2017 00:52
Chromium	**22**		**0.088**	**1.8**	**mg/Kg-dry**	4	4/19/2017 00:52
Lead	**17**		**0.029**	**1.8**	**mg/Kg-dry**	4	4/19/2017 00:52
Selenium	**1.2**	J	**0.54**	**1.8**	**mg/Kg-dry**	4	4/21/2017 10:33
Silver	**0.067**	J	**0.015**	**1.8**	**mg/Kg-dry**	4	4/19/2017 00:52
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		5.0	50	µg/Kg-dry	1	4/19/2017 18:13
2-Methylnaphthalene	**590**		**8.2**	**50**	**µg/Kg-dry**	1	4/19/2017 18:13
Acenaphthene	U		3.6	50	µg/Kg-dry	1	4/19/2017 18:13
Acenaphthylene	U		4.4	50	µg/Kg-dry	1	4/19/2017 18:13
Anthracene	U		1.8	50	µg/Kg-dry	1	4/19/2017 18:13
Benzo(a)anthracene	U		3.1	50	µg/Kg-dry	1	4/19/2017 18:13
Benzo(a)pyrene	U		1.3	50	µg/Kg-dry	1	4/19/2017 18:13
Benzo(b)fluoranthene	U		1.9	50	µg/Kg-dry	1	4/19/2017 18:13
Benzo(g,h,i)perylene	U		3.4	50	µg/Kg-dry	1	4/19/2017 18:13
Benzo(k)fluoranthene	U		2.6	50	µg/Kg-dry	1	4/19/2017 18:13
Chrysene	U		1.9	50	µg/Kg-dry	1	4/19/2017 18:13
Dibenzo(a,h)anthracene	U		1.6	50	µg/Kg-dry	1	4/19/2017 18:13
Fluoranthene	**130**		**1.4**	**50**	**µg/Kg-dry**	1	4/19/2017 18:13
Fluorene	U		1.6	50	µg/Kg-dry	1	4/19/2017 18:13
Indeno(1,2,3-cd)pyrene	U		1.5	50	µg/Kg-dry	1	4/19/2017 18:13
Naphthalene	**1,400**		**9.4**	**50**	**µg/Kg-dry**	1	4/19/2017 18:13
Phenanthrene	**94**		**1.7**	**50**	**µg/Kg-dry**	1	4/19/2017 18:13
Pyrene	**51**		**1.8**	**50**	**µg/Kg-dry**	1	4/19/2017 18:13
Surr: 2-Fluorobiphenyl	*71.0*			*20-140*	*%REC*	1	4/19/2017 18:13
Surr: 4-Terphenyl-d14	*82.8*			*22-172*	*%REC*	1	4/19/2017 18:13
Surr: Nitrobenzene-d5	*63.9*			*8-140*	*%REC*	1	4/19/2017 18:13
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		12	43	µg/Kg-dry	1	4/14/2017 06:36
1,1,2,2-Tetrachloroethane	U		10	43	µg/Kg-dry	1	4/14/2017 06:36
1,1,2-Trichloroethane	U		13	43	µg/Kg-dry	1	4/14/2017 06:36
1,1-Dichloroethane	U		11	43	µg/Kg-dry	1	4/14/2017 06:36
1,1-Dichloroethene	U		12	43	µg/Kg-dry	1	4/14/2017 06:36
1,2-Dichloroethane	U		12	43	µg/Kg-dry	1	4/14/2017 06:36

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 29 (4-6) - 041017
Collection Date: 4/10/2017 02:15 PM

Work Order: 1704626
Lab ID: 1704626-17
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	43	µg/Kg-dry	1	4/14/2017 06:36
2-Butanone	U		58	290	µg/Kg-dry	1	4/14/2017 06:36
2-Hexanone	U		29	43	µg/Kg-dry	1	4/14/2017 06:36
4-Methyl-2-pentanone	U		32	43	µg/Kg-dry	1	4/14/2017 06:36
Acetone	**270**		**78**	**140**	**µg/Kg-dry**	1	4/14/2017 06:36
Benzene	**200**		**9.8**	**43**	**µg/Kg-dry**	1	4/14/2017 06:36
Bromodichloromethane	U		12	43	µg/Kg-dry	1	4/14/2017 06:36
Bromoform	U		15	43	µg/Kg-dry	1	4/14/2017 06:36
Bromomethane	U		19	110	µg/Kg-dry	1	4/14/2017 06:36
Carbon disulfide	U		15	43	µg/Kg-dry	1	4/14/2017 06:36
Carbon tetrachloride	U		7.7	43	µg/Kg-dry	1	4/14/2017 06:36
Chlorobenzene	U		13	43	µg/Kg-dry	1	4/14/2017 06:36
Chloroethane	U		27	140	µg/Kg-dry	1	4/14/2017 06:36
Chloroform	U		15	43	µg/Kg-dry	1	4/14/2017 06:36
cis-1,2-Dichloroethene	U		12	43	µg/Kg-dry	1	4/14/2017 06:36
cis-1,3-Dichloropropene	U		17	43	µg/Kg-dry	1	4/14/2017 06:36
Dibromochloromethane	U		9.8	43	µg/Kg-dry	1	4/14/2017 06:36
Ethylbenzene	**1,300**		**10**	**43**	**µg/Kg-dry**	1	4/14/2017 06:36
Methyl tert-butyl ether	U		14	43	µg/Kg-dry	1	4/14/2017 06:36
Methylene chloride	U		20	43	µg/Kg-dry	1	4/14/2017 06:36
Styrene	U		30	43	µg/Kg-dry	1	4/14/2017 06:36
Tetrachloroethene	U		21	43	µg/Kg-dry	1	4/14/2017 06:36
Toluene	**25**	J	**14**	**43**	**µg/Kg-dry**	1	4/14/2017 06:36
trans-1,2-Dichloroethene	U		12	43	µg/Kg-dry	1	4/14/2017 06:36
trans-1,3-Dichloropropene	U		7.7	43	µg/Kg-dry	1	4/14/2017 06:36
Trichloroethene	U		12	43	µg/Kg-dry	1	4/14/2017 06:36
Vinyl chloride	U		14	43	µg/Kg-dry	1	4/14/2017 06:36
Xylenes, Total	**19,000**		**33**	**130**	**µg/Kg-dry**	1	4/14/2017 06:36
Surr: 1,2-Dichloroethane-d4	*98.4*			*70-130*	*%REC*	1	4/14/2017 06:36
Surr: 4-Bromofluorobenzene	*106*			*70-130*	*%REC*	1	4/14/2017 06:36
Surr: Dibromofluoromethane	*86.4*			*70-130*	*%REC*	1	4/14/2017 06:36
Surr: Toluene-d8	*101*			*70-130*	*%REC*	1	4/14/2017 06:36

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**18**	**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 13 (4-6) - 041017
Collection Date: 4/10/2017 03:35 PM

Work Order: 1704626
Lab ID: 1704626-18
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/17/17		Analyst: **EB**
Aroclor 1016	U		10	78	µg/Kg-dry	1	4/17/2017 23:59
Aroclor 1221	U		10	78	µg/Kg-dry	1	4/17/2017 23:59
Aroclor 1232	U		10	78	µg/Kg-dry	1	4/17/2017 23:59
Aroclor 1242	U		10	78	µg/Kg-dry	1	4/17/2017 23:59
Aroclor 1248	U		10	78	µg/Kg-dry	1	4/17/2017 23:59
Aroclor 1254	U		7.1	78	µg/Kg-dry	1	4/17/2017 23:59
Aroclor 1260	U		7.1	78	µg/Kg-dry	1	4/17/2017 23:59
Aroclor 1262	U		7.1	78	µg/Kg-dry	1	4/17/2017 23:59
Aroclor 1268	U		7.1	78	µg/Kg-dry	1	4/17/2017 23:59
Surr: Decachlorobiphenyl	*68.5*			*40-140*	*%REC*	1	4/17/2017 23:59
Surr: Tetrachloro-m-xylene	*71.9*			*45-124*	*%REC*	1	4/17/2017 23:59
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/17/17		Analyst: **JF**
4,4´-DDD	U		13	59	µg/Kg-dry	5	4/17/2017 22:50
4,4´-DDE	U		11	59	µg/Kg-dry	5	4/17/2017 22:50
4,4´-DDT	U		9.4	59	µg/Kg-dry	5	4/17/2017 22:50
Aldrin	U		12	59	µg/Kg-dry	5	4/17/2017 22:50
alpha-BHC	U		12	59	µg/Kg-dry	5	4/17/2017 22:50
alpha-Chlordane	U		11	59	µg/Kg-dry	5	4/17/2017 22:50
beta-BHC	U		11	59	µg/Kg-dry	5	4/17/2017 22:50
Chlordane, Technical	U		59	150	µg/Kg-dry	5	4/17/2017 22:50
delta-BHC	U		31	59	µg/Kg-dry	5	4/17/2017 22:50
Dieldrin	U		11	59	µg/Kg-dry	5	4/17/2017 22:50
Endosulfan I	U		9.5	59	µg/Kg-dry	5	4/17/2017 22:50
Endosulfan II	U		11	59	µg/Kg-dry	5	4/17/2017 22:50
Endosulfan sulfate	U		12	59	µg/Kg-dry	5	4/17/2017 22:50
Endrin	U		12	59	µg/Kg-dry	5	4/17/2017 22:50
Endrin aldehyde	U		10	59	µg/Kg-dry	5	4/17/2017 22:50
Endrin ketone	U		11	59	µg/Kg-dry	5	4/17/2017 22:50
gamma-BHC (Lindane)	U		14	59	µg/Kg-dry	5	4/17/2017 22:50
gamma-Chlordane	U		13	59	µg/Kg-dry	5	4/17/2017 22:50
Heptachlor	U		17	59	µg/Kg-dry	5	4/17/2017 22:50
Heptachlor epoxide	U		11	59	µg/Kg-dry	5	4/17/2017 22:50
Methoxychlor	U		10	59	µg/Kg-dry	5	4/17/2017 22:50
Toxaphene	U		64	360	µg/Kg-dry	5	4/17/2017 22:50
Surr: Decachlorobiphenyl	*75.8*			*50-150*	*%REC*	5	4/17/2017 22:50
Surr: Tetrachloro-m-xylene	*83.0*			*50-150*	*%REC*	5	4/17/2017 22:50
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 13 (4-6) - 041017
Collection Date: 4/10/2017 03:35 PM

Work Order: 1704626
Lab ID: 1704626-18
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.091**		**0.0031**	**0.019**	**mg/Kg-dry**	1	4/19/2017 13:56
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**3.7**		**0.25**	**1.7**	**mg/Kg-dry**	4	4/19/2017 00:58
Barium	**93**		**0.24**	**1.7**	**mg/Kg-dry**	4	4/19/2017 00:58
Cadmium	U		0.014	0.68	mg/Kg-dry	4	4/19/2017 00:58
Chromium	**21**		**0.082**	**1.7**	**mg/Kg-dry**	4	4/19/2017 00:58
Lead	**20**		**0.027**	**1.7**	**mg/Kg-dry**	4	4/19/2017 00:58
Selenium	**1.2**	J	**0.57**	**1.9**	**mg/Kg-dry**	4	4/21/2017 10:39
Silver	**0.058**	J	**0.014**	**1.7**	**mg/Kg-dry**	4	4/19/2017 00:58
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.8	49	µg/Kg-dry	1	4/19/2017 18:39
2-Methylnaphthalene	**530**		**7.9**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Acenaphthene	**58**		**3.4**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Acenaphthylene	**81**		**4.3**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Anthracene	**240**		**1.8**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Benzo(a)anthracene	**800**		**3.0**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Benzo(a)pyrene	**320**		**1.2**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Benzo(b)fluoranthene	**950**		**1.9**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Benzo(g,h,i)perylene	**260**		**3.3**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Benzo(k)fluoranthene	**170**		**2.5**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Chrysene	**620**		**1.9**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Dibenzo(a,h)anthracene	**190**		**1.6**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Fluoranthene	**1,500**		**1.4**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Fluorene	**55**		**1.6**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Indeno(1,2,3-cd)pyrene	**320**		**1.5**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Naphthalene	**550**		**9.1**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Phenanthrene	**900**		**1.7**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Pyrene	**1,100**		**1.8**	**49**	**µg/Kg-dry**	1	4/19/2017 18:39
Surr: 2-Fluorobiphenyl	*73.6*			*20-140*	*%REC*	1	4/19/2017 18:39
Surr: 4-Terphenyl-d14	*72.1*			*22-172*	*%REC*	1	4/19/2017 18:39
Surr: Nitrobenzene-d5	*67.6*			*8-140*	*%REC*	1	4/19/2017 18:39
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 07:02
1,1,2,2-Tetrachloroethane	U		10	41	µg/Kg-dry	1	4/14/2017 07:02
1,1,2-Trichloroethane	U		12	41	µg/Kg-dry	1	4/14/2017 07:02
1,1-Dichloroethane	U		11	41	µg/Kg-dry	1	4/14/2017 07:02
1,1-Dichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 07:02
1,2-Dichloroethane	U		11	41	µg/Kg-dry	1	4/14/2017 07:02

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 13 (4-6) - 041017
Collection Date: 4/10/2017 03:35 PM

Work Order: 1704626
Lab ID: 1704626-18
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	41	µg/Kg-dry	1	4/14/2017 07:02
2-Butanone	**140**	J	**56**	**280**	**µg/Kg-dry**	1	4/14/2017 07:02
2-Hexanone	U		27	41	µg/Kg-dry	1	4/14/2017 07:02
4-Methyl-2-pentanone	U		30	41	µg/Kg-dry	1	4/14/2017 07:02
Acetone	U		75	140	µg/Kg-dry	1	4/14/2017 07:02
Benzene	**74**		**9.4**	**41**	**µg/Kg-dry**	1	4/14/2017 07:02
Bromodichloromethane	U		11	41	µg/Kg-dry	1	4/14/2017 07:02
Bromoform	U		15	41	µg/Kg-dry	1	4/14/2017 07:02
Bromomethane	U		18	100	µg/Kg-dry	1	4/14/2017 07:02
Carbon disulfide	U		14	41	µg/Kg-dry	1	4/14/2017 07:02
Carbon tetrachloride	U		7.3	41	µg/Kg-dry	1	4/14/2017 07:02
Chlorobenzene	U		12	41	µg/Kg-dry	1	4/14/2017 07:02
Chloroethane	U		26	140	µg/Kg-dry	1	4/14/2017 07:02
Chloroform	U		14	41	µg/Kg-dry	1	4/14/2017 07:02
cis-1,2-Dichloroethene	U		12	41	µg/Kg-dry	1	4/14/2017 07:02
cis-1,3-Dichloropropene	U		16	41	µg/Kg-dry	1	4/14/2017 07:02
Dibromochloromethane	U		9.4	41	µg/Kg-dry	1	4/14/2017 07:02
Ethylbenzene	**1,600**		**9.7**	**41**	**µg/Kg-dry**	1	4/14/2017 07:02
Methyl tert-butyl ether	U		13	41	µg/Kg-dry	1	4/14/2017 07:02
Methylene chloride	**37**	J	**19**	**41**	**µg/Kg-dry**	1	4/14/2017 07:02
Styrene	U		29	41	µg/Kg-dry	1	4/14/2017 07:02
Tetrachloroethene	U		20	41	µg/Kg-dry	1	4/14/2017 07:02
Toluene	**41**		**14**	**41**	**µg/Kg-dry**	1	4/14/2017 07:02
trans-1,2-Dichloroethene	U		12	41	µg/Kg-dry	1	4/14/2017 07:02
trans-1,3-Dichloropropene	U		7.4	41	µg/Kg-dry	1	4/14/2017 07:02
Trichloroethene	U		11	41	µg/Kg-dry	1	4/14/2017 07:02
Vinyl chloride	U		13	41	µg/Kg-dry	1	4/14/2017 07:02
Xylenes, Total	**2,600**		**32**	**120**	**µg/Kg-dry**	1	4/14/2017 07:02
Surr: 1,2-Dichloroethane-d4	*98.6*			*70-130*	*%REC*	1	4/14/2017 07:02
Surr: 4-Bromofluorobenzene	*106*			*70-130*	*%REC*	1	4/14/2017 07:02
Surr: Dibromofluoromethane	*87.2*			*70-130*	*%REC*	1	4/14/2017 07:02
Surr: Toluene-d8	*104*			*70-130*	*%REC*	1	4/14/2017 07:02
MOISTURE		Method:	**SW3550C**				Analyst: **EDL**
Moisture	**16**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 11 (6-8) - 041017
Collection Date: 4/10/2017 04:25 PM

Work Order: 1704626
Lab ID: 1704626-19
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		9.8	76	µg/Kg-dry	1	4/20/2017 09:34
Aroclor 1221	U		9.8	76	µg/Kg-dry	1	4/20/2017 09:34
Aroclor 1232	U		9.8	76	µg/Kg-dry	1	4/20/2017 09:34
Aroclor 1242	U		9.8	76	µg/Kg-dry	1	4/20/2017 09:34
Aroclor 1248	U		9.8	76	µg/Kg-dry	1	4/20/2017 09:34
Aroclor 1254	U		6.9	76	µg/Kg-dry	1	4/20/2017 09:34
Aroclor 1260	U		6.9	76	µg/Kg-dry	1	4/20/2017 09:34
Aroclor 1262	U		6.9	76	µg/Kg-dry	1	4/20/2017 09:34
Aroclor 1268	U		6.9	76	µg/Kg-dry	1	4/20/2017 09:34
Surr: Decachlorobiphenyl	*51.9*			*40-140*	*%REC*	1	4/20/2017 09:34
Surr: Tetrachloro-m-xylene	*50.8*			*45-124*	*%REC*	1	4/20/2017 09:34
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.5	11	µg/Kg-dry	1	4/18/2017 18:15
4,4´-DDE	U		2.2	11	µg/Kg-dry	1	4/18/2017 18:15
4,4´-DDT	**3.9**	J	**1.8**	**11**	**µg/Kg-dry**	1	4/18/2017 18:15
Aldrin	U		2.3	11	µg/Kg-dry	1	4/18/2017 18:15
alpha-BHC	U		2.2	11	µg/Kg-dry	1	4/18/2017 18:15
alpha-Chlordane	U		2.2	11	µg/Kg-dry	1	4/18/2017 18:15
beta-BHC	U		2.1	11	µg/Kg-dry	1	4/18/2017 18:15
Chlordane, Technical	U		11	28	µg/Kg-dry	1	4/18/2017 18:15
delta-BHC	U		5.9	11	µg/Kg-dry	1	4/18/2017 18:15
Dieldrin	U		2.2	11	µg/Kg-dry	1	4/18/2017 18:15
Endosulfan I	U		1.8	11	µg/Kg-dry	1	4/18/2017 18:15
Endosulfan II	U		2.2	11	µg/Kg-dry	1	4/18/2017 18:15
Endosulfan sulfate	U		2.3	11	µg/Kg-dry	1	4/18/2017 18:15
Endrin	U		2.3	11	µg/Kg-dry	1	4/18/2017 18:15
Endrin aldehyde	U		2.0	11	µg/Kg-dry	1	4/18/2017 18:15
Endrin ketone	U		2.1	11	µg/Kg-dry	1	4/18/2017 18:15
gamma-BHC (Lindane)	U		2.7	11	µg/Kg-dry	1	4/18/2017 18:15
gamma-Chlordane	U		2.6	11	µg/Kg-dry	1	4/18/2017 18:15
Heptachlor	U		3.2	11	µg/Kg-dry	1	4/18/2017 18:15
Heptachlor epoxide	U		2.1	11	µg/Kg-dry	1	4/18/2017 18:15
Methoxychlor	U		1.9	11	µg/Kg-dry	1	4/18/2017 18:15
Toxaphene	U		12	68	µg/Kg-dry	1	4/18/2017 18:15
Surr: Decachlorobiphenyl	*66.2*			*50-150*	*%REC*	1	4/18/2017 18:15
Surr: Tetrachloro-m-xylene	*82.7*			*50-150*	*%REC*	1	4/18/2017 18:15
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 11 (6-8) - 041017
Collection Date: 4/10/2017 04:25 PM

Work Order: 1704626
Lab ID: 1704626-19
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.025**		**0.0031**	**0.019**	**mg/Kg-dry**	1	4/19/2017 13:58
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**5.4**		**0.26**	**1.8**	**mg/Kg-dry**	4	4/19/2017 01:04
Barium	**110**		**0.25**	**1.8**	**mg/Kg-dry**	4	4/19/2017 01:04
Cadmium	U		0.014	0.71	mg/Kg-dry	4	4/19/2017 01:04
Chromium	**19**		**0.085**	**1.8**	**mg/Kg-dry**	4	4/19/2017 01:04
Lead	**21**		**0.028**	**1.8**	**mg/Kg-dry**	4	4/19/2017 01:04
Selenium	**0.79**	J	**0.55**	**1.8**	**mg/Kg-dry**	4	4/21/2017 10:45
Silver	**0.049**	J	**0.014**	**1.8**	**mg/Kg-dry**	4	4/19/2017 01:04
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.7	47	µg/Kg-dry	1	4/19/2017 19:05
2-Methylnaphthalene	**790**		**7.7**	**47**	**µg/Kg-dry**	1	4/19/2017 19:05
Acenaphthene	U		3.4	47	µg/Kg-dry	1	4/19/2017 19:05
Acenaphthylene	U		4.2	47	µg/Kg-dry	1	4/19/2017 19:05
Anthracene	U		1.7	47	µg/Kg-dry	1	4/19/2017 19:05
Benzo(a)anthracene	**150**		**2.9**	**47**	**µg/Kg-dry**	1	4/19/2017 19:05
Benzo(a)pyrene	U		1.2	47	µg/Kg-dry	1	4/19/2017 19:05
Benzo(b)fluoranthene	**170**		**1.8**	**47**	**µg/Kg-dry**	1	4/19/2017 19:05
Benzo(g,h,i)perylene	U		3.2	47	µg/Kg-dry	1	4/19/2017 19:05
Benzo(k)fluoranthene	U		2.5	47	µg/Kg-dry	1	4/19/2017 19:05
Chrysene	**84**		**1.8**	**47**	**µg/Kg-dry**	1	4/19/2017 19:05
Dibenzo(a,h)anthracene	U		1.5	47	µg/Kg-dry	1	4/19/2017 19:05
Fluoranthene	**230**		**1.4**	**47**	**µg/Kg-dry**	1	4/19/2017 19:05
Fluorene	U		1.5	47	µg/Kg-dry	1	4/19/2017 19:05
Indeno(1,2,3-cd)pyrene	U		1.5	47	µg/Kg-dry	1	4/19/2017 19:05
Naphthalene	**750**		**8.9**	**47**	**µg/Kg-dry**	1	4/19/2017 19:05
Phenanthrene	U		1.6	47	µg/Kg-dry	1	4/19/2017 19:05
Pyrene	**84**		**1.7**	**47**	**µg/Kg-dry**	1	4/19/2017 19:05
Surr: 2-Fluorobiphenyl	*75.0*			*20-140*	*%REC*	1	4/19/2017 19:05
Surr: 4-Terphenyl-d14	*69.0*			*22-172*	*%REC*	1	4/19/2017 19:05
Surr: Nitrobenzene-d5	*65.8*			*8-140*	*%REC*	1	4/19/2017 19:05
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		11	40	µg/Kg-dry	1	4/14/2017 07:28
1,1,2,2-Tetrachloroethane	U		9.6	40	µg/Kg-dry	1	4/14/2017 07:28
1,1,2-Trichloroethane	U		12	40	µg/Kg-dry	1	4/14/2017 07:28
1,1-Dichloroethane	U		10	40	µg/Kg-dry	1	4/14/2017 07:28
1,1-Dichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 07:28
1,2-Dichloroethane	U		11	40	µg/Kg-dry	1	4/14/2017 07:28

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 11 (6-8) - 041017
Collection Date: 4/10/2017 04:25 PM

Work Order: 1704626
Lab ID: 1704626-19
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	40	µg/Kg-dry	1	4/14/2017 07:28
2-Butanone	**200**	J	**54**	**270**	**µg/Kg-dry**	1	4/14/2017 07:28
2-Hexanone	U		26	40	µg/Kg-dry	1	4/14/2017 07:28
4-Methyl-2-pentanone	U		29	40	µg/Kg-dry	1	4/14/2017 07:28
Acetone	U		72	130	µg/Kg-dry	1	4/14/2017 07:28
Benzene	**2,000**		**9.0**	**40**	**µg/Kg-dry**	1	4/14/2017 07:28
Bromodichloromethane	U		11	40	µg/Kg-dry	1	4/14/2017 07:28
Bromoform	U		14	40	µg/Kg-dry	1	4/14/2017 07:28
Bromomethane	U		17	99	µg/Kg-dry	1	4/14/2017 07:28
Carbon disulfide	U		13	40	µg/Kg-dry	1	4/14/2017 07:28
Carbon tetrachloride	U		7.1	40	µg/Kg-dry	1	4/14/2017 07:28
Chlorobenzene	U		12	40	µg/Kg-dry	1	4/14/2017 07:28
Chloroethane	U		25	130	µg/Kg-dry	1	4/14/2017 07:28
Chloroform	U		13	40	µg/Kg-dry	1	4/14/2017 07:28
cis-1,2-Dichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 07:28
cis-1,3-Dichloropropene	U		15	40	µg/Kg-dry	1	4/14/2017 07:28
Dibromochloromethane	U		9.1	40	µg/Kg-dry	1	4/14/2017 07:28
Ethylbenzene	**9,400**		**93**	**400**	**µg/Kg-dry**	10	4/15/2017 11:40
Methyl tert-butyl ether	U		13	40	µg/Kg-dry	1	4/14/2017 07:28
Methylene chloride	**43**		**18**	**40**	**µg/Kg-dry**	1	4/14/2017 07:28
Styrene	U		28	40	µg/Kg-dry	1	4/14/2017 07:28
Tetrachloroethene	U		20	40	µg/Kg-dry	1	4/14/2017 07:28
Toluene	**1,400**		**13**	**40**	**µg/Kg-dry**	1	4/14/2017 07:28
trans-1,2-Dichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 07:28
trans-1,3-Dichloropropene	U		7.1	40	µg/Kg-dry	1	4/14/2017 07:28
Trichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 07:28
Vinyl chloride	U		13	40	µg/Kg-dry	1	4/14/2017 07:28
Xylenes, Total	**24,000**		**310**	**1,200**	**µg/Kg-dry**	10	4/15/2017 11:40
Surr: 1,2-Dichloroethane-d4	*97.3*			*70-130*	*%REC*	1	4/14/2017 07:28
Surr: 1,2-Dichloroethane-d4	*99.4*			*70-130*	*%REC*	10	4/15/2017 11:40
Surr: 4-Bromofluorobenzene	*108*			*70-130*	*%REC*	1	4/14/2017 07:28
Surr: 4-Bromofluorobenzene	*100*			*70-130*	*%REC*	10	4/15/2017 11:40
Surr: Dibromofluoromethane	*83.6*			*70-130*	*%REC*	1	4/14/2017 07:28
Surr: Dibromofluoromethane	*91.7*			*70-130*	*%REC*	10	4/15/2017 11:40
Surr: Toluene-d8	*108*			*70-130*	*%REC*	1	4/14/2017 07:28
Surr: Toluene-d8	*97.7*			*70-130*	*%REC*	10	4/15/2017 11:40
MOISTURE			Method: **SW3550C**				Analyst: **EDL**
Moisture	**14**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 12 (6-8) - 041017
Collection Date: 4/10/2017 04:40 PM

Work Order: 1704626
Lab ID: 1704626-20
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		10	77	µg/Kg-dry	1	4/20/2017 10:06
Aroclor 1221	U		10	77	µg/Kg-dry	1	4/20/2017 10:06
Aroclor 1232	U		10	77	µg/Kg-dry	1	4/20/2017 10:06
Aroclor 1242	U		10	77	µg/Kg-dry	1	4/20/2017 10:06
Aroclor 1248	U		10	77	µg/Kg-dry	1	4/20/2017 10:06
Aroclor 1254	U		7.0	77	µg/Kg-dry	1	4/20/2017 10:06
Aroclor 1260	U		7.0	77	µg/Kg-dry	1	4/20/2017 10:06
Aroclor 1262	U		7.0	77	µg/Kg-dry	1	4/20/2017 10:06
Aroclor 1268	U		7.0	77	µg/Kg-dry	1	4/20/2017 10:06
Surr: Decachlorobiphenyl	*74.9*			*40-140*	*%REC*	1	4/20/2017 10:06
Surr: Tetrachloro-m-xylene	*73.8*			*45-124*	*%REC*	1	4/20/2017 10:06
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.5	12	µg/Kg-dry	1	4/18/2017 18:29
4,4´-DDE	U		2.2	12	µg/Kg-dry	1	4/18/2017 18:29
4,4´-DDT	U		1.8	12	µg/Kg-dry	1	4/18/2017 18:29
Aldrin	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:29
alpha-BHC	U		2.2	12	µg/Kg-dry	1	4/18/2017 18:29
alpha-Chlordane	U		2.2	12	µg/Kg-dry	1	4/18/2017 18:29
beta-BHC	U		2.1	12	µg/Kg-dry	1	4/18/2017 18:29
Chlordane, Technical	U		11	29	µg/Kg-dry	1	4/18/2017 18:29
delta-BHC	U		6.0	12	µg/Kg-dry	1	4/18/2017 18:29
Dieldrin	U		2.2	12	µg/Kg-dry	1	4/18/2017 18:29
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/18/2017 18:29
Endosulfan II	U		2.2	12	µg/Kg-dry	1	4/18/2017 18:29
Endosulfan sulfate	U		2.4	12	µg/Kg-dry	1	4/18/2017 18:29
Endrin	U		2.4	12	µg/Kg-dry	1	4/18/2017 18:29
Endrin aldehyde	U		2.0	12	µg/Kg-dry	1	4/18/2017 18:29
Endrin ketone	U		2.2	12	µg/Kg-dry	1	4/18/2017 18:29
gamma-BHC (Lindane)	U		2.8	12	µg/Kg-dry	1	4/18/2017 18:29
gamma-Chlordane	U		2.6	12	µg/Kg-dry	1	4/18/2017 18:29
Heptachlor	U		3.2	12	µg/Kg-dry	1	4/18/2017 18:29
Heptachlor epoxide	U		2.1	12	µg/Kg-dry	1	4/18/2017 18:29
Methoxychlor	U		2.0	12	µg/Kg-dry	1	4/18/2017 18:29
Toxaphene	U		12	69	µg/Kg-dry	1	4/18/2017 18:29
Surr: Decachlorobiphenyl	*62.3*			*50-150*	*%REC*	1	4/18/2017 18:29
Surr: Tetrachloro-m-xylene	*78.4*			*50-150*	*%REC*	1	4/18/2017 18:29
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 12 (6-8) - 041017
Collection Date: 4/10/2017 04:40 PM

Work Order: 1704626
Lab ID: 1704626-20
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.012**	J	**0.0027**	**0.016**	**mg/Kg-dry**	1	4/19/2017 14:01
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**4.6**		**0.28**	**1.9**	**mg/Kg-dry**	4	4/19/2017 01:10
Barium	**67**		**0.27**	**1.9**	**mg/Kg-dry**	4	4/19/2017 01:10
Cadmium	U		0.015	0.77	mg/Kg-dry	4	4/19/2017 01:10
Chromium	**16**		**0.092**	**1.9**	**mg/Kg-dry**	4	4/19/2017 01:10
Lead	**23**		**0.031**	**1.9**	**mg/Kg-dry**	4	4/19/2017 01:10
Selenium	**1.0**	J	**0.57**	**1.9**	**mg/Kg-dry**	4	4/21/2017 10:51
Silver	**0.056**	J	**0.015**	**1.9**	**mg/Kg-dry**	4	4/19/2017 01:10
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.7	47	µg/Kg-dry	1	4/19/2017 19:31
2-Methylnaphthalene	**1,500**		**7.7**	**47**	**µg/Kg-dry**	1	4/19/2017 19:31
Acenaphthene	U		3.4	47	µg/Kg-dry	1	4/19/2017 19:31
Acenaphthylene	U		4.2	47	µg/Kg-dry	1	4/19/2017 19:31
Anthracene	U		1.7	47	µg/Kg-dry	1	4/19/2017 19:31
Benzo(a)anthracene	U		2.9	47	µg/Kg-dry	1	4/19/2017 19:31
Benzo(a)pyrene	U		1.2	47	µg/Kg-dry	1	4/19/2017 19:31
Benzo(b)fluoranthene	U		1.8	47	µg/Kg-dry	1	4/19/2017 19:31
Benzo(g,h,i)perylene	U		3.2	47	µg/Kg-dry	1	4/19/2017 19:31
Benzo(k)fluoranthene	U		2.5	47	µg/Kg-dry	1	4/19/2017 19:31
Chrysene	U		1.8	47	µg/Kg-dry	1	4/19/2017 19:31
Dibenzo(a,h)anthracene	U		1.5	47	µg/Kg-dry	1	4/19/2017 19:31
Fluoranthene	**85**		**1.4**	**47**	**µg/Kg-dry**	1	4/19/2017 19:31
Fluorene	U		1.5	47	µg/Kg-dry	1	4/19/2017 19:31
Indeno(1,2,3-cd)pyrene	U		1.5	47	µg/Kg-dry	1	4/19/2017 19:31
Naphthalene	**1,700**		**8.9**	**47**	**µg/Kg-dry**	1	4/19/2017 19:31
Phenanthrene	**77**		**1.6**	**47**	**µg/Kg-dry**	1	4/19/2017 19:31
Pyrene	U		1.7	47	µg/Kg-dry	1	4/19/2017 19:31
Surr: 2-Fluorobiphenyl	*70.3*			*20-140*	*%REC*	1	4/19/2017 19:31
Surr: 4-Terphenyl-d14	*77.8*			*22-172*	*%REC*	1	4/19/2017 19:31
Surr: Nitrobenzene-d5	*63.9*			*8-140*	*%REC*	1	4/19/2017 19:31
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/13/17		Analyst: **LSY**
1,1,1-Trichloroethane	U		11	40	µg/Kg-dry	1	4/14/2017 07:53
1,1,2,2-Tetrachloroethane	U		9.6	40	µg/Kg-dry	1	4/14/2017 07:53
1,1,2-Trichloroethane	U		12	40	µg/Kg-dry	1	4/14/2017 07:53
1,1-Dichloroethane	U		10	40	µg/Kg-dry	1	4/14/2017 07:53
1,1-Dichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 07:53
1,2-Dichloroethane	U		11	40	µg/Kg-dry	1	4/14/2017 07:53

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 12 (6-8) - 041017
Collection Date: 4/10/2017 04:40 PM

Work Order: 1704626
Lab ID: 1704626-20
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	40	µg/Kg-dry	1	4/14/2017 07:53
2-Butanone	**170**	J	**54**	**270**	**µg/Kg-dry**	1	4/14/2017 07:53
2-Hexanone	U		26	40	µg/Kg-dry	1	4/14/2017 07:53
4-Methyl-2-pentanone	U		29	40	µg/Kg-dry	1	4/14/2017 07:53
Acetone	U		72	130	µg/Kg-dry	1	4/14/2017 07:53
Benzene	**260**		**9.0**	**40**	**µg/Kg-dry**	1	4/14/2017 07:53
Bromodichloromethane	U		11	40	µg/Kg-dry	1	4/14/2017 07:53
Bromoform	U		14	40	µg/Kg-dry	1	4/14/2017 07:53
Bromomethane	U		17	99	µg/Kg-dry	1	4/14/2017 07:53
Carbon disulfide	U		13	40	µg/Kg-dry	1	4/14/2017 07:53
Carbon tetrachloride	U		7.1	40	µg/Kg-dry	1	4/14/2017 07:53
Chlorobenzene	U		12	40	µg/Kg-dry	1	4/14/2017 07:53
Chloroethane	U		25	130	µg/Kg-dry	1	4/14/2017 07:53
Chloroform	U		13	40	µg/Kg-dry	1	4/14/2017 07:53
cis-1,2-Dichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 07:53
cis-1,3-Dichloropropene	U		15	40	µg/Kg-dry	1	4/14/2017 07:53
Dibromochloromethane	U		9.1	40	µg/Kg-dry	1	4/14/2017 07:53
Ethylbenzene	**3,800**		**9.3**	**40**	**µg/Kg-dry**	1	4/14/2017 07:53
Methyl tert-butyl ether	U		13	40	µg/Kg-dry	1	4/14/2017 07:53
Methylene chloride	**44**		**18**	**40**	**µg/Kg-dry**	1	4/14/2017 07:53
Styrene	U		28	40	µg/Kg-dry	1	4/14/2017 07:53
Tetrachloroethene	U		20	40	µg/Kg-dry	1	4/14/2017 07:53
Toluene	**36**	J	**13**	**40**	**µg/Kg-dry**	1	4/14/2017 07:53
trans-1,2-Dichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 07:53
trans-1,3-Dichloropropene	U		7.1	40	µg/Kg-dry	1	4/14/2017 07:53
Trichloroethene	U		11	40	µg/Kg-dry	1	4/14/2017 07:53
Vinyl chloride	U		13	40	µg/Kg-dry	1	4/14/2017 07:53
Xylenes, Total	**1,900**		**31**	**120**	**µg/Kg-dry**	1	4/14/2017 07:53
Surr: 1,2-Dichloroethane-d4	*97.8*			*70-130*	*%REC*	1	4/14/2017 07:53
Surr: 4-Bromofluorobenzene	*113*			*70-130*	*%REC*	1	4/14/2017 07:53
Surr: Dibromofluoromethane	*84.8*			*70-130*	*%REC*	1	4/14/2017 07:53
Surr: Toluene-d8	*112*			*70-130*	*%REC*	1	4/14/2017 07:53

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**14**	**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 04 (6-8) - 041117
Collection Date: 4/11/2017 11:00 AM

Work Order: 1704626
Lab ID: 1704626-21
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		10	80	µg/Kg-dry	1	4/20/2017 10:20
Aroclor 1221	U		10	80	µg/Kg-dry	1	4/20/2017 10:20
Aroclor 1232	U		10	80	µg/Kg-dry	1	4/20/2017 10:20
Aroclor 1242	U		10	80	µg/Kg-dry	1	4/20/2017 10:20
Aroclor 1248	U		10	80	µg/Kg-dry	1	4/20/2017 10:20
Aroclor 1254	U		7.3	80	µg/Kg-dry	1	4/20/2017 10:20
Aroclor 1260	U		7.3	80	µg/Kg-dry	1	4/20/2017 10:20
Aroclor 1262	U		7.3	80	µg/Kg-dry	1	4/20/2017 10:20
Aroclor 1268	U		7.3	80	µg/Kg-dry	1	4/20/2017 10:20
Surr: Decachlorobiphenyl	*60.4*			*40-140*	*%REC*	1	4/20/2017 10:20
Surr: Tetrachloro-m-xylene	*60.8*			*45-124*	*%REC*	1	4/20/2017 10:20
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.6	12	µg/Kg-dry	1	4/18/2017 18:43
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:43
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/18/2017 18:43
Aldrin	U		2.4	12	µg/Kg-dry	1	4/18/2017 18:43
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:43
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:43
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/18/2017 18:43
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/18/2017 18:43
delta-BHC	U		6.3	12	µg/Kg-dry	1	4/18/2017 18:43
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:43
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/18/2017 18:43
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:43
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/18/2017 18:43
Endrin	U		2.5	12	µg/Kg-dry	1	4/18/2017 18:43
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/18/2017 18:43
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:43
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/18/2017 18:43
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/18/2017 18:43
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/18/2017 18:43
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/18/2017 18:43
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/18/2017 18:43
Toxaphene	U		13	72	µg/Kg-dry	1	4/18/2017 18:43
Surr: Decachlorobiphenyl	*65.8*			*50-150*	*%REC*	1	4/18/2017 18:43
Surr: Tetrachloro-m-xylene	*82.8*			*50-150*	*%REC*	1	4/18/2017 18:43
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 04 (6-8) - 041117
Collection Date: 4/11/2017 11:00 AM

Work Order: 1704626
Lab ID: 1704626-21
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.059**		**0.0034**	**0.021**	**mg/Kg-dry**	1	4/19/2017 14:03
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**6.3**		**0.26**	**1.8**	**mg/Kg-dry**	4	4/19/2017 01:16
Barium	**71**		**0.25**	**1.8**	**mg/Kg-dry**	4	4/19/2017 01:16
Cadmium	**0.13**	J	**0.014**	**0.71**	**mg/Kg-dry**	4	4/19/2017 01:16
Chromium	**21**		**0.085**	**1.8**	**mg/Kg-dry**	4	4/19/2017 01:16
Lead	**43**		**0.028**	**1.8**	**mg/Kg-dry**	4	4/19/2017 01:16
Selenium	**1.7**		**0.48**	**1.6**	**mg/Kg-dry**	4	4/21/2017 10:57
Silver	**0.046**	J	**0.014**	**1.8**	**mg/Kg-dry**	4	4/19/2017 01:16
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.9	49	µg/Kg-dry	1	4/19/2017 19:57
2-Methylnaphthalene	**140**		**8.0**	**49**	**µg/Kg-dry**	1	4/19/2017 19:57
Acenaphthene	U		3.5	49	µg/Kg-dry	1	4/19/2017 19:57
Acenaphthylene	U		4.3	49	µg/Kg-dry	1	4/19/2017 19:57
Anthracene	U		1.8	49	µg/Kg-dry	1	4/19/2017 19:57
Benzo(a)anthracene	U		3.0	49	µg/Kg-dry	1	4/19/2017 19:57
Benzo(a)pyrene	U		1.2	49	µg/Kg-dry	1	4/19/2017 19:57
Benzo(b)fluoranthene	U		1.9	49	µg/Kg-dry	1	4/19/2017 19:57
Benzo(g,h,i)perylene	U		3.3	49	µg/Kg-dry	1	4/19/2017 19:57
Benzo(k)fluoranthene	U		2.5	49	µg/Kg-dry	1	4/19/2017 19:57
Chrysene	U		1.9	49	µg/Kg-dry	1	4/19/2017 19:57
Dibenzo(a,h)anthracene	U		1.6	49	µg/Kg-dry	1	4/19/2017 19:57
Fluoranthene	**99**		**1.4**	**49**	**µg/Kg-dry**	1	4/19/2017 19:57
Fluorene	U		1.6	49	µg/Kg-dry	1	4/19/2017 19:57
Indeno(1,2,3-cd)pyrene	U		1.5	49	µg/Kg-dry	1	4/19/2017 19:57
Naphthalene	**120**		**9.2**	**49**	**µg/Kg-dry**	1	4/19/2017 19:57
Phenanthrene	**71**		**1.7**	**49**	**µg/Kg-dry**	1	4/19/2017 19:57
Pyrene	U		1.8	49	µg/Kg-dry	1	4/19/2017 19:57
Surr: 2-Fluorobiphenyl	*79.9*			*20-140*	*%REC*	1	4/19/2017 19:57
Surr: 4-Terphenyl-d14	*67.1*			*22-172*	*%REC*	1	4/19/2017 19:57
Surr: Nitrobenzene-d5	*64.0*			*8-140*	*%REC*	1	4/19/2017 19:57
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **EMR**
1,1,1-Trichloroethane	U		0.19	6.2	µg/Kg-dry	1	4/17/2017 13:46
1,1,2,2-Tetrachloroethane	U		0.14	6.2	µg/Kg-dry	1	4/17/2017 13:46
1,1,2-Trichloroethane	U		0.77	6.2	µg/Kg-dry	1	4/17/2017 13:46
1,1-Dichloroethane	U		0.16	6.2	µg/Kg-dry	1	4/17/2017 13:46
1,1-Dichloroethene	U		0.21	6.2	µg/Kg-dry	1	4/17/2017 13:46
1,2-Dichloroethane	U		0.19	6.2	µg/Kg-dry	1	4/17/2017 13:46

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 04 (6-8) - 041117
Collection Date: 4/11/2017 11:00 AM

Work Order: 1704626
Lab ID: 1704626-21
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		0.44	6.2	µg/Kg-dry	1	4/17/2017 13:46
2-Butanone	U		1.1	12	µg/Kg-dry	1	4/17/2017 13:46
2-Hexanone	U		0.83	6.2	µg/Kg-dry	1	4/17/2017 13:46
4-Methyl-2-pentanone	U		0.23	6.2	µg/Kg-dry	1	4/17/2017 13:46
Acetone	**57**		**1.9**	**12**	**µg/Kg-dry**	1	4/17/2017 13:46
Benzene	**4.4**	J	**0.12**	**6.2**	**µg/Kg-dry**	1	4/17/2017 13:46
Bromodichloromethane	U		0.13	6.2	µg/Kg-dry	1	4/17/2017 13:46
Bromoform	U		0.18	6.2	µg/Kg-dry	1	4/17/2017 13:46
Bromomethane	U		0.38	12	µg/Kg-dry	1	4/17/2017 13:46
Carbon disulfide	U		0.24	6.2	µg/Kg-dry	1	4/17/2017 13:46
Carbon tetrachloride	U		0.30	6.2	µg/Kg-dry	1	4/17/2017 13:46
Chlorobenzene	U		0.20	6.2	µg/Kg-dry	1	4/17/2017 13:46
Chloroethane	U		0.65	6.2	µg/Kg-dry	1	4/17/2017 13:46
Chloroform	U		0.25	6.2	µg/Kg-dry	1	4/17/2017 13:46
Chloromethane	U		0.32	12	µg/Kg-dry	1	4/17/2017 13:46
cis-1,2-Dichloroethene	U		0.15	6.2	µg/Kg-dry	1	4/17/2017 13:46
cis-1,3-Dichloropropene	U		0.14	6.2	µg/Kg-dry	1	4/17/2017 13:46
Dibromochloromethane	U		0.18	6.2	µg/Kg-dry	1	4/17/2017 13:46
Ethylbenzene	**1.5**	J	**0.14**	**6.2**	**µg/Kg-dry**	1	4/17/2017 13:46
Methyl tert-butyl ether	U		0.23	6.2	µg/Kg-dry	1	4/17/2017 13:46
Methylene chloride	U		0.17	6.2	µg/Kg-dry	1	4/17/2017 13:46
Styrene	U		0.37	6.2	µg/Kg-dry	1	4/17/2017 13:46
Tetrachloroethene	U		0.27	6.2	µg/Kg-dry	1	4/17/2017 13:46
Toluene	**5.4**	J	**0.16**	**6.2**	**µg/Kg-dry**	1	4/17/2017 13:46
trans-1,2-Dichloroethene	U		0.29	6.2	µg/Kg-dry	1	4/17/2017 13:46
trans-1,3-Dichloropropene	U		0.20	6.2	µg/Kg-dry	1	4/17/2017 13:46
Trichloroethene	U		0.24	6.2	µg/Kg-dry	1	4/17/2017 13:46
Vinyl chloride	U		0.21	6.2	µg/Kg-dry	1	4/17/2017 13:46
Xylenes, Total	**3.7**	J	**0.67**	**6.2**	**µg/Kg-dry**	1	4/17/2017 13:46
Surr: 1,2-Dichloroethane-d4	*121*	S		*70-120*	*%REC*	1	4/17/2017 13:46
Surr: 4-Bromofluorobenzene	*103*			*75-120*	*%REC*	1	4/17/2017 13:46
Surr: Dibromofluoromethane	*107*			*85-115*	*%REC*	1	4/17/2017 13:46
Surr: Toluene-d8	*99.7*			*85-120*	*%REC*	1	4/17/2017 13:46
MOISTURE		Method: **SW3550C**					Analyst: **EDL**
Moisture	**20**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 04 (12-14) - 041117
Collection Date: 4/11/2017 11:05 AM

Work Order: 1704626
Lab ID: 1704626-22
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PARTICLE-SIZE ANALYSIS OF SOILS		Method: **D422**					Analyst: **LR**
3 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
1.5 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
0.75 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
0.375 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
No. 4 Sieve (4.75 mm)	**100**		**0**		**% Passing**	1	4/20/2017
No. 10 Sieve (2.00 mm)	**100**		**0**		**% Passing**	1	4/20/2017
No. 16 Sieve (1.18 mm)	**100**		**0**		**% Passing**	1	4/20/2017
No. 30 Sieve (0.60 mm)	**100**		**0**		**% Passing**	1	4/20/2017
No. 50 Sieve (0.30 mm)	**99.9**		**0**		**% Passing**	1	4/20/2017
No. 60 Sieve (0.25 mm)	**99.5**		**0**		**% Passing**	1	4/20/2017
No. 100 Sieve (0.15 mm)	**89.3**		**0**		**% Passing**	1	4/20/2017
No. 200 Sieve (0.075 mm)	**58.4**		**0**		**% Passing**	1	4/20/2017
0.030 mm (Hydrometer)	**29.0**		**0**		**% Passing**	1	4/20/2017
0.005 mm (Hydrometer)	**10.0**		**0**		**% Passing**	1	4/20/2017
0.0015 mm (Hydrometer)	**9.00**		**0**		**% Passing**	1	4/20/2017
% Gravel	U		**0**		**% Passing**	1	4/20/2017
% Sand	**41.6**		**0**		**% Passing**	1	4/20/2017
% Silt, Clay, Colloids	**58.4**		**0**		**% Passing**	1	4/20/2017

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 09 (6-8) - 041117
Collection Date: 4/11/2017 11:20 AM

Work Order: 1704626
Lab ID: 1704626-23
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		11	82	µg/Kg-dry	1	4/20/2017 10:34
Aroclor 1221	U		11	82	µg/Kg-dry	1	4/20/2017 10:34
Aroclor 1232	U		11	82	µg/Kg-dry	1	4/20/2017 10:34
Aroclor 1242	U		11	82	µg/Kg-dry	1	4/20/2017 10:34
Aroclor 1248	U		11	82	µg/Kg-dry	1	4/20/2017 10:34
Aroclor 1254	U		7.4	82	µg/Kg-dry	1	4/20/2017 10:34
Aroclor 1260	U		7.4	82	µg/Kg-dry	1	4/20/2017 10:34
Aroclor 1262	U		7.4	82	µg/Kg-dry	1	4/20/2017 10:34
Aroclor 1268	U		7.4	82	µg/Kg-dry	1	4/20/2017 10:34
Surr: Decachlorobiphenyl	*77.2*			*40-140*	*%REC*	1	4/20/2017 10:34
Surr: Tetrachloro-m-xylene	*61.0*			*45-124*	*%REC*	1	4/20/2017 10:34
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.7	12	µg/Kg-dry	1	4/18/2017 18:57
4,4´-DDE	U		2.4	12	µg/Kg-dry	1	4/18/2017 18:57
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/18/2017 18:57
Aldrin	U		2.4	12	µg/Kg-dry	1	4/18/2017 18:57
alpha-BHC	U		2.4	12	µg/Kg-dry	1	4/18/2017 18:57
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:57
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/18/2017 18:57
Chlordane, Technical	U		12	31	µg/Kg-dry	1	4/18/2017 18:57
delta-BHC	U		6.3	12	µg/Kg-dry	1	4/18/2017 18:57
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:57
Endosulfan I	U		2.0	12	µg/Kg-dry	1	4/18/2017 18:57
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:57
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/18/2017 18:57
Endrin	U		2.5	12	µg/Kg-dry	1	4/18/2017 18:57
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/18/2017 18:57
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/18/2017 18:57
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/18/2017 18:57
gamma-Chlordane	U		2.8	12	µg/Kg-dry	1	4/18/2017 18:57
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/18/2017 18:57
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/18/2017 18:57
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/18/2017 18:57
Toxaphene	U		13	73	µg/Kg-dry	1	4/18/2017 18:57
Surr: Decachlorobiphenyl	*74.1*			*50-150*	*%REC*	1	4/18/2017 18:57
Surr: Tetrachloro-m-xylene	*76.2*			*50-150*	*%REC*	1	4/18/2017 18:57
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 09 (6-8) - 041117
Collection Date: 4/11/2017 11:20 AM

Work Order: 1704626
Lab ID: 1704626-23
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.020**	J	**0.0035**	**0.021**	**mg/Kg-dry**	1	4/19/2017 14:06
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**8.4**		**0.31**	**2.1**	**mg/Kg-dry**	4	4/19/2017 01:40
Barium	**52**		**0.29**	**2.1**	**mg/Kg-dry**	4	4/19/2017 01:40
Cadmium	U		0.017	0.83	mg/Kg-dry	4	4/19/2017 01:40
Chromium	**16**		**0.099**	**2.1**	**mg/Kg-dry**	4	4/19/2017 01:40
Lead	**14**		**0.033**	**2.1**	**mg/Kg-dry**	4	4/19/2017 01:40
Selenium	**0.85**	J	**0.52**	**1.7**	**mg/Kg-dry**	4	4/21/2017 11:21
Silver	**0.042**	J	**0.017**	**2.1**	**mg/Kg-dry**	4	4/19/2017 01:40
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		5.1	51	µg/Kg-dry	1	4/19/2017 20:24
2-Methylnaphthalene	**140**		**8.3**	**51**	**µg/Kg-dry**	1	4/19/2017 20:24
Acenaphthene	**200**		**3.6**	**51**	**µg/Kg-dry**	1	4/19/2017 20:24
Acenaphthylene	**150**		**4.5**	**51**	**µg/Kg-dry**	1	4/19/2017 20:24
Anthracene	U		1.8	51	µg/Kg-dry	1	4/19/2017 20:24
Benzo(a)anthracene	U		3.1	51	µg/Kg-dry	1	4/19/2017 20:24
Benzo(a)pyrene	U		1.3	51	µg/Kg-dry	1	4/19/2017 20:24
Benzo(b)fluoranthene	U		1.9	51	µg/Kg-dry	1	4/19/2017 20:24
Benzo(g,h,i)perylene	U		3.4	51	µg/Kg-dry	1	4/19/2017 20:24
Benzo(k)fluoranthene	U		2.6	51	µg/Kg-dry	1	4/19/2017 20:24
Chrysene	U		1.9	51	µg/Kg-dry	1	4/19/2017 20:24
Dibenzo(a,h)anthracene	U		1.7	51	µg/Kg-dry	1	4/19/2017 20:24
Fluoranthene	U		1.5	51	µg/Kg-dry	1	4/19/2017 20:24
Fluorene	**380**		**1.7**	**51**	**µg/Kg-dry**	1	4/19/2017 20:24
Indeno(1,2,3-cd)pyrene	U		1.6	51	µg/Kg-dry	1	4/19/2017 20:24
Naphthalene	**190**		**9.5**	**51**	**µg/Kg-dry**	1	4/19/2017 20:24
Phenanthrene	**190**		**1.8**	**51**	**µg/Kg-dry**	1	4/19/2017 20:24
Pyrene	U		1.8	51	µg/Kg-dry	1	4/19/2017 20:24
Surr: 2-Fluorobiphenyl	*71.8*			*20-140*	*%REC*	1	4/19/2017 20:24
Surr: 4-Terphenyl-d14	*87.9*			*22-172*	*%REC*	1	4/19/2017 20:24
Surr: Nitrobenzene-d5	*62.8*			*8-140*	*%REC*	1	4/19/2017 20:24
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/14/17		Analyst: **AK**
1,1,1-Trichloroethane	U		130	450	µg/Kg-dry	10	4/18/2017 08:45
1,1,2,2-Tetrachloroethane	U		110	450	µg/Kg-dry	10	4/18/2017 08:45
1,1,2-Trichloroethane	U		130	450	µg/Kg-dry	10	4/18/2017 08:45
1,1-Dichloroethane	U		110	450	µg/Kg-dry	10	4/18/2017 08:45
1,1-Dichloroethene	U		120	450	µg/Kg-dry	10	4/18/2017 08:45
1,2-Dichloroethane	U		120	450	µg/Kg-dry	10	4/18/2017 08:45

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 09 (6-8) - 041117
Collection Date: 4/11/2017 11:20 AM

Work Order: 1704626
Lab ID: 1704626-23
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		120	450	µg/Kg-dry	10	4/18/2017 08:45
2-Butanone	U		610	3,000	µg/Kg-dry	10	4/18/2017 08:45
2-Hexanone	U		300	450	µg/Kg-dry	10	4/18/2017 08:45
4-Methyl-2-pentanone	U		330	450	µg/Kg-dry	10	4/18/2017 08:45
Acetone	U		820	1,500	µg/Kg-dry	10	4/18/2017 08:45
Benzene	U		100	450	µg/Kg-dry	10	4/18/2017 08:45
Bromodichloromethane	U		120	450	µg/Kg-dry	10	4/18/2017 08:45
Bromoform	U		160	450	µg/Kg-dry	10	4/18/2017 08:45
Bromomethane	U		200	1,100	µg/Kg-dry	10	4/18/2017 08:45
Carbon disulfide	U		150	450	µg/Kg-dry	10	4/18/2017 08:45
Carbon tetrachloride	U		80	450	µg/Kg-dry	10	4/18/2017 08:45
Chlorobenzene	U		140	450	µg/Kg-dry	10	4/18/2017 08:45
Chloroethane	U		290	1,500	µg/Kg-dry	10	4/18/2017 08:45
Chloroform	U		150	450	µg/Kg-dry	10	4/18/2017 08:45
cis-1,2-Dichloroethene	U		130	450	µg/Kg-dry	10	4/18/2017 08:45
cis-1,3-Dichloropropene	U		170	450	µg/Kg-dry	10	4/18/2017 08:45
Dibromochloromethane	U		100	450	µg/Kg-dry	10	4/18/2017 08:45
Ethylbenzene	U		100	450	µg/Kg-dry	10	4/18/2017 08:45
Methyl tert-butyl ether	U		150	450	µg/Kg-dry	10	4/18/2017 08:45
Methylene chloride	U		210	450	µg/Kg-dry	10	4/18/2017 08:45
Styrene	U		320	450	µg/Kg-dry	10	4/18/2017 08:45
Tetrachloroethene	U		220	450	µg/Kg-dry	10	4/18/2017 08:45
Toluene	U		150	450	µg/Kg-dry	10	4/18/2017 08:45
trans-1,2-Dichloroethene	U		130	450	µg/Kg-dry	10	4/18/2017 08:45
trans-1,3-Dichloropropene	U		80	450	µg/Kg-dry	10	4/18/2017 08:45
Trichloroethene	U		120	450	µg/Kg-dry	10	4/18/2017 08:45
Vinyl chloride	U		140	450	µg/Kg-dry	10	4/18/2017 08:45
Xylenes, Total	U		350	1,400	µg/Kg-dry	10	4/18/2017 08:45
Surr: 1,2-Dichloroethane-d4	*109*			*70-130*	*%REC*	10	4/18/2017 08:45
Surr: 4-Bromofluorobenzene	*105*			*70-130*	*%REC*	10	4/18/2017 08:45
Surr: Dibromofluoromethane	*101*			*70-130*	*%REC*	10	4/18/2017 08:45
Surr: Toluene-d8	*96.0*			*70-130*	*%REC*	10	4/18/2017 08:45
MOISTURE		Method:	**SW3550C**				Analyst: **EDL**
Moisture	**20**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 24 (4-6) - 041117
Collection Date: 4/11/2017 11:45 AM

Work Order: 1704626
Lab ID: 1704626-24
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		9.8	76	µg/Kg-dry	1	4/20/2017 10:49
Aroclor 1221	U		9.8	76	µg/Kg-dry	1	4/20/2017 10:49
Aroclor 1232	U		9.8	76	µg/Kg-dry	1	4/20/2017 10:49
Aroclor 1242	U		9.8	76	µg/Kg-dry	1	4/20/2017 10:49
Aroclor 1248	U		9.8	76	µg/Kg-dry	1	4/20/2017 10:49
Aroclor 1254	U		6.9	76	µg/Kg-dry	1	4/20/2017 10:49
Aroclor 1260	U		6.9	76	µg/Kg-dry	1	4/20/2017 10:49
Aroclor 1262	U		6.9	76	µg/Kg-dry	1	4/20/2017 10:49
Aroclor 1268	U		6.9	76	µg/Kg-dry	1	4/20/2017 10:49
Surr: Decachlorobiphenyl	*35.7*	S		*40-140*	*%REC*	1	4/20/2017 10:49
Surr: Tetrachloro-m-xylene	*32.2*	S		*45-124*	*%REC*	1	4/20/2017 10:49
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.5	11	µg/Kg-dry	1	4/18/2017 22:46
4,4´-DDE	U		2.2	11	µg/Kg-dry	1	4/18/2017 22:46
4,4´-DDT	U		1.8	11	µg/Kg-dry	1	4/18/2017 22:46
Aldrin	U		2.3	11	µg/Kg-dry	1	4/18/2017 22:46
alpha-BHC	U		2.2	11	µg/Kg-dry	1	4/18/2017 22:46
alpha-Chlordane	U		2.2	11	µg/Kg-dry	1	4/18/2017 22:46
beta-BHC	U		2.1	11	µg/Kg-dry	1	4/18/2017 22:46
Chlordane, Technical	U		11	28	µg/Kg-dry	1	4/18/2017 22:46
delta-BHC	U		5.9	11	µg/Kg-dry	1	4/18/2017 22:46
Dieldrin	U		2.2	11	µg/Kg-dry	1	4/18/2017 22:46
Endosulfan I	U		1.8	11	µg/Kg-dry	1	4/18/2017 22:46
Endosulfan II	U		2.2	11	µg/Kg-dry	1	4/18/2017 22:46
Endosulfan sulfate	U		2.4	11	µg/Kg-dry	1	4/18/2017 22:46
Endrin	U		2.3	11	µg/Kg-dry	1	4/18/2017 22:46
Endrin aldehyde	U		2.0	11	µg/Kg-dry	1	4/18/2017 22:46
Endrin ketone	U		2.1	11	µg/Kg-dry	1	4/18/2017 22:46
gamma-BHC (Lindane)	U		2.7	11	µg/Kg-dry	1	4/18/2017 22:46
gamma-Chlordane	U		2.6	11	µg/Kg-dry	1	4/18/2017 22:46
Heptachlor	U		3.2	11	µg/Kg-dry	1	4/18/2017 22:46
Heptachlor epoxide	U		2.1	11	µg/Kg-dry	1	4/18/2017 22:46
Methoxychlor	U		2.0	11	µg/Kg-dry	1	4/18/2017 22:46
Toxaphene	U		12	68	µg/Kg-dry	1	4/18/2017 22:46
Surr: Decachlorobiphenyl	*73.1*			*50-150*	*%REC*	1	4/18/2017 22:46
Surr: Tetrachloro-m-xylene	*70.9*			*50-150*	*%REC*	1	4/18/2017 22:46
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 24 (4-6) - 041117
Collection Date: 4/11/2017 11:45 AM

Work Order: 1704626
Lab ID: 1704626-24
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.15**		**0.0029**	**0.017**	**mg/Kg-dry**	1	4/19/2017 14:09
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**13**		**0.25**	**1.7**	**mg/Kg-dry**	4	4/19/2017 02:17
Barium	**130**		**0.23**	**1.7**	**mg/Kg-dry**	4	4/19/2017 02:17
Cadmium	**0.96**		**0.013**	**0.67**	**mg/Kg-dry**	4	4/19/2017 15:42
Chromium	**74**		**0.080**	**1.7**	**mg/Kg-dry**	4	4/19/2017 15:42
Lead	**270**		**0.027**	**1.7**	**mg/Kg-dry**	4	4/19/2017 02:17
Selenium	**1.9**		**0.50**	**1.7**	**mg/Kg-dry**	4	4/19/2017 02:17
Silver	**0.37**	J	**0.013**	**1.7**	**mg/Kg-dry**	4	4/19/2017 02:17
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		4.9	49	µg/Kg-dry	1	4/19/2017 20:50
2-Methylnaphthalene	**430**		**8.0**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Acenaphthene	**460**		**3.5**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Acenaphthylene	**260**		**4.3**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Anthracene	U		1.8	49	µg/Kg-dry	1	4/19/2017 20:50
Benzo(a)anthracene	**380**		**3.0**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Benzo(a)pyrene	**110**		**1.2**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Benzo(b)fluoranthene	**640**		**1.9**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Benzo(g,h,i)perylene	U		3.3	49	µg/Kg-dry	1	4/19/2017 20:50
Benzo(k)fluoranthene	**87**		**2.6**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Chrysene	**450**		**1.9**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Dibenzo(a,h)anthracene	U		1.6	49	µg/Kg-dry	1	4/19/2017 20:50
Fluoranthene	**660**		**1.4**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Fluorene	**800**		**1.6**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Indeno(1,2,3-cd)pyrene	U		1.5	49	µg/Kg-dry	1	4/19/2017 20:50
Naphthalene	**330**		**9.3**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Phenanthrene	**530**		**1.7**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Pyrene	**500**		**1.8**	**49**	**µg/Kg-dry**	1	4/19/2017 20:50
Surr: 2-Fluorobiphenyl	*74.0*			*20-140*	*%REC*	1	4/19/2017 20:50
Surr: 4-Terphenyl-d14	*88.2*			*22-172*	*%REC*	1	4/19/2017 20:50
Surr: Nitrobenzene-d5	*74.2*			*8-140*	*%REC*	1	4/19/2017 20:50
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/14/17		Analyst: **AK**
1,1,1-Trichloroethane	U		120	410	µg/Kg-dry	10	4/15/2017 04:35
1,1,2,2-Tetrachloroethane	U		100	410	µg/Kg-dry	10	4/15/2017 04:35
1,1,2-Trichloroethane	U		120	410	µg/Kg-dry	10	4/15/2017 04:35
1,1-Dichloroethane	U		110	410	µg/Kg-dry	10	4/15/2017 04:35
1,1-Dichloroethene	U		110	410	µg/Kg-dry	10	4/15/2017 04:35
1,2-Dichloroethane	U		110	410	µg/Kg-dry	10	4/15/2017 04:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 24 (4-6) - 041117
Collection Date: 4/11/2017 11:45 AM

Work Order: 1704626
Lab ID: 1704626-24
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		110	410	µg/Kg-dry	10	4/15/2017 04:35
2-Butanone	U		560	2,800	µg/Kg-dry	10	4/15/2017 04:35
2-Hexanone	U		270	410	µg/Kg-dry	10	4/15/2017 04:35
4-Methyl-2-pentanone	U		300	410	µg/Kg-dry	10	4/15/2017 04:35
Acetone	U		750	1,400	µg/Kg-dry	10	4/15/2017 04:35
Benzene	U		94	410	µg/Kg-dry	10	4/15/2017 04:35
Bromodichloromethane	U		110	410	µg/Kg-dry	10	4/15/2017 04:35
Bromoform	U		150	410	µg/Kg-dry	10	4/15/2017 04:35
Bromomethane	U		180	1,000	µg/Kg-dry	10	4/15/2017 04:35
Carbon disulfide	U		140	410	µg/Kg-dry	10	4/15/2017 04:35
Carbon tetrachloride	U		73	410	µg/Kg-dry	10	4/15/2017 04:35
Chlorobenzene	U		120	410	µg/Kg-dry	10	4/15/2017 04:35
Chloroethane	U		260	1,400	µg/Kg-dry	10	4/15/2017 04:35
Chloroform	U		140	410	µg/Kg-dry	10	4/15/2017 04:35
cis-1,2-Dichloroethene	U		120	410	µg/Kg-dry	10	4/15/2017 04:35
cis-1,3-Dichloropropene	U		160	410	µg/Kg-dry	10	4/15/2017 04:35
Dibromochloromethane	U		94	410	µg/Kg-dry	10	4/15/2017 04:35
Ethylbenzene	U		97	410	µg/Kg-dry	10	4/15/2017 04:35
Methyl tert-butyl ether	U		130	410	µg/Kg-dry	10	4/15/2017 04:35
Methylene chloride	U		190	410	µg/Kg-dry	10	4/15/2017 04:35
Styrene	U		290	410	µg/Kg-dry	10	4/15/2017 04:35
Tetrachloroethene	U		200	410	µg/Kg-dry	10	4/15/2017 04:35
Toluene	U		140	410	µg/Kg-dry	10	4/15/2017 04:35
trans-1,2-Dichloroethene	U		120	410	µg/Kg-dry	10	4/15/2017 04:35
trans-1,3-Dichloropropene	U		74	410	µg/Kg-dry	10	4/15/2017 04:35
Trichloroethene	U		110	410	µg/Kg-dry	10	4/15/2017 04:35
Vinyl chloride	U		130	410	µg/Kg-dry	10	4/15/2017 04:35
Xylenes, Total	U		320	1,200	µg/Kg-dry	10	4/15/2017 04:35
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	10	4/15/2017 04:35
Surr: 4-Bromofluorobenzene	*97.0*			*70-130*	*%REC*	10	4/15/2017 04:35
Surr: Dibromofluoromethane	*97.8*			*70-130*	*%REC*	10	4/15/2017 04:35
Surr: Toluene-d8	*96.4*			*70-130*	*%REC*	10	4/15/2017 04:35
MOISTURE		Method:	**SW3550C**				Analyst: **EDL**
Moisture	**16**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 24 (4-6) - DUP - 041117
Collection Date: 4/11/2017 11:50 AM

Work Order: 1704626
Lab ID: 1704626-25
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		10	78	µg/Kg-dry	1	4/20/2017 11:03
Aroclor 1221	U		10	78	µg/Kg-dry	1	4/20/2017 11:03
Aroclor 1232	U		10	78	µg/Kg-dry	1	4/20/2017 11:03
Aroclor 1242	U		10	78	µg/Kg-dry	1	4/20/2017 11:03
Aroclor 1248	U		10	78	µg/Kg-dry	1	4/20/2017 11:03
Aroclor 1254	U		7.0	78	µg/Kg-dry	1	4/20/2017 11:03
Aroclor 1260	U		7.0	78	µg/Kg-dry	1	4/20/2017 11:03
Aroclor 1262	U		7.0	78	µg/Kg-dry	1	4/20/2017 11:03
Aroclor 1268	U		7.0	78	µg/Kg-dry	1	4/20/2017 11:03
Surr: Decachlorobiphenyl	*26.6*	S		*40-140*	*%REC*	1	4/20/2017 11:03
Surr: Tetrachloro-m-xylene	*24.1*	S		*45-124*	*%REC*	1	4/20/2017 11:03
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.5	12	µg/Kg-dry	1	4/18/2017 19:54
4,4´-DDE	U		2.2	12	µg/Kg-dry	1	4/18/2017 19:54
4,4´-DDT	U		1.8	12	µg/Kg-dry	1	4/18/2017 19:54
Aldrin	U		2.3	12	µg/Kg-dry	1	4/18/2017 19:54
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/18/2017 19:54
alpha-Chlordane	U		2.2	12	µg/Kg-dry	1	4/18/2017 19:54
beta-BHC	U		2.1	12	µg/Kg-dry	1	4/18/2017 19:54
Chlordane, Technical	U		12	29	µg/Kg-dry	1	4/18/2017 19:54
delta-BHC	U		6.0	12	µg/Kg-dry	1	4/18/2017 19:54
Dieldrin	U		2.2	12	µg/Kg-dry	1	4/18/2017 19:54
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/18/2017 19:54
Endosulfan II	U		2.2	12	µg/Kg-dry	1	4/18/2017 19:54
Endosulfan sulfate	U		2.4	12	µg/Kg-dry	1	4/18/2017 19:54
Endrin	U		2.4	12	µg/Kg-dry	1	4/18/2017 19:54
Endrin aldehyde	U		2.0	12	µg/Kg-dry	1	4/18/2017 19:54
Endrin ketone	U		2.2	12	µg/Kg-dry	1	4/18/2017 19:54
gamma-BHC (Lindane)	U		2.8	12	µg/Kg-dry	1	4/18/2017 19:54
gamma-Chlordane	U		2.6	12	µg/Kg-dry	1	4/18/2017 19:54
Heptachlor	U		3.3	12	µg/Kg-dry	1	4/18/2017 19:54
Heptachlor epoxide	U		2.1	12	µg/Kg-dry	1	4/18/2017 19:54
Methoxychlor	U		2.0	12	µg/Kg-dry	1	4/18/2017 19:54
Toxaphene	U		13	70	µg/Kg-dry	1	4/18/2017 19:54
Surr: Decachlorobiphenyl	*72.5*			*50-150*	*%REC*	1	4/18/2017 19:54
Surr: Tetrachloro-m-xylene	*106*			*50-150*	*%REC*	1	4/18/2017 19:54
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 24 (4-6) - DUP - 041117
Collection Date: 4/11/2017 11:50 AM

Work Order: 1704626
Lab ID: 1704626-25
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.14**		**0.0029**	**0.018**	**mg/Kg-dry**	1	4/19/2017 14:11
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**8.3**		**0.27**	**1.8**	**mg/Kg-dry**	4	4/19/2017 02:23
Barium	**490**		**0.26**	**1.8**	**mg/Kg-dry**	4	4/19/2017 02:23
Cadmium	**0.58**	J	**0.015**	**0.73**	**mg/Kg-dry**	4	4/19/2017 02:23
Chromium	**42**		**0.088**	**1.8**	**mg/Kg-dry**	4	4/19/2017 15:48
Lead	**200**		**0.029**	**1.8**	**mg/Kg-dry**	4	4/19/2017 02:23
Selenium	**1.3**	J	**0.55**	**1.8**	**mg/Kg-dry**	4	4/19/2017 02:23
Silver	**0.67**	J	**0.015**	**1.8**	**mg/Kg-dry**	4	4/19/2017 02:23
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		5.0	50	µg/Kg-dry	1	4/19/2017 21:16
2-Methylnaphthalene	**220**		**8.2**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Acenaphthene	**200**		**3.6**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Acenaphthylene	**150**		**4.4**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Anthracene	U		1.8	50	µg/Kg-dry	1	4/19/2017 21:16
Benzo(a)anthracene	**270**		**3.1**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Benzo(a)pyrene	U		1.3	50	µg/Kg-dry	1	4/19/2017 21:16
Benzo(b)fluoranthene	**440**		**1.9**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Benzo(g,h,i)perylene	U		3.4	50	µg/Kg-dry	1	4/19/2017 21:16
Benzo(k)fluoranthene	**64**		**2.6**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Chrysene	**260**		**1.9**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Dibenzo(a,h)anthracene	U		1.6	50	µg/Kg-dry	1	4/19/2017 21:16
Fluoranthene	**390**		**1.4**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Fluorene	**380**		**1.6**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Indeno(1,2,3-cd)pyrene	U		1.5	50	µg/Kg-dry	1	4/19/2017 21:16
Naphthalene	**240**		**9.4**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Phenanthrene	**310**		**1.7**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Pyrene	**250**		**1.8**	**50**	**µg/Kg-dry**	1	4/19/2017 21:16
Surr: 2-Fluorobiphenyl	*71.0*			*20-140*	*%REC*	1	4/19/2017 21:16
Surr: 4-Terphenyl-d14	*76.6*			*22-172*	*%REC*	1	4/19/2017 21:16
Surr: Nitrobenzene-d5	*64.8*			*8-140*	*%REC*	1	4/19/2017 21:16
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/14/17		Analyst: **AK**
1,1,1-Trichloroethane	U		120	430	µg/Kg-dry	10	4/15/2017 05:00
1,1,2,2-Tetrachloroethane	U		100	430	µg/Kg-dry	10	4/15/2017 05:00
1,1,2-Trichloroethane	U		130	430	µg/Kg-dry	10	4/15/2017 05:00
1,1-Dichloroethane	U		110	430	µg/Kg-dry	10	4/15/2017 05:00
1,1-Dichloroethene	U		120	430	µg/Kg-dry	10	4/15/2017 05:00
1,2-Dichloroethane	U		120	430	µg/Kg-dry	10	4/15/2017 05:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 24 (4-6) - DUP - 041117
Collection Date: 4/11/2017 11:50 AM

Work Order: 1704626
Lab ID: 1704626-25
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		120	430	µg/Kg-dry	10	4/15/2017 05:00
2-Butanone	U		580	2,900	µg/Kg-dry	10	4/15/2017 05:00
2-Hexanone	U		290	430	µg/Kg-dry	10	4/15/2017 05:00
4-Methyl-2-pentanone	U		320	430	µg/Kg-dry	10	4/15/2017 05:00
Acetone	U		780	1,400	µg/Kg-dry	10	4/15/2017 05:00
Benzene	U		98	430	µg/Kg-dry	10	4/15/2017 05:00
Bromodichloromethane	U		120	430	µg/Kg-dry	10	4/15/2017 05:00
Bromoform	U		150	430	µg/Kg-dry	10	4/15/2017 05:00
Bromomethane	U		190	1,100	µg/Kg-dry	10	4/15/2017 05:00
Carbon disulfide	U		150	430	µg/Kg-dry	10	4/15/2017 05:00
Carbon tetrachloride	U		77	430	µg/Kg-dry	10	4/15/2017 05:00
Chlorobenzene	U		130	430	µg/Kg-dry	10	4/15/2017 05:00
Chloroethane	U		270	1,400	µg/Kg-dry	10	4/15/2017 05:00
Chloroform	U		150	430	µg/Kg-dry	10	4/15/2017 05:00
cis-1,2-Dichloroethene	U		120	430	µg/Kg-dry	10	4/15/2017 05:00
cis-1,3-Dichloropropene	U		170	430	µg/Kg-dry	10	4/15/2017 05:00
Dibromochloromethane	U		98	430	µg/Kg-dry	10	4/15/2017 05:00
Ethylbenzene	U		100	430	µg/Kg-dry	10	4/15/2017 05:00
Methyl tert-butyl ether	U		140	430	µg/Kg-dry	10	4/15/2017 05:00
Methylene chloride	U		200	430	µg/Kg-dry	10	4/15/2017 05:00
Styrene	U		300	430	µg/Kg-dry	10	4/15/2017 05:00
Tetrachloroethene	U		210	430	µg/Kg-dry	10	4/15/2017 05:00
Toluene	U		140	430	µg/Kg-dry	10	4/15/2017 05:00
trans-1,2-Dichloroethene	U		120	430	µg/Kg-dry	10	4/15/2017 05:00
trans-1,3-Dichloropropene	U		77	430	µg/Kg-dry	10	4/15/2017 05:00
Trichloroethene	U		120	430	µg/Kg-dry	10	4/15/2017 05:00
Vinyl chloride	U		140	430	µg/Kg-dry	10	4/15/2017 05:00
Xylenes, Total	U		330	1,300	µg/Kg-dry	10	4/15/2017 05:00
Surr: 1,2-Dichloroethane-d4	*100*			*70-130*	*%REC*	10	4/15/2017 05:00
Surr: 4-Bromofluorobenzene	*100*			*70-130*	*%REC*	10	4/15/2017 05:00
Surr: Dibromofluoromethane	*94.5*			*70-130*	*%REC*	10	4/15/2017 05:00
Surr: Toluene-d8	*94.2*			*70-130*	*%REC*	10	4/15/2017 05:00
MOISTURE		Method:	**SW3550C**				Analyst: **EDL**
Moisture	**18**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 2 (6-8) - 041117
Collection Date: 4/11/2017 12:15 PM

Work Order: 1704626
Lab ID: 1704626-26
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		11	86	µg/Kg-dry	1	4/20/2017 11:17
Aroclor 1221	U		11	86	µg/Kg-dry	1	4/20/2017 11:17
Aroclor 1232	U		11	86	µg/Kg-dry	1	4/20/2017 11:17
Aroclor 1242	U		11	86	µg/Kg-dry	1	4/20/2017 11:17
Aroclor 1248	U		11	86	µg/Kg-dry	1	4/20/2017 11:17
Aroclor 1254	U		7.8	86	µg/Kg-dry	1	4/20/2017 11:17
Aroclor 1260	U		7.8	86	µg/Kg-dry	1	4/20/2017 11:17
Aroclor 1262	U		7.8	86	µg/Kg-dry	1	4/20/2017 11:17
Aroclor 1268	U		7.8	86	µg/Kg-dry	1	4/20/2017 11:17
Surr: Decachlorobiphenyl	*64.0*			*40-140*	*%REC*	1	4/20/2017 11:17
Surr: Tetrachloro-m-xylene	*59.7*			*45-124*	*%REC*	1	4/20/2017 11:17
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.8	13	µg/Kg-dry	1	4/18/2017 20:09
4,4´-DDE	U		2.5	13	µg/Kg-dry	1	4/18/2017 20:09
4,4´-DDT	U		2.1	13	µg/Kg-dry	1	4/18/2017 20:09
Aldrin	U		2.6	13	µg/Kg-dry	1	4/18/2017 20:09
alpha-BHC	U		2.5	13	µg/Kg-dry	1	4/18/2017 20:09
alpha-Chlordane	U		2.5	13	µg/Kg-dry	1	4/18/2017 20:09
beta-BHC	U		2.4	13	µg/Kg-dry	1	4/18/2017 20:09
Chlordane, Technical	U		13	32	µg/Kg-dry	1	4/18/2017 20:09
delta-BHC	U		6.7	13	µg/Kg-dry	1	4/18/2017 20:09
Dieldrin	U		2.5	13	µg/Kg-dry	1	4/18/2017 20:09
Endosulfan I	U		2.1	13	µg/Kg-dry	1	4/18/2017 20:09
Endosulfan II	U		2.5	13	µg/Kg-dry	1	4/18/2017 20:09
Endosulfan sulfate	U		2.7	13	µg/Kg-dry	1	4/18/2017 20:09
Endrin	U		2.7	13	µg/Kg-dry	1	4/18/2017 20:09
Endrin aldehyde	U		2.2	13	µg/Kg-dry	1	4/18/2017 20:09
Endrin ketone	U		2.4	13	µg/Kg-dry	1	4/18/2017 20:09
gamma-BHC (Lindane)	U		3.1	13	µg/Kg-dry	1	4/18/2017 20:09
gamma-Chlordane	U		2.9	13	µg/Kg-dry	1	4/18/2017 20:09
Heptachlor	U		3.6	13	µg/Kg-dry	1	4/18/2017 20:09
Heptachlor epoxide	U		2.4	13	µg/Kg-dry	1	4/18/2017 20:09
Methoxychlor	U		2.2	13	µg/Kg-dry	1	4/18/2017 20:09
Toxaphene	U		14	78	µg/Kg-dry	1	4/18/2017 20:09
Surr: Decachlorobiphenyl	*60.7*			*50-150*	*%REC*	1	4/18/2017 20:09
Surr: Tetrachloro-m-xylene	*80.0*			*50-150*	*%REC*	1	4/18/2017 20:09
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 2 (6-8) - 041117
Collection Date: 4/11/2017 12:15 PM

Work Order: 1704626
Lab ID: 1704626-26
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.057**		**0.0037**	**0.023**	**mg/Kg-dry**	1	4/19/2017 14:39
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**6.4**		**0.31**	**2.1**	**mg/Kg-dry**	4	4/19/2017 02:29
Barium	**94**		**0.29**	**2.1**	**mg/Kg-dry**	4	4/19/2017 02:29
Cadmium	U		0.017	0.83	mg/Kg-dry	4	4/19/2017 02:29
Chromium	**26**		**0.099**	**2.1**	**mg/Kg-dry**	4	4/19/2017 15:54
Lead	**74**		**0.033**	**2.1**	**mg/Kg-dry**	4	4/19/2017 02:29
Selenium	**2.1**		**0.62**	**2.1**	**mg/Kg-dry**	4	4/19/2017 02:29
Silver	**0.13**	J	**0.017**	**2.1**	**mg/Kg-dry**	4	4/19/2017 02:29
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		5.5	55	µg/Kg-dry	1	4/19/2017 21:42
2-Methylnaphthalene	**8,600**		**8.9**	**55**	**µg/Kg-dry**	1	4/19/2017 21:42
Acenaphthene	**310**		**3.9**	**55**	**µg/Kg-dry**	1	4/19/2017 21:42
Acenaphthylene	**210**		**4.8**	**55**	**µg/Kg-dry**	1	4/19/2017 21:42
Anthracene	U		2.0	55	µg/Kg-dry	1	4/19/2017 21:42
Benzo(a)anthracene	**200**		**3.4**	**55**	**µg/Kg-dry**	1	4/19/2017 21:42
Benzo(a)pyrene	U		1.4	55	µg/Kg-dry	1	4/19/2017 21:42
Benzo(b)fluoranthene	U		2.1	55	µg/Kg-dry	1	4/19/2017 21:42
Benzo(g,h,i)perylene	U		3.7	55	µg/Kg-dry	1	4/19/2017 21:42
Benzo(k)fluoranthene	U		2.8	55	µg/Kg-dry	1	4/19/2017 21:42
Chrysene	**70**		**2.1**	**55**	**µg/Kg-dry**	1	4/19/2017 21:42
Dibenzo(a,h)anthracene	U		1.8	55	µg/Kg-dry	1	4/19/2017 21:42
Fluoranthene	**110**		**1.6**	**55**	**µg/Kg-dry**	1	4/19/2017 21:42
Fluorene	**650**		**1.8**	**55**	**µg/Kg-dry**	1	4/19/2017 21:42
Indeno(1,2,3-cd)pyrene	U		1.7	55	µg/Kg-dry	1	4/19/2017 21:42
Naphthalene	**1,600**		**10**	**55**	**µg/Kg-dry**	1	4/19/2017 21:42
Phenanthrene	**1,100**		**1.9**	**55**	**µg/Kg-dry**	1	4/19/2017 21:42
Pyrene	U		2.0	55	µg/Kg-dry	1	4/19/2017 21:42
Surr: 2-Fluorobiphenyl	*70.1*			*20-140*	*%REC*	1	4/19/2017 21:42
Surr: 4-Terphenyl-d14	*72.1*			*22-172*	*%REC*	1	4/19/2017 21:42
Surr: Nitrobenzene-d5	*52.9*			*8-140*	*%REC*	1	4/19/2017 21:42
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/14/17		Analyst: **AK**
1,1,1-Trichloroethane	U		140	500	µg/Kg-dry	10	4/18/2017 09:10
1,1,2,2-Tetrachloroethane	U		120	500	µg/Kg-dry	10	4/18/2017 09:10
1,1,2-Trichloroethane	U		150	500	µg/Kg-dry	10	4/18/2017 09:10
1,1-Dichloroethane	U		130	500	µg/Kg-dry	10	4/18/2017 09:10
1,1-Dichloroethene	U		130	500	µg/Kg-dry	10	4/18/2017 09:10
1,2-Dichloroethane	U		140	500	µg/Kg-dry	10	4/18/2017 09:10

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 2 (6-8) - 041117
Collection Date: 4/11/2017 12:15 PM

Work Order: 1704626
Lab ID: 1704626-26
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		140	500	µg/Kg-dry	10	4/18/2017 09:10
2-Butanone	U		670	3,300	µg/Kg-dry	10	4/18/2017 09:10
2-Hexanone	U		330	500	µg/Kg-dry	10	4/18/2017 09:10
4-Methyl-2-pentanone	U		360	500	µg/Kg-dry	10	4/18/2017 09:10
Acetone	U		910	1,700	µg/Kg-dry	10	4/18/2017 09:10
Benzene	**390**	J	**110**	**500**	**µg/Kg-dry**	10	4/18/2017 09:10
Bromodichloromethane	U		130	500	µg/Kg-dry	10	4/18/2017 09:10
Bromoform	U		180	500	µg/Kg-dry	10	4/18/2017 09:10
Bromomethane	U		220	1,200	µg/Kg-dry	10	4/18/2017 09:10
Carbon disulfide	U		170	500	µg/Kg-dry	10	4/18/2017 09:10
Carbon tetrachloride	U		89	500	µg/Kg-dry	10	4/18/2017 09:10
Chlorobenzene	U		150	500	µg/Kg-dry	10	4/18/2017 09:10
Chloroethane	U		320	1,700	µg/Kg-dry	10	4/18/2017 09:10
Chloroform	U		170	500	µg/Kg-dry	10	4/18/2017 09:10
cis-1,2-Dichloroethene	U		140	500	µg/Kg-dry	10	4/18/2017 09:10
cis-1,3-Dichloropropene	U		190	500	µg/Kg-dry	10	4/18/2017 09:10
Dibromochloromethane	U		110	500	µg/Kg-dry	10	4/18/2017 09:10
Ethylbenzene	**2,900**		**120**	**500**	**µg/Kg-dry**	10	4/18/2017 09:10
Methyl tert-butyl ether	U		160	500	µg/Kg-dry	10	4/18/2017 09:10
Methylene chloride	U		230	500	µg/Kg-dry	10	4/18/2017 09:10
Styrene	U		350	500	µg/Kg-dry	10	4/18/2017 09:10
Tetrachloroethene	U		250	500	µg/Kg-dry	10	4/18/2017 09:10
Toluene	U		170	500	µg/Kg-dry	10	4/18/2017 09:10
trans-1,2-Dichloroethene	U		140	500	µg/Kg-dry	10	4/18/2017 09:10
trans-1,3-Dichloropropene	U		89	500	µg/Kg-dry	10	4/18/2017 09:10
Trichloroethene	U		130	500	µg/Kg-dry	10	4/18/2017 09:10
Vinyl chloride	U		160	500	µg/Kg-dry	10	4/18/2017 09:10
Xylenes, Total	**7,900**		**390**	**1,500**	**µg/Kg-dry**	10	4/18/2017 09:10
Surr: 1,2-Dichloroethane-d4	*106*			*70-130*	*%REC*	10	4/18/2017 09:10
Surr: 4-Bromofluorobenzene	*100*			*70-130*	*%REC*	10	4/18/2017 09:10
Surr: Dibromofluoromethane	*98.0*			*70-130*	*%REC*	10	4/18/2017 09:10
Surr: Toluene-d8	*109*			*70-130*	*%REC*	10	4/18/2017 09:10

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**25**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 2 (12-14) - 041117
Collection Date: 4/11/2017 12:20 PM

Work Order: 1704626
Lab ID: 1704626-27
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PARTICLE-SIZE ANALYSIS OF SOILS		Method: **D422**					Analyst: **LR**
3 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
1.5 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
0.75 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
0.375 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
No. 4 Sieve (4.75 mm)	**100**		**0**		**% Passing**	1	4/20/2017
No. 10 Sieve (2.00 mm)	**99.5**		**0**		**% Passing**	1	4/20/2017
No. 16 Sieve (1.18 mm)	**99.3**		**0**		**% Passing**	1	4/20/2017
No. 30 Sieve (0.60 mm)	**99.1**		**0**		**% Passing**	1	4/20/2017
No. 50 Sieve (0.30 mm)	**94.9**		**0**		**% Passing**	1	4/20/2017
No. 60 Sieve (0.25 mm)	**88.0**		**0**		**% Passing**	1	4/20/2017
No. 100 Sieve (0.15 mm)	**49.7**		**0**		**% Passing**	1	4/20/2017
No. 200 Sieve (0.075 mm)	**23.5**		**0**		**% Passing**	1	4/20/2017
0.030 mm (Hydrometer)	**13.0**		**0**		**% Passing**	1	4/20/2017
0.005 mm (Hydrometer)	**3.00**		**0**		**% Passing**	1	4/20/2017
0.0015 mm (Hydrometer)	**2.00**		**0**		**% Passing**	1	4/20/2017
% Gravel	**0.479**		**0**		**% Passing**	1	4/20/2017
% Sand	**76.0**		**0**		**% Passing**	1	4/20/2017
% Silt, Clay, Colloids	**23.5**		**0**		**% Passing**	1	4/20/2017

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 2 (8-10) - 041117
Collection Date: 4/11/2017 12:18 PM

Work Order: 1704626
Lab ID: 1704626-28
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		11	81	µg/Kg-dry	1	4/20/2017 11:32
Aroclor 1221	U		11	81	µg/Kg-dry	1	4/20/2017 11:32
Aroclor 1232	U		11	81	µg/Kg-dry	1	4/20/2017 11:32
Aroclor 1242	U		11	81	µg/Kg-dry	1	4/20/2017 11:32
Aroclor 1248	U		11	81	µg/Kg-dry	1	4/20/2017 11:32
Aroclor 1254	U		7.4	81	µg/Kg-dry	1	4/20/2017 11:32
Aroclor 1260	U		7.4	81	µg/Kg-dry	1	4/20/2017 11:32
Aroclor 1262	U		7.4	81	µg/Kg-dry	1	4/20/2017 11:32
Aroclor 1268	U		7.4	81	µg/Kg-dry	1	4/20/2017 11:32
Surr: Decachlorobiphenyl	*71.3*			*40-140*	*%REC*	1	4/20/2017 11:32
Surr: Tetrachloro-m-xylene	*76.8*			*45-124*	*%REC*	1	4/20/2017 11:32
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.7	12	µg/Kg-dry	1	4/18/2017 20:23
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/18/2017 20:23
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/18/2017 20:23
Aldrin	U		2.4	12	µg/Kg-dry	1	4/18/2017 20:23
alpha-BHC	U		2.4	12	µg/Kg-dry	1	4/18/2017 20:23
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/18/2017 20:23
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/18/2017 20:23
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/18/2017 20:23
delta-BHC	U		6.3	12	µg/Kg-dry	1	4/18/2017 20:23
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/18/2017 20:23
Endosulfan I	U		2.0	12	µg/Kg-dry	1	4/18/2017 20:23
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/18/2017 20:23
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/18/2017 20:23
Endrin	U		2.5	12	µg/Kg-dry	1	4/18/2017 20:23
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/18/2017 20:23
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/18/2017 20:23
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/18/2017 20:23
gamma-Chlordane	U		2.8	12	µg/Kg-dry	1	4/18/2017 20:23
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/18/2017 20:23
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/18/2017 20:23
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/18/2017 20:23
Toxaphene	U		13	73	µg/Kg-dry	1	4/18/2017 20:23
Surr: Decachlorobiphenyl	*58.9*			*50-150*	*%REC*	1	4/18/2017 20:23
Surr: Tetrachloro-m-xylene	*79.9*			*50-150*	*%REC*	1	4/18/2017 20:23
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 2 (8-10) - 041117
Collection Date: 4/11/2017 12:18 PM

Work Order: 1704626
Lab ID: 1704626-28
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.022**		**0.0029**	**0.017**	**mg/Kg-dry**	1	4/19/2017 14:42
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**3.9**		**0.28**	**1.9**	**mg/Kg-dry**	4	4/19/2017 02:53
Barium	**61**		**0.26**	**1.9**	**mg/Kg-dry**	4	4/19/2017 02:53
Cadmium	U		0.015	0.75	mg/Kg-dry	4	4/19/2017 02:53
Chromium	**20**		**0.089**	**1.9**	**mg/Kg-dry**	4	4/19/2017 16:19
Lead	**12**		**0.030**	**1.9**	**mg/Kg-dry**	4	4/19/2017 02:53
Selenium	**1.9**		**0.56**	**1.9**	**mg/Kg-dry**	4	4/19/2017 02:53
Silver	**0.069**	J	**0.015**	**1.9**	**mg/Kg-dry**	4	4/19/2017 02:53
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		5.0	50	µg/Kg-dry	1	4/19/2017 22:09
2-Methylnaphthalene	**260**		**8.2**	**50**	**µg/Kg-dry**	1	4/19/2017 22:09
Acenaphthene	U		3.6	50	µg/Kg-dry	1	4/19/2017 22:09
Acenaphthylene	U		4.4	50	µg/Kg-dry	1	4/19/2017 22:09
Anthracene	U		1.8	50	µg/Kg-dry	1	4/19/2017 22:09
Benzo(a)anthracene	U		3.1	50	µg/Kg-dry	1	4/19/2017 22:09
Benzo(a)pyrene	U		1.3	50	µg/Kg-dry	1	4/19/2017 22:09
Benzo(b)fluoranthene	U		1.9	50	µg/Kg-dry	1	4/19/2017 22:09
Benzo(g,h,i)perylene	U		3.4	50	µg/Kg-dry	1	4/19/2017 22:09
Benzo(k)fluoranthene	U		2.6	50	µg/Kg-dry	1	4/19/2017 22:09
Chrysene	U		1.9	50	µg/Kg-dry	1	4/19/2017 22:09
Dibenzo(a,h)anthracene	U		1.6	50	µg/Kg-dry	1	4/19/2017 22:09
Fluoranthene	U		1.4	50	µg/Kg-dry	1	4/19/2017 22:09
Fluorene	U		1.6	50	µg/Kg-dry	1	4/19/2017 22:09
Indeno(1,2,3-cd)pyrene	U		1.5	50	µg/Kg-dry	1	4/19/2017 22:09
Naphthalene	**77**		**9.5**	**50**	**µg/Kg-dry**	1	4/19/2017 22:09
Phenanthrene	U		1.7	50	µg/Kg-dry	1	4/19/2017 22:09
Pyrene	U		1.8	50	µg/Kg-dry	1	4/19/2017 22:09
Surr: 2-Fluorobiphenyl	*86.9*			*20-140*	*%REC*	1	4/19/2017 22:09
Surr: 4-Terphenyl-d14	*87.5*			*22-172*	*%REC*	1	4/19/2017 22:09
Surr: Nitrobenzene-d5	*64.2*			*8-140*	*%REC*	1	4/19/2017 22:09
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/14/17		Analyst: **AK**
1,1,1-Trichloroethane	U		13	45	µg/Kg-dry	1	4/17/2017 14:55
1,1,2,2-Tetrachloroethane	U		11	45	µg/Kg-dry	1	4/17/2017 14:55
1,1,2-Trichloroethane	U		13	45	µg/Kg-dry	1	4/17/2017 14:55
1,1-Dichloroethane	U		11	45	µg/Kg-dry	1	4/17/2017 14:55
1,1-Dichloroethene	U		12	45	µg/Kg-dry	1	4/17/2017 14:55
1,2-Dichloroethane	U		12	45	µg/Kg-dry	1	4/17/2017 14:55

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 2 (8-10) - 041117
Collection Date: 4/11/2017 12:18 PM

Work Order: 1704626
Lab ID: 1704626-28
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	45	µg/Kg-dry	1	4/17/2017 14:55
2-Butanone	U		61	300	µg/Kg-dry	1	4/17/2017 14:55
2-Hexanone	U		30	45	µg/Kg-dry	1	4/17/2017 14:55
4-Methyl-2-pentanone	U		33	45	µg/Kg-dry	1	4/17/2017 14:55
Acetone	U		82	150	µg/Kg-dry	1	4/17/2017 14:55
Benzene	U		10	45	µg/Kg-dry	1	4/17/2017 14:55
Bromodichloromethane	U		12	45	µg/Kg-dry	1	4/17/2017 14:55
Bromoform	U		16	45	µg/Kg-dry	1	4/17/2017 14:55
Bromomethane	U		20	110	µg/Kg-dry	1	4/17/2017 14:55
Carbon disulfide	U		15	45	µg/Kg-dry	1	4/17/2017 14:55
Carbon tetrachloride	U		8.0	45	µg/Kg-dry	1	4/17/2017 14:55
Chlorobenzene	U		14	45	µg/Kg-dry	1	4/17/2017 14:55
Chloroethane	U		29	150	µg/Kg-dry	1	4/17/2017 14:55
Chloroform	U		15	45	µg/Kg-dry	1	4/17/2017 14:55
cis-1,2-Dichloroethene	U		13	45	µg/Kg-dry	1	4/17/2017 14:55
cis-1,3-Dichloropropene	U		17	45	µg/Kg-dry	1	4/17/2017 14:55
Dibromochloromethane	U		10	45	µg/Kg-dry	1	4/17/2017 14:55
Ethylbenzene	U		10	45	µg/Kg-dry	1	4/17/2017 14:55
Methyl tert-butyl ether	U		15	45	µg/Kg-dry	1	4/17/2017 14:55
Methylene chloride	U		21	45	µg/Kg-dry	1	4/17/2017 14:55
Styrene	U		32	45	µg/Kg-dry	1	4/17/2017 14:55
Tetrachloroethene	U		22	45	µg/Kg-dry	1	4/17/2017 14:55
Toluene	U		15	45	µg/Kg-dry	1	4/17/2017 14:55
trans-1,2-Dichloroethene	U		13	45	µg/Kg-dry	1	4/17/2017 14:55
trans-1,3-Dichloropropene	U		8.0	45	µg/Kg-dry	1	4/17/2017 14:55
Trichloroethene	U		12	45	µg/Kg-dry	1	4/17/2017 14:55
Vinyl chloride	U		14	45	µg/Kg-dry	1	4/17/2017 14:55
Xylenes, Total	**270**		**35**	**140**	**µg/Kg-dry**	1	4/17/2017 14:55
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	4/17/2017 14:55
Surr: 4-Bromofluorobenzene	*105*			*70-130*	*%REC*	1	4/17/2017 14:55
Surr: Dibromofluoromethane	*95.2*			*70-130*	*%REC*	1	4/17/2017 14:55
Surr: Toluene-d8	*96.4*			*70-130*	*%REC*	1	4/17/2017 14:55

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**20**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 22 (4-6) - 041117
Collection Date: 4/11/2017 12:45 PM

Work Order: 1704626
Lab ID: 1704626-29
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		11	88	µg/Kg-dry	1	4/20/2017 11:46
Aroclor 1221	U		11	88	µg/Kg-dry	1	4/20/2017 11:46
Aroclor 1232	U		11	88	µg/Kg-dry	1	4/20/2017 11:46
Aroclor 1242	U		11	88	µg/Kg-dry	1	4/20/2017 11:46
Aroclor 1248	U		11	88	µg/Kg-dry	1	4/20/2017 11:46
Aroclor 1254	U		8.0	88	µg/Kg-dry	1	4/20/2017 11:46
Aroclor 1260	U		8.0	88	µg/Kg-dry	1	4/20/2017 11:46
Aroclor 1262	U		8.0	88	µg/Kg-dry	1	4/20/2017 11:46
Aroclor 1268	U		8.0	88	µg/Kg-dry	1	4/20/2017 11:46
Surr: Decachlorobiphenyl	*38.6*	S		*40-140*	*%REC*	1	4/20/2017 11:46
Surr: Tetrachloro-m-xylene	*41.8*	S		*45-124*	*%REC*	1	4/20/2017 11:46
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.9	13	µg/Kg-dry	1	4/18/2017 23:00
4,4´-DDE	U		2.5	13	µg/Kg-dry	1	4/18/2017 23:00
4,4´-DDT	**3.8**	J	**2.1**	**13**	**µg/Kg-dry**	1	4/18/2017 23:00
Aldrin	U		2.6	13	µg/Kg-dry	1	4/18/2017 23:00
alpha-BHC	U		2.6	13	µg/Kg-dry	1	4/18/2017 23:00
alpha-Chlordane	U		2.5	13	µg/Kg-dry	1	4/18/2017 23:00
beta-BHC	U		2.4	13	µg/Kg-dry	1	4/18/2017 23:00
Chlordane, Technical	U		13	33	µg/Kg-dry	1	4/18/2017 23:00
delta-BHC	U		6.8	13	µg/Kg-dry	1	4/18/2017 23:00
Dieldrin	U		2.5	13	µg/Kg-dry	1	4/18/2017 23:00
Endosulfan I	U		2.1	13	µg/Kg-dry	1	4/18/2017 23:00
Endosulfan II	U		2.5	13	µg/Kg-dry	1	4/18/2017 23:00
Endosulfan sulfate	U		2.7	13	µg/Kg-dry	1	4/18/2017 23:00
Endrin	U		2.7	13	µg/Kg-dry	1	4/18/2017 23:00
Endrin aldehyde	U		2.3	13	µg/Kg-dry	1	4/18/2017 23:00
Endrin ketone	U		2.5	13	µg/Kg-dry	1	4/18/2017 23:00
gamma-BHC (Lindane)	U		3.2	13	µg/Kg-dry	1	4/18/2017 23:00
gamma-Chlordane	U		3.0	13	µg/Kg-dry	1	4/18/2017 23:00
Heptachlor	U		3.7	13	µg/Kg-dry	1	4/18/2017 23:00
Heptachlor epoxide	U		2.4	13	µg/Kg-dry	1	4/18/2017 23:00
Methoxychlor	U		2.3	13	µg/Kg-dry	1	4/18/2017 23:00
Toxaphene	U		14	79	µg/Kg-dry	1	4/18/2017 23:00
Surr: Decachlorobiphenyl	*74.5*			*50-150*	*%REC*	1	4/18/2017 23:00
Surr: Tetrachloro-m-xylene	*53.1*			*50-150*	*%REC*	1	4/18/2017 23:00
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 22 (4-6) - 041117
Collection Date: 4/11/2017 12:45 PM

Work Order: 1704626
Lab ID: 1704626-29
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.30**		**0.0034**	**0.021**	**mg/Kg-dry**	1	4/19/2017 14:48
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**14**		**0.28**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:00
Barium	**210**		**0.26**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:00
Cadmium	**0.47**	J	**0.015**	**0.75**	**mg/Kg-dry**	4	4/19/2017 03:00
Chromium	**210**		**0.090**	**1.9**	**mg/Kg-dry**	4	4/19/2017 18:04
Lead	**970**		**0.30**	**19**	**mg/Kg-dry**	40	4/20/2017 23:27
Selenium	**2.2**		**0.57**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:00
Silver	**1.5**	J	**0.015**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:00
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		5.5	55	µg/Kg-dry	1	4/19/2017 22:35
2-Methylnaphthalene	**5,200**		**9.0**	**55**	**µg/Kg-dry**	1	4/19/2017 22:35
Acenaphthene	**120**		**3.9**	**55**	**µg/Kg-dry**	1	4/19/2017 22:35
Acenaphthylene	U		4.9	55	µg/Kg-dry	1	4/19/2017 22:35
Anthracene	U		2.0	55	µg/Kg-dry	1	4/19/2017 22:35
Benzo(a)anthracene	**1,300**		**3.4**	**55**	**µg/Kg-dry**	1	4/19/2017 22:35
Benzo(a)pyrene	U		1.4	55	µg/Kg-dry	1	4/19/2017 22:35
Benzo(b)fluoranthene	U		2.1	55	µg/Kg-dry	1	4/19/2017 22:35
Benzo(g,h,i)perylene	U		3.7	55	µg/Kg-dry	1	4/19/2017 22:35
Benzo(k)fluoranthene	U		2.9	55	µg/Kg-dry	1	4/19/2017 22:35
Chrysene	**2,100**		**2.1**	**55**	**µg/Kg-dry**	1	4/19/2017 22:35
Dibenzo(a,h)anthracene	U		1.8	55	µg/Kg-dry	1	4/19/2017 22:35
Fluoranthene	**780**		**1.6**	**55**	**µg/Kg-dry**	1	4/19/2017 22:35
Fluorene	**240**		**1.8**	**55**	**µg/Kg-dry**	1	4/19/2017 22:35
Indeno(1,2,3-cd)pyrene	U		1.7	55	µg/Kg-dry	1	4/19/2017 22:35
Naphthalene	**6,500**		**10**	**55**	**µg/Kg-dry**	1	4/19/2017 22:35
Phenanthrene	**570**		**1.9**	**55**	**µg/Kg-dry**	1	4/19/2017 22:35
Pyrene	**2,400**		**2.0**	**55**	**µg/Kg-dry**	1	4/19/2017 22:35
Surr: 2-Fluorobiphenyl	*70.6*			*20-140*	*%REC*	1	4/19/2017 22:35
Surr: 4-Terphenyl-d14	*93.1*			*22-172*	*%REC*	1	4/19/2017 22:35
Surr: Nitrobenzene-d5	*68.0*			*8-140*	*%REC*	1	4/19/2017 22:35
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/14/17		Analyst: **AK**
1,1,1-Trichloroethane	U		15	51	µg/Kg-dry	1	4/15/2017 06:15
1,1,2,2-Tetrachloroethane	U		12	51	µg/Kg-dry	1	4/15/2017 06:15
1,1,2-Trichloroethane	U		15	51	µg/Kg-dry	1	4/15/2017 06:15
1,1-Dichloroethane	U		13	51	µg/Kg-dry	1	4/15/2017 06:15
1,1-Dichloroethene	U		14	51	µg/Kg-dry	1	4/15/2017 06:15
1,2-Dichloroethane	U		14	51	µg/Kg-dry	1	4/15/2017 06:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 22 (4-6) - 041117
Collection Date: 4/11/2017 12:45 PM

Work Order: 1704626
Lab ID: 1704626-29
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		14	51	µg/Kg-dry	1	4/15/2017 06:15
2-Butanone	U		69	340	µg/Kg-dry	1	4/15/2017 06:15
2-Hexanone	U		34	51	µg/Kg-dry	1	4/15/2017 06:15
4-Methyl-2-pentanone	U		37	51	µg/Kg-dry	1	4/15/2017 06:15
Acetone	**360**		**93**	**170**	**µg/Kg-dry**	1	4/15/2017 06:15
Benzene	**160**		**12**	**51**	**µg/Kg-dry**	1	4/15/2017 06:15
Bromodichloromethane	U		14	51	µg/Kg-dry	1	4/15/2017 06:15
Bromoform	U		18	51	µg/Kg-dry	1	4/15/2017 06:15
Bromomethane	U		22	130	µg/Kg-dry	1	4/15/2017 06:15
Carbon disulfide	U		17	51	µg/Kg-dry	1	4/15/2017 06:15
Carbon tetrachloride	U		9.1	51	µg/Kg-dry	1	4/15/2017 06:15
Chlorobenzene	U		15	51	µg/Kg-dry	1	4/15/2017 06:15
Chloroethane	U		33	170	µg/Kg-dry	1	4/15/2017 06:15
Chloroform	U		17	51	µg/Kg-dry	1	4/15/2017 06:15
cis-1,2-Dichloroethene	U		14	51	µg/Kg-dry	1	4/15/2017 06:15
cis-1,3-Dichloropropene	U		20	51	µg/Kg-dry	1	4/15/2017 06:15
Dibromochloromethane	U		12	51	µg/Kg-dry	1	4/15/2017 06:15
Ethylbenzene	**180**		**12**	**51**	**µg/Kg-dry**	1	4/15/2017 06:15
Methyl tert-butyl ether	U		17	51	µg/Kg-dry	1	4/15/2017 06:15
Methylene chloride	U		23	51	µg/Kg-dry	1	4/15/2017 06:15
Styrene	U		36	51	µg/Kg-dry	1	4/15/2017 06:15
Tetrachloroethene	U		25	51	µg/Kg-dry	1	4/15/2017 06:15
Toluene	U		17	51	µg/Kg-dry	1	4/15/2017 06:15
trans-1,2-Dichloroethene	U		14	51	µg/Kg-dry	1	4/15/2017 06:15
trans-1,3-Dichloropropene	U		9.1	51	µg/Kg-dry	1	4/15/2017 06:15
Trichloroethene	U		14	51	µg/Kg-dry	1	4/15/2017 06:15
Vinyl chloride	U		16	51	µg/Kg-dry	1	4/15/2017 06:15
Xylenes, Total	**600**		**40**	**150**	**µg/Kg-dry**	1	4/15/2017 06:15
Surr: 1,2-Dichloroethane-d4	*99.6*			*70-130*	*%REC*	1	4/15/2017 06:15
Surr: 4-Bromofluorobenzene	*102*			*70-130*	*%REC*	1	4/15/2017 06:15
Surr: Dibromofluoromethane	*95.2*			*70-130*	*%REC*	1	4/15/2017 06:15
Surr: Toluene-d8	*99.4*			*70-130*	*%REC*	1	4/15/2017 06:15

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**26**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 22 (8-10) - 041117
Collection Date: 4/11/2017 12:50 PM

Work Order: 1704626
Lab ID: 1704626-30
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		11	81	µg/Kg-dry	1	4/20/2017 12:00
Aroclor 1221	U		11	81	µg/Kg-dry	1	4/20/2017 12:00
Aroclor 1232	U		11	81	µg/Kg-dry	1	4/20/2017 12:00
Aroclor 1242	U		11	81	µg/Kg-dry	1	4/20/2017 12:00
Aroclor 1248	U		11	81	µg/Kg-dry	1	4/20/2017 12:00
Aroclor 1254	U		7.4	81	µg/Kg-dry	1	4/20/2017 12:00
Aroclor 1260	U		7.4	81	µg/Kg-dry	1	4/20/2017 12:00
Aroclor 1262	U		7.4	81	µg/Kg-dry	1	4/20/2017 12:00
Aroclor 1268	U		7.4	81	µg/Kg-dry	1	4/20/2017 12:00
Surr: Decachlorobiphenyl	*48.6*			*40-140*	*%REC*	1	4/20/2017 12:00
Surr: Tetrachloro-m-xylene	*47.7*			*45-124*	*%REC*	1	4/20/2017 12:00
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.7	12	µg/Kg-dry	1	4/18/2017 20:52
4,4´-DDE	U		2.4	12	µg/Kg-dry	1	4/18/2017 20:52
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/18/2017 20:52
Aldrin	U		2.4	12	µg/Kg-dry	1	4/18/2017 20:52
alpha-BHC	U		2.4	12	µg/Kg-dry	1	4/18/2017 20:52
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/18/2017 20:52
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/18/2017 20:52
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/18/2017 20:52
delta-BHC	U		6.3	12	µg/Kg-dry	1	4/18/2017 20:52
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/18/2017 20:52
Endosulfan I	U		2.0	12	µg/Kg-dry	1	4/18/2017 20:52
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/18/2017 20:52
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/18/2017 20:52
Endrin	U		2.5	12	µg/Kg-dry	1	4/18/2017 20:52
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/18/2017 20:52
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/18/2017 20:52
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/18/2017 20:52
gamma-Chlordane	U		2.8	12	µg/Kg-dry	1	4/18/2017 20:52
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/18/2017 20:52
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/18/2017 20:52
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/18/2017 20:52
Toxaphene	U		13	73	µg/Kg-dry	1	4/18/2017 20:52
Surr: Decachlorobiphenyl	*59.9*			*50-150*	*%REC*	1	4/18/2017 20:52
Surr: Tetrachloro-m-xylene	*75.3*			*50-150*	*%REC*	1	4/18/2017 20:52
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 22 (8-10) - 041117
Collection Date: 4/11/2017 12:50 PM

Work Order: 1704626
Lab ID: 1704626-30
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.036**		**0.0033**	**0.020**	**mg/Kg-dry**	1	4/19/2017 14:51
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**12**		**0.25**	**1.7**	**mg/Kg-dry**	4	4/19/2017 03:05
Barium	**110**		**0.24**	**1.7**	**mg/Kg-dry**	4	4/19/2017 03:05
Cadmium	U		0.014	0.69	mg/Kg-dry	4	4/19/2017 03:05
Chromium	**27**		**0.082**	**1.7**	**mg/Kg-dry**	4	4/19/2017 18:10
Lead	**38**		**0.027**	**1.7**	**mg/Kg-dry**	4	4/19/2017 03:05
Selenium	**2.7**		**0.51**	**1.7**	**mg/Kg-dry**	4	4/19/2017 03:05
Silver	**0.10**	J	**0.014**	**1.7**	**mg/Kg-dry**	4	4/19/2017 03:05
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RM**
2-Chloronaphthalene	U		5.0	51	µg/Kg-dry	1	4/19/2017 23:01
2-Methylnaphthalene	**6,000**		**8.2**	**51**	**µg/Kg-dry**	1	4/19/2017 23:01
Acenaphthene	**110**		**3.6**	**51**	**µg/Kg-dry**	1	4/19/2017 23:01
Acenaphthylene	**110**		**4.5**	**51**	**µg/Kg-dry**	1	4/19/2017 23:01
Anthracene	U		1.8	51	µg/Kg-dry	1	4/19/2017 23:01
Benzo(a)anthracene	U		3.1	51	µg/Kg-dry	1	4/19/2017 23:01
Benzo(a)pyrene	U		1.3	51	µg/Kg-dry	1	4/19/2017 23:01
Benzo(b)fluoranthene	U		1.9	51	µg/Kg-dry	1	4/19/2017 23:01
Benzo(g,h,i)perylene	U		3.4	51	µg/Kg-dry	1	4/19/2017 23:01
Benzo(k)fluoranthene	U		2.6	51	µg/Kg-dry	1	4/19/2017 23:01
Chrysene	U		1.9	51	µg/Kg-dry	1	4/19/2017 23:01
Dibenzo(a,h)anthracene	U		1.6	51	µg/Kg-dry	1	4/19/2017 23:01
Fluoranthene	U		1.5	51	µg/Kg-dry	1	4/19/2017 23:01
Fluorene	**140**		**1.6**	**51**	**µg/Kg-dry**	1	4/19/2017 23:01
Indeno(1,2,3-cd)pyrene	U		1.6	51	µg/Kg-dry	1	4/19/2017 23:01
Naphthalene	**1,000**		**9.5**	**51**	**µg/Kg-dry**	1	4/19/2017 23:01
Phenanthrene	**140**		**1.7**	**51**	**µg/Kg-dry**	1	4/19/2017 23:01
Pyrene	U		1.8	51	µg/Kg-dry	1	4/19/2017 23:01
Surr: 2-Fluorobiphenyl	*72.1*			*20-140*	*%REC*	1	4/19/2017 23:01
Surr: 4-Terphenyl-d14	*66.4*			*22-172*	*%REC*	1	4/19/2017 23:01
Surr: Nitrobenzene-d5	*56.5*			*8-140*	*%REC*	1	4/19/2017 23:01
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/14/17		Analyst: **AK**
1,1,1-Trichloroethane	U		13	44	µg/Kg-dry	1	4/17/2017 15:19
1,1,2,2-Tetrachloroethane	U		11	44	µg/Kg-dry	1	4/17/2017 15:19
1,1,2-Trichloroethane	U		13	44	µg/Kg-dry	1	4/17/2017 15:19
1,1-Dichloroethane	U		11	44	µg/Kg-dry	1	4/17/2017 15:19
1,1-Dichloroethene	U		12	44	µg/Kg-dry	1	4/17/2017 15:19
1,2-Dichloroethane	U		12	44	µg/Kg-dry	1	4/17/2017 15:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 22 (8-10) - 041117
Collection Date: 4/11/2017 12:50 PM

Work Order: 1704626
Lab ID: 1704626-30
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	44	µg/Kg-dry	1	4/17/2017 15:19
2-Butanone	U		59	290	µg/Kg-dry	1	4/17/2017 15:19
2-Hexanone	U		29	44	µg/Kg-dry	1	4/17/2017 15:19
4-Methyl-2-pentanone	U		32	44	µg/Kg-dry	1	4/17/2017 15:19
Acetone	U		80	150	µg/Kg-dry	1	4/17/2017 15:19
Benzene	**27**	J	**10**	**44**	**µg/Kg-dry**	1	4/17/2017 15:19
Bromodichloromethane	U		12	44	µg/Kg-dry	1	4/17/2017 15:19
Bromoform	U		16	44	µg/Kg-dry	1	4/17/2017 15:19
Bromomethane	U		19	110	µg/Kg-dry	1	4/17/2017 15:19
Carbon disulfide	U		15	44	µg/Kg-dry	1	4/17/2017 15:19
Carbon tetrachloride	U		7.8	44	µg/Kg-dry	1	4/17/2017 15:19
Chlorobenzene	U		13	44	µg/Kg-dry	1	4/17/2017 15:19
Chloroethane	U		28	150	µg/Kg-dry	1	4/17/2017 15:19
Chloroform	U		15	44	µg/Kg-dry	1	4/17/2017 15:19
cis-1,2-Dichloroethene	U		12	44	µg/Kg-dry	1	4/17/2017 15:19
cis-1,3-Dichloropropene	U		17	44	µg/Kg-dry	1	4/17/2017 15:19
Dibromochloromethane	U		10	44	µg/Kg-dry	1	4/17/2017 15:19
Ethylbenzene	U		10	44	µg/Kg-dry	1	4/17/2017 15:19
Methyl tert-butyl ether	U		14	44	µg/Kg-dry	1	4/17/2017 15:19
Methylene chloride	U		20	44	µg/Kg-dry	1	4/17/2017 15:19
Styrene	U		31	44	µg/Kg-dry	1	4/17/2017 15:19
Tetrachloroethene	U		22	44	µg/Kg-dry	1	4/17/2017 15:19
Toluene	U		15	44	µg/Kg-dry	1	4/17/2017 15:19
trans-1,2-Dichloroethene	U		12	44	µg/Kg-dry	1	4/17/2017 15:19
trans-1,3-Dichloropropene	U		7.9	44	µg/Kg-dry	1	4/17/2017 15:19
Trichloroethene	U		12	44	µg/Kg-dry	1	4/17/2017 15:19
Vinyl chloride	U		14	44	µg/Kg-dry	1	4/17/2017 15:19
Xylenes, Total	**240**		**34**	**130**	**µg/Kg-dry**	1	4/17/2017 15:19
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	4/17/2017 15:19
Surr: 4-Bromofluorobenzene	*100*			*70-130*	*%REC*	1	4/17/2017 15:19
Surr: Dibromofluoromethane	*96.0*			*70-130*	*%REC*	1	4/17/2017 15:19
Surr: Toluene-d8	*95.4*			*70-130*	*%REC*	1	4/17/2017 15:19

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**19**	**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 23 (0-2) - 041117
Collection Date: 4/11/2017 01:05 PM

Work Order: 1704626
Lab ID: 1704626-31
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		10	80	µg/Kg-dry	1	4/20/2017 12:43
Aroclor 1221	U		10	80	µg/Kg-dry	1	4/20/2017 12:43
Aroclor 1232	U		10	80	µg/Kg-dry	1	4/20/2017 12:43
Aroclor 1242	U		10	80	µg/Kg-dry	1	4/20/2017 12:43
Aroclor 1248	U		10	80	µg/Kg-dry	1	4/20/2017 12:43
Aroclor 1254	U		7.3	80	µg/Kg-dry	1	4/20/2017 12:43
Aroclor 1260	U		7.3	80	µg/Kg-dry	1	4/20/2017 12:43
Aroclor 1262	U		7.3	80	µg/Kg-dry	1	4/20/2017 12:43
Aroclor 1268	U		7.3	80	µg/Kg-dry	1	4/20/2017 12:43
Surr: Decachlorobiphenyl	*75.2*			*40-140*	*%REC*	1	4/20/2017 12:43
Surr: Tetrachloro-m-xylene	*75.7*			*45-124*	*%REC*	1	4/20/2017 12:43
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	U		2.6	12	µg/Kg-dry	1	4/18/2017 21:06
4,4´-DDE	U		2.3	12	µg/Kg-dry	1	4/18/2017 21:06
4,4´-DDT	U		1.9	12	µg/Kg-dry	1	4/18/2017 21:06
Aldrin	U		2.4	12	µg/Kg-dry	1	4/18/2017 21:06
alpha-BHC	U		2.3	12	µg/Kg-dry	1	4/18/2017 21:06
alpha-Chlordane	U		2.3	12	µg/Kg-dry	1	4/18/2017 21:06
beta-BHC	U		2.2	12	µg/Kg-dry	1	4/18/2017 21:06
Chlordane, Technical	U		12	30	µg/Kg-dry	1	4/18/2017 21:06
delta-BHC	U		6.2	12	µg/Kg-dry	1	4/18/2017 21:06
Dieldrin	U		2.3	12	µg/Kg-dry	1	4/18/2017 21:06
Endosulfan I	U		1.9	12	µg/Kg-dry	1	4/18/2017 21:06
Endosulfan II	U		2.3	12	µg/Kg-dry	1	4/18/2017 21:06
Endosulfan sulfate	U		2.5	12	µg/Kg-dry	1	4/18/2017 21:06
Endrin	U		2.5	12	µg/Kg-dry	1	4/18/2017 21:06
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/18/2017 21:06
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/18/2017 21:06
gamma-BHC (Lindane)	U		2.9	12	µg/Kg-dry	1	4/18/2017 21:06
gamma-Chlordane	U		2.7	12	µg/Kg-dry	1	4/18/2017 21:06
Heptachlor	U		3.4	12	µg/Kg-dry	1	4/18/2017 21:06
Heptachlor epoxide	U		2.2	12	µg/Kg-dry	1	4/18/2017 21:06
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/18/2017 21:06
Toxaphene	U		13	72	µg/Kg-dry	1	4/18/2017 21:06
Surr: Decachlorobiphenyl	*60.4*			*50-150*	*%REC*	1	4/18/2017 21:06
Surr: Tetrachloro-m-xylene	*74.5*			*50-150*	*%REC*	1	4/18/2017 21:06
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 23 (0-2) - 041117
Collection Date: 4/11/2017 01:05 PM

Work Order: 1704626
Lab ID: 1704626-31
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.043**		**0.0033**	**0.020**	**mg/Kg-dry**	1	4/19/2017 14:53
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**6.1**		**0.28**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:30
Barium	**67**		**0.26**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:30
Cadmium	U		0.015	0.75	mg/Kg-dry	4	4/19/2017 03:30
Chromium	**26**		**0.091**	**1.9**	**mg/Kg-dry**	4	4/19/2017 18:16
Lead	**56**		**0.030**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:30
Selenium	**1.8**	J	**0.57**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:30
Silver	**0.10**	J	**0.015**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:30
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RS**
2-Chloronaphthalene	U		5.7	8.1	µg/Kg-dry	1	4/18/2017 20:40
2-Methylnaphthalene	**140**		**4.1**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Acenaphthene	U		5.8	8.1	µg/Kg-dry	1	4/18/2017 20:40
Acenaphthylene	U		7.0	8.1	µg/Kg-dry	1	4/18/2017 20:40
Anthracene	U		5.7	8.1	µg/Kg-dry	1	4/18/2017 20:40
Benzo(a)anthracene	**44**		**7.0**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Benzo(a)pyrene	**36**		**5.0**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Benzo(b)fluoranthene	**51**		**6.0**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Benzo(g,h,i)perylene	**30**		**6.2**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Benzo(k)fluoranthene	**19**		**6.1**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Chrysene	**92**		**6.5**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Dibenzo(a,h)anthracene	**22**		**4.4**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Fluoranthene	**48**		**3.9**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Fluorene	U		5.9	8.1	µg/Kg-dry	1	4/18/2017 20:40
Indeno(1,2,3-cd)pyrene	**31**		**5.6**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Naphthalene	**150**		**5.2**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Phenanthrene	**49**		**3.8**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Pyrene	**98**		**1.5**	**8.1**	**µg/Kg-dry**	1	4/18/2017 20:40
Surr: 2-Fluorobiphenyl	*68.4*			*12-100*	*%REC*	1	4/18/2017 20:40
Surr: 4-Terphenyl-d14	*88.3*			*25-137*	*%REC*	1	4/18/2017 20:40
Surr: Nitrobenzene-d5	*58.0*			*37-107*	*%REC*	1	4/18/2017 20:40
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/14/17		Analyst: **AK**
1,1,1-Trichloroethane	U		12	43	µg/Kg-dry	1	4/17/2017 15:44
1,1,2,2-Tetrachloroethane	U		10	43	µg/Kg-dry	1	4/17/2017 15:44
1,1,2-Trichloroethane	U		13	43	µg/Kg-dry	1	4/17/2017 15:44
1,1-Dichloroethane	U		11	43	µg/Kg-dry	1	4/17/2017 15:44
1,1-Dichloroethene	U		12	43	µg/Kg-dry	1	4/17/2017 15:44
1,2-Dichloroethane	U		12	43	µg/Kg-dry	1	4/17/2017 15:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 23 (0-2) - 041117
Collection Date: 4/11/2017 01:05 PM

Work Order: 1704626
Lab ID: 1704626-31
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	43	µg/Kg-dry	1	4/17/2017 15:44
2-Butanone	U		58	290	µg/Kg-dry	1	4/17/2017 15:44
2-Hexanone	U		29	43	µg/Kg-dry	1	4/17/2017 15:44
4-Methyl-2-pentanone	U		32	43	µg/Kg-dry	1	4/17/2017 15:44
Acetone	U		78	140	µg/Kg-dry	1	4/17/2017 15:44
Benzene	U		9.8	43	µg/Kg-dry	1	4/17/2017 15:44
Bromodichloromethane	U		12	43	µg/Kg-dry	1	4/17/2017 15:44
Bromoform	U		15	43	µg/Kg-dry	1	4/17/2017 15:44
Bromomethane	U		19	110	µg/Kg-dry	1	4/17/2017 15:44
Carbon disulfide	U		15	43	µg/Kg-dry	1	4/17/2017 15:44
Carbon tetrachloride	U		7.7	43	µg/Kg-dry	1	4/17/2017 15:44
Chlorobenzene	U		13	43	µg/Kg-dry	1	4/17/2017 15:44
Chloroethane	U		27	140	µg/Kg-dry	1	4/17/2017 15:44
Chloroform	U		15	43	µg/Kg-dry	1	4/17/2017 15:44
cis-1,2-Dichloroethene	U		12	43	µg/Kg-dry	1	4/17/2017 15:44
cis-1,3-Dichloropropene	U		17	43	µg/Kg-dry	1	4/17/2017 15:44
Dibromochloromethane	U		9.8	43	µg/Kg-dry	1	4/17/2017 15:44
Ethylbenzene	**130**		**10**	**43**	**µg/Kg-dry**	1	4/17/2017 15:44
Methyl tert-butyl ether	U		14	43	µg/Kg-dry	1	4/17/2017 15:44
Methylene chloride	U		20	43	µg/Kg-dry	1	4/17/2017 15:44
Styrene	U		30	43	µg/Kg-dry	1	4/17/2017 15:44
Tetrachloroethene	U		21	43	µg/Kg-dry	1	4/17/2017 15:44
Toluene	U		14	43	µg/Kg-dry	1	4/17/2017 15:44
trans-1,2-Dichloroethene	U		12	43	µg/Kg-dry	1	4/17/2017 15:44
trans-1,3-Dichloropropene	U		7.7	43	µg/Kg-dry	1	4/17/2017 15:44
Trichloroethene	U		12	43	µg/Kg-dry	1	4/17/2017 15:44
Vinyl chloride	U		14	43	µg/Kg-dry	1	4/17/2017 15:44
Xylenes, Total	**250**		**33**	**130**	**µg/Kg-dry**	1	4/17/2017 15:44
Surr: 1,2-Dichloroethane-d4	*100*			*70-130*	*%REC*	1	4/17/2017 15:44
Surr: 4-Bromofluorobenzene	*108*			*70-130*	*%REC*	1	4/17/2017 15:44
Surr: Dibromofluoromethane	*96.3*			*70-130*	*%REC*	1	4/17/2017 15:44
Surr: Toluene-d8	*102*			*70-130*	*%REC*	1	4/17/2017 15:44
MOISTURE		Method:	**SW3550C**				Analyst: **EDL**
Moisture	**18**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 12:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 03 (8-10) - 041117
Collection Date: 4/11/2017 02:05 PM

Work Order: 1704626
Lab ID: 1704626-32
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/18/17		Analyst: **EB**
Aroclor 1016	U		11	83	µg/Kg-dry	1	4/20/2017 12:58
Aroclor 1221	U		11	83	µg/Kg-dry	1	4/20/2017 12:58
Aroclor 1232	U		11	83	µg/Kg-dry	1	4/20/2017 12:58
Aroclor 1242	U		11	83	µg/Kg-dry	1	4/20/2017 12:58
Aroclor 1248	U		11	83	µg/Kg-dry	1	4/20/2017 12:58
Aroclor 1254	**26**	J	**7.5**	**83**	**µg/Kg-dry**	1	4/20/2017 12:58
Aroclor 1260	U		7.5	83	µg/Kg-dry	1	4/20/2017 12:58
Aroclor 1262	U		7.5	83	µg/Kg-dry	1	4/20/2017 12:58
Aroclor 1268	U		7.5	83	µg/Kg-dry	1	4/20/2017 12:58
Surr: Decachlorobiphenyl	*35.2*	S		*40-140*	*%REC*	1	4/20/2017 12:58
Surr: Tetrachloro-m-xylene	*34.6*	S		*45-124*	*%REC*	1	4/20/2017 12:58
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/18/17		Analyst: **JF**
4,4´-DDD	**3.6**	J	**2.7**	**12**	**µg/Kg-dry**	1	4/18/2017 21:20
4,4´-DDE	U		2.4	12	µg/Kg-dry	1	4/18/2017 21:20
4,4´-DDT	**4.4**	J	**2.0**	**12**	**µg/Kg-dry**	1	4/18/2017 21:20
Aldrin	U		2.5	12	µg/Kg-dry	1	4/18/2017 21:20
alpha-BHC	U		2.4	12	µg/Kg-dry	1	4/18/2017 21:20
alpha-Chlordane	U		2.4	12	µg/Kg-dry	1	4/18/2017 21:20
beta-BHC	U		2.3	12	µg/Kg-dry	1	4/18/2017 21:20
Chlordane, Technical	U		12	31	µg/Kg-dry	1	4/18/2017 21:20
delta-BHC	U		6.4	12	µg/Kg-dry	1	4/18/2017 21:20
Dieldrin	U		2.4	12	µg/Kg-dry	1	4/18/2017 21:20
Endosulfan I	U		2.0	12	µg/Kg-dry	1	4/18/2017 21:20
Endosulfan II	U		2.4	12	µg/Kg-dry	1	4/18/2017 21:20
Endosulfan sulfate	U		2.6	12	µg/Kg-dry	1	4/18/2017 21:20
Endrin	U		2.6	12	µg/Kg-dry	1	4/18/2017 21:20
Endrin aldehyde	U		2.1	12	µg/Kg-dry	1	4/18/2017 21:20
Endrin ketone	U		2.3	12	µg/Kg-dry	1	4/18/2017 21:20
gamma-BHC (Lindane)	U		3.0	12	µg/Kg-dry	1	4/18/2017 21:20
gamma-Chlordane	U		2.8	12	µg/Kg-dry	1	4/18/2017 21:20
Heptachlor	U		3.5	12	µg/Kg-dry	1	4/18/2017 21:20
Heptachlor epoxide	U		2.3	12	µg/Kg-dry	1	4/18/2017 21:20
Methoxychlor	U		2.1	12	µg/Kg-dry	1	4/18/2017 21:20
Toxaphene	U		13	74	µg/Kg-dry	1	4/18/2017 21:20
Surr: Decachlorobiphenyl	*67.8*			*50-150*	*%REC*	1	4/18/2017 21:20
Surr: Tetrachloro-m-xylene	*77.1*			*50-150*	*%REC*	1	4/18/2017 21:20
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/17/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 03 (8-10) - 041117
Collection Date: 4/11/2017 02:05 PM

Work Order: 1704626
Lab ID: 1704626-32
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.11**		**0.0033**	**0.020**	**mg/Kg-dry**	1	4/19/2017 14:56
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/18/17		Analyst: **JF**
Arsenic	**4.7**		**0.28**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:36
Barium	**110**		**0.27**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:36
Cadmium	**0.18**	J	**0.015**	**0.76**	**mg/Kg-dry**	4	4/19/2017 03:36
Chromium	**31**		**0.091**	**1.9**	**mg/Kg-dry**	4	4/19/2017 18:22
Lead	**23**		**0.030**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:36
Selenium	**3.0**		**0.57**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:36
Silver	**0.14**	J	**0.015**	**1.9**	**mg/Kg-dry**	4	4/19/2017 03:36
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/18/17		Analyst: **RS**
2-Chloronaphthalene	U		5.8	8.3	µg/Kg-dry	1	4/18/2017 21:03
2-Methylnaphthalene	**170**		**4.2**	**8.3**	**µg/Kg-dry**	1	4/18/2017 21:03
Acenaphthene	U		6.0	8.3	µg/Kg-dry	1	4/18/2017 21:03
Acenaphthylene	U		7.2	8.3	µg/Kg-dry	1	4/18/2017 21:03
Anthracene	U		5.8	8.3	µg/Kg-dry	1	4/18/2017 21:03
Benzo(a)anthracene	U		7.1	8.3	µg/Kg-dry	1	4/18/2017 21:03
Benzo(a)pyrene	U		5.1	8.3	µg/Kg-dry	1	4/18/2017 21:03
Benzo(b)fluoranthene	U		6.2	8.3	µg/Kg-dry	1	4/18/2017 21:03
Benzo(g,h,i)perylene	U		6.3	8.3	µg/Kg-dry	1	4/18/2017 21:03
Benzo(k)fluoranthene	U		6.2	8.3	µg/Kg-dry	1	4/18/2017 21:03
Chrysene	U		6.7	8.3	µg/Kg-dry	1	4/18/2017 21:03
Dibenzo(a,h)anthracene	U		4.5	8.3	µg/Kg-dry	1	4/18/2017 21:03
Fluoranthene	U		4.0	8.3	µg/Kg-dry	1	4/18/2017 21:03
Fluorene	**30**		**6.0**	**8.3**	**µg/Kg-dry**	1	4/18/2017 21:03
Indeno(1,2,3-cd)pyrene	U		5.7	8.3	µg/Kg-dry	1	4/18/2017 21:03
Naphthalene	**25**		**5.3**	**8.3**	**µg/Kg-dry**	1	4/18/2017 21:03
Phenanthrene	**84**		**3.8**	**8.3**	**µg/Kg-dry**	1	4/18/2017 21:03
Pyrene	U		1.5	8.3	µg/Kg-dry	1	4/18/2017 21:03
Surr: 2-Fluorobiphenyl	*86.4*			*12-100*	*%REC*	1	4/18/2017 21:03
Surr: 4-Terphenyl-d14	*99.5*			*25-137*	*%REC*	1	4/18/2017 21:03
Surr: Nitrobenzene-d5	*74.2*			*37-107*	*%REC*	1	4/18/2017 21:03
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/14/17		Analyst: **AK**
1,1,1-Trichloroethane	U		13	46	µg/Kg-dry	1	4/18/2017 22:16
1,1,2,2-Tetrachloroethane	U		11	46	µg/Kg-dry	1	4/18/2017 22:16
1,1,2-Trichloroethane	U		14	46	µg/Kg-dry	1	4/18/2017 22:16
1,1-Dichloroethane	U		12	46	µg/Kg-dry	1	4/18/2017 22:16
1,1-Dichloroethene	U		12	46	µg/Kg-dry	1	4/18/2017 22:16
1,2-Dichloroethane	U		12	46	µg/Kg-dry	1	4/18/2017 22:16

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 03 (8-10) - 041117
Collection Date: 4/11/2017 02:05 PM

Work Order: 1704626
Lab ID: 1704626-32
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		13	46	µg/Kg-dry	1	4/18/2017 22:16
2-Butanone	U		62	310	µg/Kg-dry	1	4/18/2017 22:16
2-Hexanone	U		30	46	µg/Kg-dry	1	4/18/2017 22:16
4-Methyl-2-pentanone	U		34	46	µg/Kg-dry	1	4/18/2017 22:16
Acetone	U		83	150	µg/Kg-dry	1	4/18/2017 22:16
Benzene	U		10	46	µg/Kg-dry	1	4/18/2017 22:16
Bromodichloromethane	U		12	46	µg/Kg-dry	1	4/18/2017 22:16
Bromoform	U		16	46	µg/Kg-dry	1	4/18/2017 22:16
Bromomethane	U		20	110	µg/Kg-dry	1	4/18/2017 22:16
Carbon disulfide	U		16	46	µg/Kg-dry	1	4/18/2017 22:16
Carbon tetrachloride	U		8.1	46	µg/Kg-dry	1	4/18/2017 22:16
Chlorobenzene	U		14	46	µg/Kg-dry	1	4/18/2017 22:16
Chloroethane	U		29	150	µg/Kg-dry	1	4/18/2017 22:16
Chloroform	U		16	46	µg/Kg-dry	1	4/18/2017 22:16
cis-1,2-Dichloroethene	U		13	46	µg/Kg-dry	1	4/18/2017 22:16
cis-1,3-Dichloropropene	U		18	46	µg/Kg-dry	1	4/18/2017 22:16
Dibromochloromethane	U		10	46	µg/Kg-dry	1	4/18/2017 22:16
Ethylbenzene	U		11	46	µg/Kg-dry	1	4/18/2017 22:16
Methyl tert-butyl ether	U		15	46	µg/Kg-dry	1	4/18/2017 22:16
Methylene chloride	U		21	46	µg/Kg-dry	1	4/18/2017 22:16
Styrene	U		32	46	µg/Kg-dry	1	4/18/2017 22:16
Tetrachloroethene	**79**		**23**	**46**	**µg/Kg-dry**	1	4/18/2017 22:16
Toluene	U		15	46	µg/Kg-dry	1	4/18/2017 22:16
trans-1,2-Dichloroethene	U		13	46	µg/Kg-dry	1	4/18/2017 22:16
trans-1,3-Dichloropropene	U		8.2	46	µg/Kg-dry	1	4/18/2017 22:16
Trichloroethene	U		12	46	µg/Kg-dry	1	4/18/2017 22:16
Vinyl chloride	U		15	46	µg/Kg-dry	1	4/18/2017 22:16
Xylenes, Total	U		36	140	µg/Kg-dry	1	4/18/2017 22:16
Surr: 1,2-Dichloroethane-d4	*102*			*70-130*	*%REC*	1	4/18/2017 22:16
Surr: 4-Bromofluorobenzene	*129*			*70-130*	*%REC*	1	4/18/2017 22:16
Surr: Dibromofluoromethane	*91.5*			*70-130*	*%REC*	1	4/18/2017 22:16
Surr: Toluene-d8	*99.7*			*70-130*	*%REC*	1	4/18/2017 22:16

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**21**		**0.025**	**0.050**	**% of sample**	1	4/14/2017 14:11

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB 03 (12-14) - 041117
Collection Date: 4/11/2017 02:00 PM

Work Order: 1704626
Lab ID: 1704626-33
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PARTICLE-SIZE ANALYSIS OF SOILS		Method: **D422**					Analyst: **LR**
3 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
1.5 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
0.75 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
0.375 Inch Sieve	**100**		**0**		**% Passing**	1	4/20/2017
No. 4 Sieve (4.75 mm)	**100**		**0**		**% Passing**	1	4/20/2017
No. 10 Sieve (2.00 mm)	**99.4**		**0**		**% Passing**	1	4/20/2017
No. 16 Sieve (1.18 mm)	**99.2**		**0**		**% Passing**	1	4/20/2017
No. 30 Sieve (0.60 mm)	**98.8**		**0**		**% Passing**	1	4/20/2017
No. 50 Sieve (0.30 mm)	**97.7**		**0**		**% Passing**	1	4/20/2017
No. 60 Sieve (0.25 mm)	**96.4**		**0**		**% Passing**	1	4/20/2017
No. 100 Sieve (0.15 mm)	**84.3**		**0**		**% Passing**	1	4/20/2017
No. 200 Sieve (0.075 mm)	**69.2**		**0**		**% Passing**	1	4/20/2017
0.030 mm (Hydrometer)	**66.0**		**0**		**% Passing**	1	4/20/2017
0.005 mm (Hydrometer)	**37.0**		**0**		**% Passing**	1	4/20/2017
0.0015 mm (Hydrometer)	**29.0**		**0**		**% Passing**	1	4/20/2017
% Gravel	**0.561**		**0**		**% Passing**	1	4/20/2017
% Sand	**30.2**		**0**		**% Passing**	1	4/20/2017
% Silt, Clay, Colloids	**69.2**		**0**		**% Passing**	1	4/20/2017

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: Trip Blank
Collection Date: 4/11/2017

Work Order: 1704626
Lab ID: 1704626-34
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **EMR**
1,1,1-Trichloroethane	U		0.15	5.0	µg/Kg	1	4/17/2017 15:31
1,1,2,2-Tetrachloroethane	U		0.12	5.0	µg/Kg	1	4/17/2017 15:31
1,1,2-Trichloroethane	U		0.62	5.0	µg/Kg	1	4/17/2017 15:31
1,1-Dichloroethane	U		0.13	5.0	µg/Kg	1	4/17/2017 15:31
1,1-Dichloroethene	U		0.17	5.0	µg/Kg	1	4/17/2017 15:31
1,2-Dichloroethane	U		0.15	5.0	µg/Kg	1	4/17/2017 15:31
1,2-Dichloropropane	U		0.36	5.0	µg/Kg	1	4/17/2017 15:31
2-Butanone	U		0.85	10	µg/Kg	1	4/17/2017 15:31
2-Hexanone	U		0.67	5.0	µg/Kg	1	4/17/2017 15:31
4-Methyl-2-pentanone	U		0.18	5.0	µg/Kg	1	4/17/2017 15:31
Acetone	U		1.5	10	µg/Kg	1	4/17/2017 15:31
Benzene	U		0.097	5.0	µg/Kg	1	4/17/2017 15:31
Bromodichloromethane	U		0.11	5.0	µg/Kg	1	4/17/2017 15:31
Bromoform	U		0.15	5.0	µg/Kg	1	4/17/2017 15:31
Bromomethane	U		0.31	10	µg/Kg	1	4/17/2017 15:31
Carbon disulfide	U		0.19	5.0	µg/Kg	1	4/17/2017 15:31
Carbon tetrachloride	U		0.24	5.0	µg/Kg	1	4/17/2017 15:31
Chlorobenzene	U		0.16	5.0	µg/Kg	1	4/17/2017 15:31
Chloroethane	U		0.52	5.0	µg/Kg	1	4/17/2017 15:31
Chloroform	U		0.20	5.0	µg/Kg	1	4/17/2017 15:31
Chloromethane	U		0.26	10	µg/Kg	1	4/17/2017 15:31
cis-1,2-Dichloroethene	U		0.12	5.0	µg/Kg	1	4/17/2017 15:31
cis-1,3-Dichloropropene	U		0.12	5.0	µg/Kg	1	4/17/2017 15:31
Dibromochloromethane	U		0.15	5.0	µg/Kg	1	4/17/2017 15:31
Ethylbenzene	U		0.12	5.0	µg/Kg	1	4/17/2017 15:31
Methyl tert-butyl ether	U		0.18	5.0	µg/Kg	1	4/17/2017 15:31
Methylene chloride	U		0.14	5.0	µg/Kg	1	4/17/2017 15:31
Styrene	U		0.30	5.0	µg/Kg	1	4/17/2017 15:31
Tetrachloroethene	U		0.22	5.0	µg/Kg	1	4/17/2017 15:31
Toluene	**0.42**	J	**0.12**	**5.0**	**µg/Kg**	1	4/17/2017 15:31
trans-1,2-Dichloroethene	U		0.23	5.0	µg/Kg	1	4/17/2017 15:31
trans-1,3-Dichloropropene	U		0.16	5.0	µg/Kg	1	4/17/2017 15:31
Trichloroethene	U		0.19	5.0	µg/Kg	1	4/17/2017 15:31
Vinyl chloride	U		0.17	5.0	µg/Kg	1	4/17/2017 15:31
Xylenes, Total	U		0.54	5.0	µg/Kg	1	4/17/2017 15:31
Surr: 1,2-Dichloroethane-d4	*116*			*70-120*	*%REC*	1	4/17/2017 15:31
Surr: 4-Bromofluorobenzene	*102*			*75-120*	*%REC*	1	4/17/2017 15:31
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	1	4/17/2017 15:31

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: Trip Blank
Collection Date: 4/11/2017

Work Order: 1704626
Lab ID: 1704626-34
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	*98.0*			*85-120*	*%REC*	1	4/17/2017 15:31

Note: See Qualifiers page for a list of qualifiers and their definitions.

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
% Passing	Percent Passing
µg/Kg	Micrograms per Kilogram
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group, USA

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

Date: 21-Apr-17

QC BATCH REPORT

Batch ID: **100663** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-100663-100663** Units: **µg/Kg** Analysis Date: **4/17/2017 05:32 PM**

Client ID: Run ID: **GC14_170417A** SeqNo: **4381746** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	67								
Aroclor 1221	U	67								
Aroclor 1232	U	67								
Aroclor 1242	U	67								
Aroclor 1248	U	67								
Aroclor 1254	U	67								
Aroclor 1260	U	67								
Aroclor 1262	U	67								
Aroclor 1268	U	67								
Surr: Decachlorobiphenyl	*30*	0	*33.3*	0	*90.1*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*28.8*	0	*33.3*	0	*86.5*	*45-124*	0			

LCS Sample ID: **PLCSS1-100663-100663** Units: **µg/Kg** Analysis Date: **4/17/2017 05:46 PM**

Client ID: Run ID: **GC14_170417A** SeqNo: **4381747** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	567.7	67	833	0	68.2	50-130	0			
Aroclor 1260	547.5	67	833	0	65.7	50-130	0			
Surr: Decachlorobiphenyl	*26.1*	0	*33.3*	0	*78.4*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*21.4*	0	*33.3*	0	*64.2*	*45-124*	0			

MS Sample ID: **1704624-10B MS** Units: **µg/Kg** Analysis Date: **4/17/2017 06:15 PM**

Client ID: Run ID: **GC14_170417A** SeqNo: **4381749** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	578.2	66	823.8	0	70.2	40-140	0			
Aroclor 1260	550.9	66	823.8	0	66.9	40-140	0			
Surr: Decachlorobiphenyl	*20.21*	0	*32.93*	0	*61.4*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*19.88*	0	*32.93*	0	*60.4*	*45-124*	0			

MSD Sample ID: **1704624-10B MSD** Units: **µg/Kg** Analysis Date: **4/17/2017 06:29 PM**

Client ID: Run ID: **GC14_170417A** SeqNo: **4381750** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	571.5	66	823.9	0	69.4	40-140	578.2	1.16	50	
Aroclor 1260	467.9	66	823.9	0	56.8	40-140	550.9	16.3	50	
Surr: Decachlorobiphenyl	*18.68*	0	*32.94*	0	*56.7*	*40-140*	20.21	*7.88*	*50*	
Surr: Tetrachloro-m-xylene	*20.09*	0	*32.94*	0	*61*	*45-124*	19.88	*1.04*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100663** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

1704626-01B	1704626-02B	1704626-03B
1704626-04B	1704626-05B	1704626-06B
1704626-07B	1704626-08B	1704626-09B
1704626-10B	1704626-11B	1704626-12B
1704626-13B	1704626-14B	1704626-15B
1704626-16B	1704626-17B	1704626-18B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100664** Instrument ID **GC12** Method: **SW8081A**

MBLK	Sample ID: **PBLKS1-100664-100664**	Units: **µg/Kg**	Analysis Date: **4/17/2017 05:04 PM**
Client ID:	Run ID: **GC12_170417A**	SeqNo: **4381204** Prep Date: **4/17/2017**	DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	U	10								
4,4´-DDE	U	10								
4,4´-DDT	U	10								
Aldrin	U	10								
alpha-BHC	U	10								
alpha-Chlordane	U	10								
beta-BHC	U	10								
Chlordane, Technical	U	25								
delta-BHC	U	10								
Dieldrin	U	10								
Endosulfan I	U	10								
Endosulfan II	U	10								
Endosulfan sulfate	U	10								
Endrin	U	10								
Endrin aldehyde	U	10								
Endrin ketone	U	10								
gamma-BHC (Lindane)	U	10								
gamma-Chlordane	U	10								
Heptachlor	U	10								
Heptachlor epoxide	U	10								
Methoxychlor	U	10								
Toxaphene	U	60								
Surr: Decachlorobiphenyl	*32.97*	0	*33.3*	0	*99*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*31.34*	0	*33.3*	0	*94.1*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100664** Instrument ID **GC12** Method: **SW8081A**

LCS Sample ID: **PLCSS1-100664-100664** Units: **µg/Kg** Analysis Date: **4/17/2017 05:17 PM**

Client ID: Run ID: **GC12_170417A** SeqNo: **4381205** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	34.51	10	33.33	0	104	50-150	0			
4,4´-DDE	34.29	10	33.33	0	103	50-150	0			
4,4´-DDT	36.19	10	33.33	0	109	50-150	0			
Aldrin	34	10	33.33	0	102	50-150	0			
alpha-BHC	35.79	10	33.33	0	107	50-150	0			
alpha-Chlordane	33.01	10	33.33	0	99	50-150	0			
beta-BHC	32.03	10	33.33	0	96.1	50-150	0			
delta-BHC	36.19	10	33.33	0	109	50-150	0			
Dieldrin	33.95	10	33.33	0	102	50-150	0			
Endosulfan I	33.03	10	33.33	0	99.1	50-150	0			
Endosulfan II	32.39	10	33.33	0	97.2	50-150	0			
Endosulfan sulfate	34.82	10	33.33	0	104	50-150	0			
Endrin	37.44	10	33.33	0	112	50-150	0			
Endrin aldehyde	28.52	10	33.33	0	85.6	50-150	0			
Endrin ketone	32.16	10	33.33	0	96.5	50-150	0			
gamma-BHC (Lindane)	35.12	10	33.33	0	105	50-150	0			
gamma-Chlordane	33.56	10	33.33	0	101	50-150	0			
Heptachlor	36.2	10	33.33	0	109	50-150	0			
Heptachlor epoxide	33.6	10	33.33	0	101	50-150	0			
Methoxychlor	31.78	10	33.33	0	95.4	50-150	0			
Surr: Decachlorobiphenyl	*31.86*	0	*33.3*	0	*95.7*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*30.89*	0	*33.3*	0	*92.8*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100664** Instrument ID **GC12** Method: **SW8081A**

MS Sample ID: **1704626-11B MS** Units: **µg/Kg** Analysis Date: **4/17/2017 05:44 PM**

Client ID: **TDSB 28 (2-4) - 041017** Run ID: **GC12_170417A** SeqNo: **4381207** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	30.57	9.5	31.65	0	96.6	50-150	0			
4,4´-DDE	28.84	9.5	31.65	0	91.1	50-150	0			
4,4´-DDT	29.85	9.5	31.65	0	94.3	50-150	0			
Aldrin	29.63	9.5	31.65	0	93.6	50-150	0			
alpha-BHC	32.62	9.5	31.65	0	103	50-150	0			
alpha-Chlordane	26.6	9.5	31.65	0	84.1	50-150	0			
beta-BHC	30.56	9.5	31.65	0	96.6	50-150	0			
delta-BHC	35.33	9.5	31.65	0	112	50-150	0			
Dieldrin	30.46	9.5	31.65	0	96.3	50-150	0			
Endosulfan I	28.49	9.5	31.65	0	90	50-150	0			
Endosulfan II	29.38	9.5	31.65	0	92.8	50-150	0			
Endosulfan sulfate	29.97	9.5	31.65	0	94.7	50-150	0			
Endrin	33.97	9.5	31.65	0	107	50-150	0			
Endrin aldehyde	20.96	9.5	31.65	0	66.2	50-150	0			
Endrin ketone	27.76	9.5	31.65	0.405	86.4	50-150	0			
gamma-BHC (Lindane)	32.49	9.5	31.65	0	103	50-150	0			
gamma-Chlordane	25.82	9.5	31.65	0	81.6	50-150	0			
Heptachlor	28.84	9.5	31.65	0	91.1	50-150	0			
Heptachlor epoxide	28.55	9.5	31.65	0	90.2	50-150	0			
Methoxychlor	26.19	9.5	31.65	0	82.8	50-150	0			
Surr: Decachlorobiphenyl	*35.51*	0	*31.62*	0	*112*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*25.74*	0	*31.62*	0	*81.4*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100664** Instrument ID **GC12** Method: **SW8081A**

MSD Sample ID: **1704626-11B MSD** Units: **µg/Kg** Analysis Date: **4/17/2017 05:57 PM**

Client ID: **TDSB 28 (2-4) - 041017** Run ID: **GC12_170417A** SeqNo: **4381208** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	29.9	9.6	32.14	0	93	50-150	30.57	2.24	35	
4,4´-DDE	28.59	9.6	32.14	0	89	50-150	28.84	0.853	35	
4,4´-DDT	28.5	9.6	32.14	0	88.7	50-150	29.85	4.62	35	
Aldrin	29.3	9.6	32.14	0	91.2	50-150	29.63	1.12	35	
alpha-BHC	31.1	9.6	32.14	0	96.8	50-150	32.62	4.78	35	
alpha-Chlordane	26.39	9.6	32.14	0	82.1	50-150	26.6	0.778	35	
beta-BHC	27.4	9.6	32.14	0	85.2	50-150	30.56	10.9	35	
delta-BHC	35.35	9.6	32.14	0	110	50-150	35.33	0.0465	35	
Dieldrin	29.3	9.6	32.14	0	91.2	50-150	30.46	3.89	35	
Endosulfan I	28.15	9.6	32.14	0	87.6	50-150	28.49	1.22	35	
Endosulfan II	28.13	9.6	32.14	0	87.5	50-150	29.38	4.35	35	
Endosulfan sulfate	29.18	9.6	32.14	0	90.8	50-150	29.97	2.66	35	
Endrin	32.84	9.6	32.14	0	102	50-150	33.97	3.4	35	
Endrin aldehyde	20.93	9.6	32.14	0	65.1	50-150	20.96	0.127	35	
Endrin ketone	27.31	9.6	32.14	0.405	83.7	50-150	27.76	1.62	35	
gamma-BHC (Lindane)	30.95	9.6	32.14	0	96.3	50-150	32.49	4.84	35	
gamma-Chlordane	25.65	9.6	32.14	0	79.8	50-150	25.82	0.643	35	
Heptachlor	29.2	9.6	32.14	0	90.9	50-150	28.84	1.25	35	
Heptachlor epoxide	28.23	9.6	32.14	0	87.8	50-150	28.55	1.11	35	
Methoxychlor	25.76	9.6	32.14	0	80.1	50-150	26.19	1.66	35	
Surr: Decachlorobiphenyl	*28.93*	0	*32.12*	0	*90.1*	*50-150*	35.51	*20.4*	*35*	
Surr: Tetrachloro-m-xylene	*25.45*	0	*32.12*	0	*79.3*	*50-150*	25.74	*1.12*	*35*	

The following samples were analyzed in this batch:

1704626-01B	1704626-02B	1704626-03B
1704626-04B	1704626-05B	1704626-06B
1704626-07B	1704626-08B	1704626-09B
1704626-10B	1704626-11B	1704626-12B
1704626-13B	1704626-14B	1704626-15B
1704626-16B	1704626-17B	1704626-18B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100736** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-100736-100736** Units: **µg/Kg** Analysis Date: **4/19/2017 09:47 AM**

Client ID: Run ID: **GC14_170419A** SeqNo: **4385355** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	67								
Aroclor 1221	U	67								
Aroclor 1232	U	67								
Aroclor 1242	U	67								
Aroclor 1248	U	67								
Aroclor 1254	U	67								
Aroclor 1260	U	67								
Aroclor 1262	U	67								
Aroclor 1268	U	67								
Surr: Decachlorobiphenyl	*34.42*	0	*33.3*	0	*103*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*26.97*	0	*33.3*	0	*81*	*45-124*	0			

LCS Sample ID: **PLCSS1-100736-100736** Units: **µg/Kg** Analysis Date: **4/19/2017 10:02 AM**

Client ID: Run ID: **GC14_170419A** SeqNo: **4385356** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	437	67	833	0	52.5	50-130	0			
Aroclor 1260	458.4	67	833	0	55	50-130	0			
Surr: Decachlorobiphenyl	*28.92*	0	*33.3*	0	*86.8*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*17.96*	0	*33.3*	0	*53.9*	*45-124*	0			

MS Sample ID: **1704868-02B MS** Units: **µg/Kg** Analysis Date: **4/19/2017 10:30 AM**

Client ID: Run ID: **GC14_170419A** SeqNo: **4385358** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	623.7	65	813.9	0	76.6	40-140	0			
Aroclor 1260	705.9	65	813.9	0	86.7	40-140	0			
Surr: Decachlorobiphenyl	*31.62*	0	*32.54*	0	*97.2*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*19.81*	0	*32.54*	0	*60.9*	*45-124*	0			

MSD Sample ID: **1704868-02B MSD** Units: **µg/Kg** Analysis Date: **4/19/2017 10:45 AM**

Client ID: Run ID: **GC14_170419A** SeqNo: **4385359** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	640.8	65	816.5	0	78.5	40-140	623.7	2.72	50	
Aroclor 1260	723.7	65	816.5	0	88.6	40-140	705.9	2.48	50	
Surr: Decachlorobiphenyl	*31.61*	0	*32.64*	0	*96.8*	*40-140*	31.62	*0.0415*	*50*	
Surr: Tetrachloro-m-xylene	*22.55*	0	*32.64*	0	*69.1*	*45-124*	19.81	*12.9*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100736** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

1704626-19B	1704626-20B	1704626-21B
1704626-23B	1704626-24B	1704626-25B
1704626-26B	1704626-28B	1704626-29B
1704626-30B	1704626-31B	1704626-32B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100737** Instrument ID **GC12** Method: **SW8081A**

MBLK Sample ID: **PBLKS1-100737-100737** Units: **µg/Kg** Analysis Date: **4/18/2017 05:07 PM**

Client ID: Run ID: **GC12_170418A** SeqNo: **4384912** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	U	10								
4,4´-DDE	U	10								
4,4´-DDT	U	10								
Aldrin	U	10								
alpha-BHC	U	10								
alpha-Chlordane	U	10								
beta-BHC	U	10								
Chlordane, Technical	U	25								
delta-BHC	U	10								
Dieldrin	U	10								
Endosulfan I	U	10								
Endosulfan II	U	10								
Endosulfan sulfate	U	10								
Endrin	U	10								
Endrin aldehyde	U	10								
Endrin ketone	U	10								
gamma-BHC (Lindane)	U	10								
gamma-Chlordane	U	10								
Heptachlor	U	10								
Heptachlor epoxide	U	10								
Methoxychlor	U	10								
Toxaphene	U	60								
Surr: Decachlorobiphenyl	*30.53*	0	*33.3*	0	*91.7*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*31.76*	0	*33.3*	0	*95.4*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100737** Instrument ID **GC12** Method: **SW8081A**

LCS Sample ID: **PLCSS1-100737-100737** Units: **µg/Kg** Analysis Date: **4/18/2017 05:20 PM**

Client ID: Run ID: **GC12_170418A** SeqNo: **4384913** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	33.7	10	33.33	0	101	50-150	0			
4,4´-DDE	33.5	10	33.33	0	101	50-150	0			
4,4´-DDT	33.95	10	33.33	0	102	50-150	0			
Aldrin	33.35	10	33.33	0	100	50-150	0			
alpha-BHC	34.16	10	33.33	0	102	50-150	0			
alpha-Chlordane	32.18	10	33.33	0	96.5	50-150	0			
beta-BHC	30.73	10	33.33	0	92.2	50-150	0			
delta-BHC	33.35	10	33.33	0	100	50-150	0			
Dieldrin	33.75	10	33.33	0	101	50-150	0			
Endosulfan I	32.39	10	33.33	0	97.2	50-150	0			
Endosulfan II	31.74	10	33.33	0	95.2	50-150	0			
Endosulfan sulfate	30.6	10	33.33	0	91.8	50-150	0			
Endrin	33.63	10	33.33	0	101	50-150	0			
Endrin aldehyde	29.74	10	33.33	0	89.2	50-150	0			
Endrin ketone	31.36	10	33.33	0	94.1	50-150	0			
gamma-BHC (Lindane)	33.75	10	33.33	0	101	50-150	0			
gamma-Chlordane	32.72	10	33.33	0	98.2	50-150	0			
Heptachlor	33.7	10	33.33	0	101	50-150	0			
Heptachlor epoxide	32.39	10	33.33	0	97.2	50-150	0			
Methoxychlor	32.4	10	33.33	0	97.2	50-150	0			
Surr: Decachlorobiphenyl	*27.86*	0	*33.3*	0	*83.7*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*30.67*	0	*33.3*	0	*92.1*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100737** Instrument ID **GC12** Method: **SW8081A**

MS Sample ID: **1704868-02B MS** Units: **µg/Kg** Analysis Date: **4/18/2017 05:48 PM**

Client ID: Run ID: **GC12_170418A** SeqNo: **4384915** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	26.76	9.9	33.04	0	81	50-150	0			
4,4´-DDE	26.08	9.9	33.04	0	78.9	50-150	0			
4,4´-DDT	26.57	9.9	33.04	0	80.4	50-150	0			
Aldrin	25.93	9.9	33.04	0	78.5	50-150	0			
alpha-BHC	26.7	9.9	33.04	0	80.8	50-150	0			
alpha-Chlordane	25.28	9.9	33.04	0	76.5	50-150	0			
beta-BHC	24.14	9.9	33.04	0	73.1	50-150	0			
delta-BHC	26.53	9.9	33.04	0	80.3	50-150	0			
Dieldrin	25.44	9.9	33.04	0	77	50-150	0			
Endosulfan I	25.34	9.9	33.04	0	76.7	50-150	0			
Endosulfan II	25.36	9.9	33.04	0	76.7	50-150	0			
Endosulfan sulfate	26.24	9.9	33.04	0	79.4	50-150	0			
Endrin	26.42	9.9	33.04	0	79.9	50-150	0			
Endrin aldehyde	23.35	9.9	33.04	0	70.7	50-150	0			
Endrin ketone	25.84	9.9	33.04	0	78.2	50-150	0			
gamma-BHC (Lindane)	26.45	9.9	33.04	0	80.1	50-150	0			
gamma-Chlordane	25.69	9.9	33.04	0	77.8	50-150	0			
Heptachlor	26.49	9.9	33.04	0	80.2	50-150	0			
Heptachlor epoxide	25.49	9.9	33.04	0	77.1	50-150	0			
Methoxychlor	25.94	9.9	33.04	0	78.5	50-150	0			
Surr: Decachlorobiphenyl	*21.62*	0	*33.01*	0	*65.5*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*22.03*	0	*33.01*	0	*66.7*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100737** Instrument ID **GC12** Method: **SW8081A**

MSD Sample ID: **1704868-02B MSD** Units: **µg/Kg** Analysis Date: **4/18/2017 06:02 PM**

Client ID: Run ID: **GC12_170418A** SeqNo: **4384916** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	23.74	9.8	32.77	0	72.5	50-150	26.76	11.9	35	
4,4´-DDE	23.17	9.8	32.77	0	70.7	50-150	26.08	11.8	35	
4,4´-DDT	23.61	9.8	32.77	0	72.1	50-150	26.57	11.8	35	
Aldrin	23.17	9.8	32.77	0	70.7	50-150	25.93	11.2	35	
alpha-BHC	23.72	9.8	32.77	0	72.4	50-150	26.7	11.8	35	
alpha-Chlordane	22.44	9.8	32.77	0	68.5	50-150	25.28	11.9	35	
beta-BHC	21.44	9.8	32.77	0	65.4	50-150	24.14	11.9	35	
delta-BHC	23.61	9.8	32.77	0	72.1	50-150	26.53	11.6	35	
Dieldrin	23.42	9.8	32.77	0	71.5	50-150	25.44	8.27	35	
Endosulfan I	22.53	9.8	32.77	0	68.8	50-150	25.34	11.7	35	
Endosulfan II	22.71	9.8	32.77	0	69.3	50-150	25.36	11	35	
Endosulfan sulfate	23.18	9.8	32.77	0	70.7	50-150	26.24	12.4	35	
Endrin	23.67	9.8	32.77	0	72.2	50-150	26.42	11	35	
Endrin aldehyde	20.86	9.8	32.77	0	63.7	50-150	23.35	11.3	35	
Endrin ketone	23.24	9.8	32.77	0	70.9	50-150	25.84	10.6	35	
gamma-BHC (Lindane)	23.48	9.8	32.77	0	71.6	50-150	26.45	11.9	35	
gamma-Chlordane	22.6	9.8	32.77	0	69	50-150	25.69	12.8	35	
Heptachlor	23.68	9.8	32.77	0	72.3	50-150	26.49	11.2	35	
Heptachlor epoxide	22.72	9.8	32.77	0	69.3	50-150	25.49	11.5	35	
Methoxychlor	23.18	9.8	32.77	0	70.7	50-150	25.94	11.3	35	
Surr: Decachlorobiphenyl	*19.34*	0	*32.74*	0	*59.1*	*50-150*	21.62	*11.2*	*35*	
Surr: Tetrachloro-m-xylene	*20.4*	0	*32.74*	0	*62.3*	*50-150*	22.03	*7.69*	*35*	

The following samples were analyzed in this batch:

1704626-19B	1704626-20B	1704626-21B
1704626-23B	1704626-24B	1704626-25B
1704626-26B	1704626-28B	1704626-29B
1704626-30B	1704626-31B	1704626-32B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100703** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-100703-100703** Units: **mg/Kg** Analysis Date: **4/18/2017 05:45 PM**

Client ID: Run ID: **HG1_170418A** SeqNo: **4383131** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.020								

LCS Sample ID: **LCS-100703-100703** Units: **mg/Kg** Analysis Date: **4/18/2017 05:56 PM**

Client ID: Run ID: **HG1_170418A** SeqNo: **4383132** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.18	0.020	0.1665	0	108	80-120		0		

MS Sample ID: **1704647-06AMS** Units: **mg/Kg** Analysis Date: **4/18/2017 06:06 PM**

Client ID: Run ID: **HG1_170418A** SeqNo: **4383136** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1564	0.015	0.1286	0.02664	101	75-125		0		

MSD Sample ID: **1704647-06AMSD** Units: **mg/Kg** Analysis Date: **4/18/2017 06:09 PM**

Client ID: Run ID: **HG1_170418A** SeqNo: **4383137** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1607	0.016	0.1367	0.02664	98.1	75-125	0.1564	2.75	35	

The following samples were analyzed in this batch:

1704626-01B	1704626-02B	1704626-03B
1704626-04B	1704626-05B	1704626-06B
1704626-07B	1704626-08B	1704626-09B
1704626-10B	1704626-11B	1704626-12B
1704626-13B	1704626-14B	1704626-15B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100717** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-100717-100717** Units: **mg/Kg** Analysis Date: **4/19/2017 01:31 PM**

Client ID: Run ID: **HG1_170419A** SeqNo: **4385277** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.020								

LCS Sample ID: **LCS-100717-100717** Units: **mg/Kg** Analysis Date: **4/19/2017 01:41 PM**

Client ID: Run ID: **HG1_170419A** SeqNo: **4385278** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1875	0.020	0.1665	0	113	80-120	0			

MS Sample ID: **1704626-25BMS** Units: **mg/Kg** Analysis Date: **4/19/2017 02:28 PM**

Client ID: **TDSB 24 (4-6) - DUP - 041117** Run ID: **HG1_170419A** SeqNo: **4385327** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.227	0.014	0.1151	0.1147	97.6	75-125	0			

MSD Sample ID: **1704626-25BMSD** Units: **mg/Kg** Analysis Date: **4/19/2017 02:37 PM**

Client ID: **TDSB 24 (4-6) - DUP - 041117** Run ID: **HG1_170419A** SeqNo: **4385329** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.2358	0.015	0.1211	0.1147	100	75-125	0.227	3.8	35	

The following samples were analyzed in this batch:

1704626-16B	1704626-17B	1704626-18B
1704626-19B	1704626-20B	1704626-21B
1704626-23B	1704626-24B	1704626-25B
1704626-26B	1704626-28B	1704626-29B
1704626-30B	1704626-31B	1704626-32B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100690** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-100690-100690** Units: **mg/Kg** Analysis Date: **4/19/2017 10:21 AM**

Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4385175** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Barium	U	0.25								
Cadmium	0.003002	0.10								J
Chromium	0.02052	0.25								J
Lead	U	0.25								
Selenium	U	0.25								
Silver	0.002816	0.25								J

LCS Sample ID: **LCS-100690-100690** Units: **mg/Kg** Analysis Date: **4/19/2017 10:27 AM**

Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4385176** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.662	0.25	5	0	93.2	80-120	0			
Barium	5.565	0.25	5	0	111	80-120	0			
Cadmium	4.994	0.10	5	0	99.9	80-120	0			
Chromium	5.4	0.25	5	0	108	80-120	0			
Lead	5.77	0.25	5	0	115	80-120	0			
Selenium	4.131	0.25	5	0	82.6	80-120	0			
Silver	5.555	0.25	5	0	111	80-120	0			

MS Sample ID: **1704600-15BMS** Units: **mg/Kg** Analysis Date: **4/19/2017 01:20 PM**

Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4385203** Prep Date: **4/17/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.7	1.6	8.026	7.312	104	75-125	0			
Barium	38.43	1.6	8.026	26.29	151	75-125	0			S
Cadmium	9.037	0.64	8.026	0.9704	101	75-125	0			
Chromium	18.83	1.6	8.026	9.548	116	75-125	0			
Lead	268.7	1.6	8.026	238.5	376	75-125	0			SO
Selenium	8.215	1.6	8.026	0.7796	92.6	75-125	0			
Silver	8.648	1.6	8.026	0.1054	106	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100690** Instrument ID **ICPMS1** Method: **SW6020A**

MSD Sample ID: **1704600-15BMSD** Units: **mg/Kg** Analysis Date: **4/19/2017 01:26 PM**

Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4385204** Prep Date: **4/17/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	16	1.6	8	7.312	109	75-125	15.7	1.9	20	
Barium	38.75	1.6	8	26.29	156	75-125	38.43	0.842	20	S
Cadmium	9.261	0.64	8	0.9704	104	75-125	9.037	2.45	20	
Chromium	19.98	1.6	8	9.548	130	75-125	18.83	5.89	20	S
Lead	252.5	1.6	8	238.5	175	75-125	268.7	6.22	20	SO
Selenium	8.224	1.6	8	0.7796	93.1	75-125	8.215	0.108	20	
Silver	8.71	1.6	8	0.1054	108	75-125	8.648	0.713	20	

The following samples were analyzed in this batch: 1704626-01B 1704626-02B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100767** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-100767-100767** Units: **mg/Kg** Analysis Date: **4/18/2017 10:38 PM**

Client ID: Run ID: **ICPMS1_170418A** SeqNo: **4383399** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Barium	U	0.25								
Cadmium	U	0.10								
Chromium	U	0.25								
Lead	U	0.25								
Silver	U	0.25								

LCS Sample ID: **LCS-100767-100767** Units: **mg/Kg** Analysis Date: **4/18/2017 10:44 PM**

Client ID: Run ID: **ICPMS1_170418A** SeqNo: **4383400** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.379	0.25	5	0	87.6	80-120	0			
Barium	5.47	0.25	5	0	109	80-120	0			
Cadmium	4.926	0.10	5	0	98.5	80-120	0			
Chromium	4.986	0.25	5	0	99.7	80-120	0			
Lead	5.545	0.25	5	0	111	80-120	0			
Silver	5.345	0.25	5	0	107	80-120	0			

MS Sample ID: **1704626-21BMS** Units: **mg/Kg** Analysis Date: **4/19/2017 01:22 AM**

Client ID: **TDSB 04 (6-8) - 041117** Run ID: **ICPMS1_170418A** SeqNo: **4383426** Prep Date: **4/18/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.69	1.4	7.143	5.058	78.9	75-125	0			
Barium	83.34	1.4	7.143	57.44	363	75-125	0			SO
Cadmium	6.211	0.57	7.143	0.1064	85.5	75-125	0			
Chromium	33.26	1.4	7.143	16.96	228	75-125	0			S
Lead	22.68	1.4	7.143	34.25	-162	75-125	0			SO
Silver	6.723	1.4	7.143	0.0367	93.6	75-125	0			

MSD Sample ID: **1704626-21BMSD** Units: **mg/Kg** Analysis Date: **4/19/2017 01:28 AM**

Client ID: **TDSB 04 (6-8) - 041117** Run ID: **ICPMS1_170418A** SeqNo: **4383427** Prep Date: **4/18/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.74	1.4	7.082	5.058	80.2	75-125	10.69	0.421	20	
Barium	101.6	1.4	7.082	57.44	624	75-125	83.34	19.8	20	SO
Cadmium	6.38	0.57	7.082	0.1064	88.6	75-125	6.211	2.67	20	
Chromium	38.1	1.4	7.082	16.96	299	75-125	33.26	13.6	20	S
Lead	20.21	1.4	7.082	34.25	-198	75-125	22.68	11.5	20	SO
Silver	6.697	1.4	7.082	0.0367	94	75-125	6.723	0.387	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100767** Instrument ID **ICPMS1** Method: **SW6020A**

The following samples were analyzed in this batch:

1704626-03B	1704626-04B	1704626-05B
1704626-06B	1704626-07B	1704626-08B
1704626-09B	1704626-10B	1704626-11B
1704626-12B	1704626-13B	1704626-14B
1704626-15B	1704626-16B	1704626-17B
1704626-18B	1704626-19B	1704626-20B
1704626-21B	1704626-23B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100771** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-100771-100771** Units: **mg/Kg** Analysis Date: **4/19/2017 01:46 AM**
Client ID: Run ID: **ICPMS1_170418A** SeqNo: **4383430** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Barium	U	0.25								
Cadmium	U	0.10								
Chromium	U	0.25								
Lead	0.005915	0.25								J
Selenium	U	0.25								
Silver	U	0.25								

LCS Sample ID: **LCS-100771-100771** Units: **mg/Kg** Analysis Date: **4/19/2017 02:11 AM**
Client ID: Run ID: **ICPMS1_170418A** SeqNo: **4383434** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.484	0.25	5	0	89.7	80-120	0			
Barium	5.465	0.25	5	0	109	80-120	0			
Cadmium	4.832	0.10	5	0	96.6	80-120	0			
Lead	5.465	0.25	5	0	109	80-120	0			
Silver	5.255	0.25	5	0	105	80-120	0			

LCS Sample ID: **LCS-100771-100771** Units: **mg/Kg** Analysis Date: **4/19/2017 03:36 PM**
Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4386346** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	5.265	0.25	5	0	105	80-120	0			
Selenium	4.104	0.25	5	0	82.1	80-120	0			

MS Sample ID: **1704626-26BMS** Units: **mg/Kg** Analysis Date: **4/19/2017 02:35 AM**
Client ID: **TDSB 2 (6-8) - 041117** Run ID: **ICPMS1_170418A** SeqNo: **4383438** Prep Date: **4/18/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.85	1.6	7.764	4.809	104	75-125	0			
Barium	85.53	1.6	7.764	70.66	192	75-125	0			SO
Cadmium	7.54	0.62	7.764	0.005238	97.1	75-125	0			
Lead	142.1	1.6	7.764	55.72	1110	75-125	0			SO
Selenium	8.854	1.6	7.764	1.61	93.3	75-125	0			

MS Sample ID: **1704626-26BMS** Units: **mg/Kg** Analysis Date: **4/19/2017 04:00 PM**
Client ID: **TDSB 2 (6-8) - 041117** Run ID: **ICPMS1_170419A** SeqNo: **4386350** Prep Date: **4/18/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	28.25	1.6	7.764	19.42	114	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100771** Instrument ID **ICPMS1** Method: **SW6020A**

MSD Sample ID: **1704626-26BMSD** Units: **mg/Kg** Analysis Date: **4/19/2017 02:41 AM**

Client ID: **TDSB 2 (6-8) - 041117** Run ID: **ICPMS1_170418A** SeqNo: **4383439** Prep Date: **4/18/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.76	1.6	7.837	4.809	101	75-125	12.85	0.721	20	
Barium	92.19	1.6	7.837	70.66	275	75-125	85.53	7.5	20	SO
Cadmium	7.555	0.63	7.837	0.005238	96.3	75-125	7.54	0.192	20	
Lead	182.5	1.6	7.837	55.72	1620	75-125	142.1	24.9	20	SRO
Selenium	8.558	1.6	7.837	1.61	88.7	75-125	8.854	3.4	20	

MSD Sample ID: **1704626-26BMSD** Units: **mg/Kg** Analysis Date: **4/19/2017 04:07 PM**

Client ID: **TDSB 2 (6-8) - 041117** Run ID: **ICPMS1_170419A** SeqNo: **4386351** Prep Date: **4/18/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	29.45	1.6	7.837	19.42	128	75-125	28.25	4.16	20	S

The following samples were analyzed in this batch:

1704626-24B	1704626-25B	1704626-26B
1704626-28B	1704626-29B	1704626-30B
1704626-31B	1704626-32B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100878** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-100878-100878** Units: **mg/Kg** Analysis Date: **4/21/2017 06:21 AM**

Client ID: Run ID: **ICPMS1_170420A** SeqNo: **4388774** Prep Date: **4/20/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	U	0.25								

LCS Sample ID: **LCS-100878-100878** Units: **mg/Kg** Analysis Date: **4/21/2017 06:28 AM**

Client ID: Run ID: **ICPMS1_170420A** SeqNo: **4388775** Prep Date: **4/20/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	4.429	0.25	5	0	88.6	80-120	0			

MS Sample ID: **1704626-21BMS** Units: **mg/Kg** Analysis Date: **4/21/2017 11:03 AM**

Client ID: **TDSB 04 (6-8) - 041117** Run ID: **ICPMS1_170420A** SeqNo: **4389631** Prep Date: **4/20/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	6.744	1.3	6.41	1.404	83.3	75-125	0			

MSD Sample ID: **1704626-21BMSD** Units: **mg/Kg** Analysis Date: **4/21/2017 11:09 AM**

Client ID: **TDSB 04 (6-8) - 041117** Run ID: **ICPMS1_170420A** SeqNo: **4389632** Prep Date: **4/20/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	6.749	1.3	6.435	1.404	83.1	75-125	6.744	0.0807	20	

The following samples were analyzed in this batch:

1704626-03B	1704626-04B	1704626-05B
1704626-06B	1704626-07B	1704626-08B
1704626-09B	1704626-10B	1704626-11B
1704626-12B	1704626-13B	1704626-14B
1704626-15B	1704626-16B	1704626-17B
1704626-18B	1704626-19B	1704626-20B
1704626-21B	1704626-23B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100660** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-100660-100660** Units: **µg/Kg** Analysis Date: **4/18/2017 11:18 PM**

Client ID: Run ID: **SVMS6_170418A** SeqNo: **4385437** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	U	42								
2-Methylnaphthalene	U	42								
Acenaphthene	U	42								
Acenaphthylene	U	42								
Anthracene	U	42								
Benzo(a)anthracene	U	42								
Benzo(a)pyrene	U	42								
Benzo(b)fluoranthene	U	42								
Benzo(g,h,i)perylene	U	42								
Benzo(k)fluoranthene	U	42								
Chrysene	U	42								
Dibenzo(a,h)anthracene	U	42								
Fluoranthene	U	42								
Fluorene	U	42								
Indeno(1,2,3-cd)pyrene	U	42								
Naphthalene	U	42								
Phenanthrene	U	42								
Pyrene	U	42								
Surr: 2-Fluorobiphenyl	*2995*	0	*3333*	0	*89.9*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3085*	0	*3333*	0	*92.6*	*22-172*	0			
Surr: Nitrobenzene-d5	*2524*	0	*3333*	0	*75.7*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100660** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-100660-100660** Units: **µg/Kg** Analysis Date: **4/18/2017 11:44 PM**

Client ID: Run ID: **SVMS6_170418A** SeqNo: **4385438** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1351	42	1333	0	101	50-140	0			
2-Methylnaphthalene	1451	42	1333	0	109	50-140	0			
Acenaphthene	1218	42	1333	0	91.3	60-140	0			
Acenaphthylene	1221	42	1333	0	91.6	60-140	0			
Anthracene	1405	42	1333	0	105	60-140	0			
Benzo(a)anthracene	1375	42	1333	0	103	60-140	0			
Benzo(a)pyrene	1330	42	1333	0	99.8	60-140	0			
Benzo(b)fluoranthene	1341	42	1333	0	101	60-140	0			
Benzo(g,h,i)perylene	1288	42	1333	0	96.6	60-140	0			
Benzo(k)fluoranthene	1417	42	1333	0	106	60-140	0			
Chrysene	1304	42	1333	0	97.8	60-140	0			
Dibenzo(a,h)anthracene	1370	42	1333	0	103	60-140	0			
Fluoranthene	1398	42	1333	0	105	60-140	0			
Fluorene	1627	42	1333	0	122	60-140	0			
Indeno(1,2,3-cd)pyrene	1378	42	1333	0	103	60-140	0			
Naphthalene	1194	42	1333	0	89.6	40-140	0			
Phenanthrene	1369	42	1333	0	103	60-140	0			
Pyrene	1440	42	1333	0	108	60-140	0			
Surr: 2-Fluorobiphenyl	*2598*	0	*3333*	0	*78*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2536*	0	*3333*	0	*76.1*	*22-172*	0			
Surr: Nitrobenzene-d5	*2377*	0	*3333*	0	*71.3*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100660** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **1704624-10B MS** Units: **µg/Kg** Analysis Date: **4/19/2017 12:10 PM**

Client ID: Run ID: **SVMS6_170418A** SeqNo: **4385463** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1286	41	1319	0	97.4	50-140	0			
2-Methylnaphthalene	1436	41	1319	54.48	105	50-140	0			
Acenaphthene	1448	41	1319	246.1	91.1	60-140	0			
Acenaphthylene	1255	41	1319	96.39	87.8	60-140	0			
Anthracene	2432	41	1319	1056	104	60-140	0			
Benzo(a)anthracene	4434	41	1319	2629	137	60-140	0			
Benzo(a)pyrene	3009	41	1319	1546	111	60-140	0			
Benzo(b)fluoranthene	3628	41	1319	2316	99.5	60-140	0			
Benzo(g,h,i)perylene	1402	41	1319	565.6	63.4	60-140	0			
Benzo(k)fluoranthene	2349	41	1319	597.7	133	60-140	0			
Chrysene	3793	41	1319	1612	165	60-140	0			S
Dibenzo(a,h)anthracene	1181	41	1319	192.6	74.9	60-140	0			
Fluoranthene	5587	41	1319	4910	51.3	60-140	0			S
Fluorene	1859	41	1319	212.6	125	60-140	0			
Indeno(1,2,3-cd)pyrene	2387	41	1319	1242	86.8	60-140	0			
Naphthalene	1211	41	1319	63.01	87	40-140	0			
Phenanthrene	4504	41	1319	2830	127	60-140	0			
Pyrene	4999	41	1319	4188	61.5	60-140	0			
Surr: 2-Fluorobiphenyl	*2377*	0	*3298*	0	*72.1*	*20-140*	0			
Surr: 4-Terphenyl-d14	*1988*	0	*3298*	0	*60.3*	*22-172*	0			
Surr: Nitrobenzene-d5	*2185*	0	*3298*	0	*66.2*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100660** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **1704624-10B MSD** Units: **µg/Kg** Analysis Date: **4/19/2017 12:36 PM**

Client ID: Run ID: **SVMS6_170418A** SeqNo: **4385464** Prep Date: **4/17/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1244	40	1269	0	98.1	50-140	1286	3.25	30	
2-Methylnaphthalene	1465	40	1269	54.48	111	50-140	1436	2.03	30	
Acenaphthene	1485	40	1269	246.1	97.7	60-140	1448	2.54	30	
Acenaphthylene	1221	40	1269	96.39	88.7	60-140	1255	2.73	30	
Anthracene	2255	40	1269	1056	94.5	60-140	2432	7.55	30	
Benzo(a)anthracene	3385	40	1269	2629	59.6	60-140	4434	26.8	30	S
Benzo(a)pyrene	2203	40	1269	1546	51.8	60-140	3009	30.9	30	SR
Benzo(b)fluoranthene	2801	40	1269	2316	38.3	60-140	3628	25.7	30	S
Benzo(g,h,i)perylene	1280	40	1269	565.6	56.3	60-140	1402	9.06	30	S
Benzo(k)fluoranthene	1756	40	1269	597.7	91.3	60-140	2349	28.9	30	
Chrysene	2681	40	1269	1612	84.3	60-140	3793	34.4	30	R
Dibenzo(a,h)anthracene	1021	40	1269	192.6	65.3	60-140	1181	14.5	30	
Fluoranthene	4708	40	1269	4910	-15.9	60-140	5587	17.1	30	S
Fluorene	1866	40	1269	212.6	130	60-140	1859	0.372	30	
Indeno(1,2,3-cd)pyrene	2008	40	1269	1242	60.4	60-140	2387	17.3	30	
Naphthalene	1320	40	1269	63.01	99	40-140	1211	8.56	30	
Phenanthrene	4305	40	1269	2830	116	60-140	4504	4.5	30	
Pyrene	4165	40	1269	4188	-1.82	60-140	4999	18.2	30	S
Surr: 2-Fluorobiphenyl	*2372*	0	*3172*	0	*74.8*	*20-140*	2377	*0.189*	*30*	
Surr: 4-Terphenyl-d14	*1962*	0	*3172*	0	*61.9*	*22-172*	1988	*1.27*	*30*	
Surr: Nitrobenzene-d5	*2194*	0	*3172*	0	*69.2*	*8-140*	2185	*0.405*	*30*	

The following samples were analyzed in this batch:

1704626-01B	1704626-02B	1704626-03B
1704626-04B	1704626-05B	1704626-06B
1704626-07B	1704626-08B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100734** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-100734-100734** Units: **µg/Kg** Analysis Date: **4/18/2017 04:08 PM**

Client ID: Run ID: **SVMS5_170418A** SeqNo: **4384393** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	U	6.7								
2-Methylnaphthalene	U	6.7								
Acenaphthene	U	6.7								
Acenaphthylene	U	6.7								
Anthracene	U	6.7								
Benzo(a)anthracene	U	6.7								
Benzo(a)pyrene	U	6.7								
Benzo(b)fluoranthene	U	6.7								
Benzo(g,h,i)perylene	U	6.7								
Benzo(k)fluoranthene	U	6.7								
Chrysene	U	6.7								
Dibenzo(a,h)anthracene	U	6.7								
Fluoranthene	U	6.7								
Fluorene	U	6.7								
Indeno(1,2,3-cd)pyrene	U	6.7								
Naphthalene	U	6.7								
Phenanthrene	U	6.7								
Pyrene	U	6.7								
Surr: 2-Fluorobiphenyl	*2731*	0	*3333*	0	*81.9*	*12-100*	0			
Surr: 4-Terphenyl-d14	*3134*	0	*3333*	0	*94*	*25-137*	0			
Surr: Nitrobenzene-d5	*2701*	0	*3333*	0	*81*	*37-107*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100734** Instrument ID **SVMS5** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-100734-100734** Units: **µg/Kg** Analysis Date: **4/18/2017 04:32 PM**

Client ID: Run ID: **SVMS5_170418A** SeqNo: **4384394** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1148	6.7	1333	0	86.1	45-105	0			
2-Methylnaphthalene	1198	6.7	1333	0	89.9	45-105	0			
Acenaphthene	1085	6.7	1333	0	81.4	45-110	0			
Acenaphthylene	1179	6.7	1333	0	88.5	45-105	0			
Anthracene	1241	6.7	1333	0	93.1	55-105	0			
Benzo(a)anthracene	1141	6.7	1333	0	85.6	50-110	0			
Benzo(a)pyrene	1227	6.7	1333	0	92.1	50-110	0			
Benzo(b)fluoranthene	1240	6.7	1333	0	93	45-115	0			
Benzo(g,h,i)perylene	1123	6.7	1333	0	84.2	40-125	0			
Benzo(k)fluoranthene	1201	6.7	1333	0	90.1	45-115	0			
Chrysene	1086	6.7	1333	0	81.5	55-110	0			
Dibenzo(a,h)anthracene	1093	6.7	1333	0	82	40-125	0			
Fluoranthene	1211	6.7	1333	0	90.8	55-115	0			
Fluorene	1209	6.7	1333	0	90.7	50-110	0			
Indeno(1,2,3-cd)pyrene	1151	6.7	1333	0	86.3	40-120	0			
Naphthalene	1095	6.7	1333	0	82.1	40-105	0			
Phenanthrene	1153	6.7	1333	0	86.5	50-110	0			
Pyrene	1273	6.7	1333	0	95.5	45-125	0			
Surr: 2-Fluorobiphenyl	*2745*	0	*3333*	0	*82.4*	*12-100*	0			
Surr: 4-Terphenyl-d14	*3013*	0	*3333*	0	*90.4*	*25-137*	0			
Surr: Nitrobenzene-d5	*2822*	0	*3333*	0	*84.7*	*37-107*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100734** Instrument ID **SVMS5** Method: **SW846 8270D**

MS Sample ID: **1704868-02B MS** Units: **µg/Kg** Analysis Date: **4/18/2017 06:19 PM**

Client ID: Run ID: **SVMS5_170418A** SeqNo: **4384395** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	911.5	6.6	1315	0	69.3	45-105	0			
2-Methylnaphthalene	937.2	6.6	1315	0	71.3	45-105	0			
Acenaphthene	935.9	6.6	1315	0	71.2	45-110	0			
Acenaphthylene	948.4	6.6	1315	0	72.1	45-105	0			
Anthracene	1011	6.6	1315	0	76.9	55-105	0			
Benzo(a)anthracene	918.8	6.6	1315	0	69.9	50-110	0			
Benzo(a)pyrene	997.7	6.6	1315	0	75.9	50-110	0			
Benzo(b)fluoranthene	1011	6.6	1315	0	76.9	45-115	0			
Benzo(g,h,i)perylene	961.5	6.6	1315	0	73.1	40-125	0			
Benzo(k)fluoranthene	1031	6.6	1315	0	78.4	45-115	0			
Chrysene	912.9	6.6	1315	0	69.4	55-110	0			
Dibenzo(a,h)anthracene	931.3	6.6	1315	0	70.8	40-125	0			
Fluoranthene	1025	6.6	1315	0	78	55-115	0			
Fluorene	980.6	6.6	1315	0	74.6	50-110	0			
Indeno(1,2,3-cd)pyrene	935.9	6.6	1315	0	71.2	40-120	0			
Naphthalene	857	6.6	1315	0	65.2	40-105	0			
Phenanthrene	958.9	6.6	1315	0	72.9	50-110	0			
Pyrene	1051	6.6	1315	0	79.9	45-125	0			
Surr: 2-Fluorobiphenyl	*2264*	0	*3288*	0	*68.8*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2520*	0	*3288*	0	*76.6*	*25-137*	0			
Surr: Nitrobenzene-d5	*2235*	0	*3288*	0	*68*	*37-107*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100734** Instrument ID **SVMS5** Method: **SW846 8270D**

MSD Sample ID: **1704868-02B MSD** Units: **µg/Kg** Analysis Date: **4/18/2017 06:42 PM**

Client ID: Run ID: **SVMS5_170418A** SeqNo: **4384396** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	833.3	6.6	1314	0	63.4	45-105	911.5	8.96	30	
2-Methylnaphthalene	865.5	6.6	1314	0	65.9	45-105	937.2	7.95	30	
Acenaphthene	885.9	6.6	1314	0	67.4	45-110	935.9	5.49	30	
Acenaphthylene	866.2	6.6	1314	0	65.9	45-105	948.4	9.06	30	
Anthracene	951	6.6	1314	0	72.4	55-105	1011	6.1	30	
Benzo(a)anthracene	849.1	6.6	1314	0	64.6	50-110	918.8	7.88	30	
Benzo(a)pyrene	905.6	6.6	1314	0	68.9	50-110	997.7	9.67	30	
Benzo(b)fluoranthene	917.5	6.6	1314	0	69.8	45-115	1011	9.69	30	
Benzo(g,h,i)perylene	866.2	6.6	1314	0	65.9	40-125	961.5	10.4	30	
Benzo(k)fluoranthene	895.8	6.6	1314	0	68.2	45-115	1031	14.1	30	
Chrysene	838.6	6.6	1314	0	63.8	55-110	912.9	8.48	30	
Dibenzo(a,h)anthracene	837.9	6.6	1314	0	63.8	40-125	931.3	10.6	30	
Fluoranthene	935.9	6.6	1314	0	71.2	55-115	1025	9.12	30	
Fluorene	872.8	6.6	1314	0	66.4	50-110	980.6	11.6	30	
Indeno(1,2,3-cd)pyrene	844.5	6.6	1314	0	64.3	40-120	935.9	10.3	30	
Naphthalene	790	6.6	1314	0	60.1	40-105	857	8.14	30	
Phenanthrene	876.7	6.6	1314	0	66.7	50-110	958.9	8.95	30	
Pyrene	982.5	6.6	1314	0	74.8	45-125	1051	6.73	30	
Surr: 2-Fluorobiphenyl	*2070*	0	*3286*	0	*63*	*12-100*	2264	*8.93*	*40*	
Surr: 4-Terphenyl-d14	*2302*	0	*3286*	0	*70.1*	*25-137*	2520	*9.02*	*40*	
Surr: Nitrobenzene-d5	*2070*	0	*3286*	0	*63*	*37-107*	2235	*7.65*	*40*	

The following samples were analyzed in this batch: 1704626-31B 1704626-32B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100735** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-100735-100735** Units: **µg/Kg** Analysis Date: **4/19/2017 12:59 PM**

Client ID: Run ID: **SVMS6_170419A** SeqNo: **4388382** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	U	42								
2-Methylnaphthalene	U	42								
Acenaphthene	U	42								
Acenaphthylene	U	42								
Anthracene	U	42								
Benzo(a)anthracene	U	42								
Benzo(a)pyrene	U	42								
Benzo(b)fluoranthene	U	42								
Benzo(g,h,i)perylene	U	42								
Benzo(k)fluoranthene	U	42								
Chrysene	U	42								
Dibenzo(a,h)anthracene	U	42								
Fluoranthene	U	42								
Fluorene	U	42								
Indeno(1,2,3-cd)pyrene	U	42								
Naphthalene	U	42								
Phenanthrene	U	42								
Pyrene	U	42								
Surr: 2-Fluorobiphenyl	*2947*	0	*3333*	0	*88.4*	*20-140*		0		
Surr: 4-Terphenyl-d14	*2725*	0	*3333*	0	*81.8*	*22-172*		0		
Surr: Nitrobenzene-d5	*2458*	0	*3333*	0	*73.8*	*8-140*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100735** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-100735-100735** Units: **µg/Kg** Analysis Date: **4/19/2017 01:25 PM**

Client ID: Run ID: **SVMS6_170419A** SeqNo: **4388383** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1435	42	1333	0	108	50-140	0			
2-Methylnaphthalene	1333	42	1333	0	100	50-140	0			
Acenaphthene	1301	42	1333	0	97.6	60-140	0			
Acenaphthylene	1273	42	1333	0	95.5	60-140	0			
Anthracene	1668	42	1333	0	125	60-140	0			
Benzo(a)anthracene	1486	42	1333	0	111	60-140	0			
Benzo(a)pyrene	1415	42	1333	0	106	60-140	0			
Benzo(b)fluoranthene	1565	42	1333	0	117	60-140	0			
Benzo(g,h,i)perylene	1309	42	1333	0	98.2	60-140	0			
Benzo(k)fluoranthene	1514	42	1333	0	114	60-140	0			
Chrysene	1311	42	1333	0	98.4	60-140	0			
Dibenzo(a,h)anthracene	1438	42	1333	0	108	60-140	0			
Fluoranthene	1390	42	1333	0	104	60-140	0			
Fluorene	1761	42	1333	0	132	60-140	0			
Indeno(1,2,3-cd)pyrene	1488	42	1333	0	112	60-140	0			
Naphthalene	1151	42	1333	0	86.4	40-140	0			
Phenanthrene	1400	42	1333	0	105	60-140	0			
Pyrene	1417	42	1333	0	106	60-140	0			
Surr: 2-Fluorobiphenyl	*2766*	0	*3333*	0	*83*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2338*	0	*3333*	0	*70.2*	*22-172*	0			
Surr: Nitrobenzene-d5	*2459*	0	*3333*	0	*73.8*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100735** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **1704626-10B MS** Units: **µg/Kg** Analysis Date: **4/19/2017 01:51 PM**

Client ID: **TDSB 25 (4-6) - 041017** Run ID: **SVMS6_170419A** SeqNo: **4388384** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1388	42	1331	0	104	50-140	0			
2-Methylnaphthalene	1301	42	1331	0	97.8	50-140	0			
Acenaphthene	1253	42	1331	0	94.2	60-140	0			
Acenaphthylene	1231	42	1331	0	92.5	60-140	0			
Anthracene	1606	42	1331	0	121	60-140	0			
Benzo(a)anthracene	1438	42	1331	0	108	60-140	0			
Benzo(a)pyrene	1301	42	1331	0	97.8	60-140	0			
Benzo(b)fluoranthene	1439	42	1331	0	108	60-140	0			
Benzo(g,h,i)perylene	1244	42	1331	0	93.5	60-140	0			
Benzo(k)fluoranthene	1289	42	1331	0	96.9	60-140	0			
Chrysene	1241	42	1331	0	93.3	60-140	0			
Dibenzo(a,h)anthracene	1425	42	1331	0	107	60-140	0			
Fluoranthene	1311	42	1331	41.57	95.4	60-140	0			
Fluorene	1696	42	1331	0	127	60-140	0			
Indeno(1,2,3-cd)pyrene	1481	42	1331	0	111	60-140	0			
Naphthalene	1149	42	1331	0	86.3	40-140	0			
Phenanthrene	1378	42	1331	0	104	60-140	0			
Pyrene	1387	42	1331	0	104	60-140	0			
Surr: 2-Fluorobiphenyl	*2625*	0	*3327*	0	*78.9*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2156*	0	*3327*	0	*64.8*	*22-172*	0			
Surr: Nitrobenzene-d5	*2438*	0	*3327*	0	*73.3*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100735** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **1704626-10B MSD** Units: **µg/Kg** Analysis Date: **4/19/2017 02:17 PM**

Client ID: **TDSB 25 (4-6) - 041017** Run ID: **SVMS6_170419A** SeqNo: **4388385** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1277	40	1272	0	100	50-140	1388	8.32	30	
2-Methylnaphthalene	1213	40	1272	0	95.4	50-140	1301	7.02	30	
Acenaphthene	1153	40	1272	0	90.7	60-140	1253	8.26	30	
Acenaphthylene	1116	40	1272	0	87.8	60-140	1231	9.83	30	
Anthracene	1488	40	1272	0	117	60-140	1606	7.59	30	
Benzo(a)anthracene	1297	40	1272	0	102	60-140	1438	10.4	30	
Benzo(a)pyrene	1219	40	1272	0	95.9	60-140	1301	6.52	30	
Benzo(b)fluoranthene	1270	40	1272	0	99.8	60-140	1439	12.5	30	
Benzo(g,h,i)perylene	1138	40	1272	0	89.5	60-140	1244	8.89	30	
Benzo(k)fluoranthene	1233	40	1272	0	97	60-140	1289	4.42	30	
Chrysene	1162	40	1272	0	91.4	60-140	1241	6.59	30	
Dibenzo(a,h)anthracene	1122	40	1272	0	88.2	60-140	1425	23.8	30	
Fluoranthene	1184	40	1272	41.57	89.9	60-140	1311	10.1	30	
Fluorene	1566	40	1272	0	123	60-140	1696	7.96	30	
Indeno(1,2,3-cd)pyrene	1370	40	1272	0	108	60-140	1481	7.78	30	
Naphthalene	1047	40	1272	0	82.3	40-140	1149	9.29	30	
Phenanthrene	1259	40	1272	0	99	60-140	1378	9	30	
Pyrene	1256	40	1272	0	98.7	60-140	1387	9.96	30	
Surr: 2-Fluorobiphenyl	*2364*	0	*3180*	0	*74.3*	*20-140*	2625	*10.4*	*30*	
Surr: 4-Terphenyl-d14	*1992*	0	*3180*	0	*62.6*	*22-172*	2156	*7.92*	*30*	
Surr: Nitrobenzene-d5	*2278*	0	*3180*	0	*71.6*	*8-140*	2438	*6.8*	*30*	

The following samples were analyzed in this batch:

1704626-09B	1704626-10B	1704626-11B
1704626-12B	1704626-13B	1704626-14B
1704626-15B	1704626-16B	1704626-17B
1704626-18B	1704626-19B	1704626-20B
1704626-21B	1704626-23B	1704626-24B
1704626-25B	1704626-26B	1704626-28B
1704626-29B	1704626-30B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100549** Instrument ID **VMS5** Method: **SW8260B**

MBLK Sample ID: **MBLK-100549-100549** Units: **µg/Kg-dry** Analysis Date: **4/13/2017 11:39 AM**

Client ID: Run ID: **VMS5_170413A** SeqNo: **4374518** Prep Date: **4/13/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	30								
1,1,2,2-Tetrachloroethane	U	30								
1,1,2-Trichloroethane	U	30								
1,1-Dichloroethane	U	30								
1,1-Dichloroethene	U	30								
1,2-Dichloroethane	U	30								
1,2-Dichloropropane	U	30								
2-Butanone	U	200								
2-Hexanone	U	30								
4-Methyl-2-pentanone	U	30								
Acetone	U	100								
Benzene	U	30								
Bromodichloromethane	U	30								
Bromoform	U	30								
Bromomethane	U	75								
Carbon disulfide	U	30								
Carbon tetrachloride	U	30								
Chlorobenzene	U	30								
Chloroethane	U	100								
Chloroform	U	30								
cis-1,2-Dichloroethene	U	30								
cis-1,3-Dichloropropene	U	30								
Dibromochloromethane	U	30								
Ethylbenzene	U	30								
Methyl tert-butyl ether	U	30								
Methylene chloride	U	30								
Styrene	U	30								
Tetrachloroethene	U	30								
Toluene	U	30								
trans-1,2-Dichloroethene	U	30								
trans-1,3-Dichloropropene	U	30								
Trichloroethene	U	30								
Vinyl chloride	U	30								
Xylenes, Total	U	90								
Surr: 1,2-Dichloroethane-d4	*1072*	0	*1000*	0	*107*	*70-130*		0		
Surr: 4-Bromofluorobenzene	*916*	0	*1000*	0	*91.6*	*70-130*		0		
Surr: Dibromofluoromethane	*1036*	0	*1000*	0	*104*	*70-130*		0		
Surr: Toluene-d8	*940*	0	*1000*	0	*94*	*70-130*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100549** Instrument ID **VMS5** Method: **SW8260B**

LCS Sample ID: **LCS-100549-100549** Units: **µg/Kg-dry** Analysis Date: **4/13/2017 10:22 AM**

Client ID: Run ID: **VMS5_170413A** SeqNo: **4374517** Prep Date: **4/13/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	961.5	30	1000	0	96.2	70-135	0			
1,1,2,2-Tetrachloroethane	901	30	1000	0	90.1	55-130	0			
1,1,2-Trichloroethane	926.5	30	1000	0	92.6	60-125	0			
1,1-Dichloroethane	899.5	30	1000	0	90	75-125	0			
1,1-Dichloroethene	949.5	30	1000	0	95	65-135	0			
1,2-Dichloroethane	936	30	1000	0	93.6	70-135	0			
1,2-Dichloropropane	846	30	1000	0	84.6	70-120	0			
2-Butanone	978.5	200	1000	0	97.8	30-160	0			
2-Hexanone	1002	30	1000	0	100	45-145	0			
4-Methyl-2-pentanone	1228	30	1000	0	123	74-176	0			
Acetone	963	100	1000	0	96.3	20-160	0			
Benzene	972	30	1000	0	97.2	75-125	0			
Bromodichloromethane	901	30	1000	0	90.1	70-130	0			
Bromoform	864	30	1000	0	86.4	55-135	0			
Bromomethane	912	75	1000	0	91.2	50-170	0			
Carbon disulfide	959.5	30	1000	0	96	45-160	0			
Carbon tetrachloride	931.5	30	1000	0	93.2	65-135	0			
Chlorobenzene	887	30	1000	0	88.7	75-125	0			
Chloroethane	934	100	1000	0	93.4	40-155	0			
Chloroform	913.5	30	1000	0	91.4	70-125	0			
cis-1,2-Dichloroethene	915.5	30	1000	0	91.6	65-125	0			
cis-1,3-Dichloropropene	923	30	1000	0	92.3	70-125	0			
Dibromochloromethane	851.5	30	1000	0	85.2	65-135	0			
Ethylbenzene	957.5	30	1000	0	95.8	75-125	0			
Methyl tert-butyl ether	1026	30	1000	0	103	75-125	0			
Methylene chloride	1014	30	1000	0	101	55-145	0			
Styrene	957.5	30	1000	0	95.8	80-138	0			
Tetrachloroethene	967.5	30	1000	0	96.8	67-167	0			
Toluene	927.5	30	1000	0	92.8	70-125	0			
trans-1,2-Dichloroethene	910.5	30	1000	0	91	65-135	0			
trans-1,3-Dichloropropene	860	30	1000	0	86	59-129	0			
Trichloroethene	914.5	30	1000	0	91.4	75-125	0			
Vinyl chloride	858.5	30	1000	0	85.8	60-125	0			
Xylenes, Total	3008	90	3000	0	100	75-125	0			
Surr: 1,2-Dichloroethane-d4	*986.5*	0	*1000*	0	*98.6*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1016*	0	*1000*	0	*102*	*70-130*	0			
Surr: Dibromofluoromethane	*982.5*	0	*1000*	0	*98.2*	*70-130*	0			
Surr: Toluene-d8	*1003*	0	*1000*	0	*100*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100549** Instrument ID **VMS5** Method: **SW8260B**

MS Sample ID: **1704626-01A MS** Units: **µg/Kg-dry** Analysis Date: **4/14/2017 08:19 AM**

Client ID: **TDSB 21 (2-4) - 041017** Run ID: **VMS5_170413B** SeqNo: **4374769** Prep Date: **4/13/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1358	41	1381	0	98.4	70-135	0			
1,1,2,2-Tetrachloroethane	1034	41	1381	0	74.8	55-130	0			
1,1,2-Trichloroethane	1236	41	1381	0	89.5	60-125	0			
1,1-Dichloroethane	1406	41	1381	0	102	75-125	0			
1,1-Dichloroethene	1580	41	1381	0	114	65-135	0			
1,2-Dichloroethane	1367	41	1381	0	99	70-135	0			
1,2-Dichloropropane	1244	41	1381	0	90.1	70-120	0			
2-Butanone	2513	280	1381	0	182	30-160	0			S
2-Hexanone	2011	41	1381	0	146	45-145	0			S
4-Methyl-2-pentanone	1698	41	1381	0	123	74-176	0			
Acetone	3564	140	1381	0	258	20-160	0			S
Benzene	1385	41	1381	0	100	75-125	0			
Bromodichloromethane	1161	41	1381	0	84	70-130	0			
Bromoform	1034	41	1381	0	74.8	55-135	0			
Bromomethane	145.7	100	1381	0	10.6	50-170	0			S
Carbon disulfide	1406	41	1381	0	102	45-160	0			
Carbon tetrachloride	1328	41	1381	0	96.2	65-135	0			
Chlorobenzene	1226	41	1381	0	88.8	75-125	0			
Chloroethane	954.9	140	1381	0	69.2	40-155	0			
Chloroform	1369	41	1381	0	99.2	70-125	0			
cis-1,2-Dichloroethene	1339	41	1381	0	97	65-125	0			
cis-1,3-Dichloropropene	1251	41	1381	0	90.6	70-125	0			
Dibromochloromethane	1047	41	1381	0	75.8	65-135	0			
Ethylbenzene	1417	41	1381	0	103	75-125	0			
Methyl tert-butyl ether	1603	41	1381	0	116	75-125	0			
Methylene chloride	1587	41	1381	0	115	55-145	0			
Styrene	1312	41	1381	0	95	80-138	0			
Tetrachloroethene	2275	41	1381	0	165	67-167	0			
Toluene	1320	41	1381	0	95.6	70-125	0			
trans-1,2-Dichloroethene	1442	41	1381	0	104	65-135	0			
trans-1,3-Dichloropropene	1158	41	1381	0	83.8	59-129	0			
Trichloroethene	1429	41	1381	0	104	75-125	0			
Vinyl chloride	1262	41	1381	0	91.4	60-125	0			
Xylenes, Total	4324	120	4143	0	104	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1381*	0	*1381*	0	*100*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1458*	0	*1381*	0	*106*	*70-130*	0			
Surr: Dibromofluoromethane	*1267*	0	*1381*	0	*91.8*	*70-130*	0			
Surr: Toluene-d8	*1374*	0	*1381*	0	*99.5*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100549** Instrument ID **VMS5** Method: **SW8260B**

MSD Sample ID: **1704626-01A MSD** Units: **µg/Kg-dry** Analysis Date: **4/14/2017 08:45 AM**

Client ID: **TDSB 21 (2-4) - 041017** Run ID: **VMS5_170413B** SeqNo: **4374770** Prep Date: **4/13/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1262	41	1381	0	91.4	70-135	1358	7.33	30	
1,1,2,2-Tetrachloroethane	1005	41	1381	0	72.8	55-130	1034	2.85	30	
1,1,2-Trichloroethane	1160	41	1381	0	84	60-125	1236	6.34	30	
1,1-Dichloroethane	1283	41	1381	0	92.9	75-125	1406	9.14	30	
1,1-Dichloroethene	1408	41	1381	0	102	65-135	1580	11.5	30	
1,2-Dichloroethane	1293	41	1381	0	93.6	70-135	1367	5.61	30	
1,2-Dichloropropane	1146	41	1381	0	83	70-120	1244	8.26	30	
2-Butanone	2146	280	1381	0	155	30-160	2513	15.7	30	
2-Hexanone	1743	41	1381	0	126	45-145	2011	14.3	30	
4-Methyl-2-pentanone	1574	41	1381	0	114	74-176	1698	7.6	30	
Acetone	3110	140	1381	0	225	20-160	3564	13.6	30	S
Benzene	1286	41	1381	0	93.2	75-125	1385	7.39	30	
Bromodichloromethane	1104	41	1381	0	80	70-130	1161	5	30	
Bromoform	1008	41	1381	0	73	55-135	1034	2.5	30	
Bromomethane	327.3	100	1381	0	23.7	50-170	145.7	76.8	30	SR
Carbon disulfide	1306	41	1381	0	94.6	45-160	1406	7.43	30	
Carbon tetrachloride	1237	41	1381	0	89.6	65-135	1328	7.11	30	
Chlorobenzene	1133	41	1381	0	82	75-125	1226	7.85	30	
Chloroethane	908	140	1381	0	65.8	40-155	954.9	5.04	30	
Chloroform	1259	41	1381	0	91.2	70-125	1369	8.35	30	
cis-1,2-Dichloroethene	1250	41	1381	0	90.5	65-125	1339	6.88	30	
cis-1,3-Dichloropropene	1167	41	1381	0	84.5	70-125	1251	6.97	30	
Dibromochloromethane	1016	41	1381	0	73.6	65-135	1047	3.08	30	
Ethylbenzene	1304	41	1381	0	94.4	75-125	1417	8.32	30	
Methyl tert-butyl ether	1489	41	1381	0	108	75-125	1603	7.41	30	
Methylene chloride	1484	41	1381	0	107	55-145	1587	6.7	30	
Styrene	1217	41	1381	0	88.2	80-138	1312	7.48	30	
Tetrachloroethene	2139	41	1381	0	155	67-167	2275	6.16	30	
Toluene	1219	41	1381	0	88.3	70-125	1320	7.94	30	
trans-1,2-Dichloroethene	1328	41	1381	0	96.2	65-135	1442	8.22	30	
trans-1,3-Dichloropropene	1101	41	1381	0	79.7	59-129	1158	5.07	30	
Trichloroethene	1295	41	1381	0	93.8	75-125	1429	9.89	30	
Vinyl chloride	1141	41	1381	0	82.6	60-125	1262	10.1	30	
Xylenes, Total	4037	120	4143	0	97.4	75-125	4324	6.87	30	
Surr: 1,2-Dichloroethane-d4	*1375*	0	*1381*	0	*99.6*	*70-130*	1381	*0.401*	*30*	
Surr: 4-Bromofluorobenzene	*1442*	0	*1381*	0	*104*	*70-130*	1458	*1.1*	*30*	
Surr: Dibromofluoromethane	*1299*	0	*1381*	0	*94*	*70-130*	1267	*2.48*	*30*	
Surr: Toluene-d8	*1375*	0	*1381*	0	*99.6*	*70-130*	1374	*0.1*	*30*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100549** Instrument ID **VMS5** Method: **SW8260B**

The following samples were analyzed in this batch:

1704626-01A	1704626-03A	1704626-05A
1704626-06A	1704626-07A	1704626-08A
1704626-09A	1704626-10A	1704626-11A
1704626-12A	1704626-13A	1704626-14A
1704626-15A	1704626-16A	1704626-17A
1704626-18A	1704626-19A	1704626-20A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100605** Instrument ID **VMS9** Method: **SW8260B**

MBLK Sample ID: **MBLK-100605-100605** Units: **µg/Kg-dry** Analysis Date: **4/15/2017 03:21 AM**

Client ID: Run ID: **VMS9_170414A** SeqNo: **4379188** Prep Date: **4/14/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	30								
1,1,2,2-Tetrachloroethane	U	30								
1,1,2-Trichloroethane	U	30								
1,1-Dichloroethane	U	30								
1,1-Dichloroethene	U	30								
1,2-Dichloroethane	U	30								
1,2-Dichloropropane	U	30								
2-Butanone	U	200								
2-Hexanone	U	30								
4-Methyl-2-pentanone	U	30								
Acetone	U	100								
Benzene	U	30								
Bromodichloromethane	U	30								
Bromoform	U	30								
Bromomethane	U	75								
Carbon disulfide	U	30								
Carbon tetrachloride	U	30								
Chlorobenzene	U	30								
Chloroethane	U	100								
Chloroform	U	30								
cis-1,2-Dichloroethene	U	30								
cis-1,3-Dichloropropene	U	30								
Dibromochloromethane	U	30								
Ethylbenzene	U	30								
Methyl tert-butyl ether	U	30								
Methylene chloride	U	30								
Styrene	U	30								
Tetrachloroethene	U	30								
Toluene	U	30								
trans-1,2-Dichloroethene	U	30								
trans-1,3-Dichloropropene	U	30								
Trichloroethene	U	30								
Vinyl chloride	U	30								
Xylenes, Total	U	90								
Surr: 1,2-Dichloroethane-d4	*998*	0	*1000*	0	*99.8*	*70-130*		0		
Surr: 4-Bromofluorobenzene	*859*	0	*1000*	0	*85.9*	*70-130*		0		
Surr: Dibromofluoromethane	*983*	0	*1000*	0	*98.3*	*70-130*		0		
Surr: Toluene-d8	*979*	0	*1000*	0	*97.9*	*70-130*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100605** Instrument ID **VMS9** Method: **SW8260B**

LCS Sample ID: **LCS-100605-100605** Units: **µg/Kg-dry** Analysis Date: **4/15/2017 02:06 AM**

Client ID: Run ID: **VMS9_170414A** SeqNo: **4379187** Prep Date: **4/14/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1090	30	1000	0	109	70-135	0			
1,1,2,2-Tetrachloroethane	1040	30	1000	0	104	55-130	0			
1,1,2-Trichloroethane	1069	30	1000	0	107	60-125	0			
1,1-Dichloroethane	1116	30	1000	0	112	75-125	0			
1,1-Dichloroethene	1212	30	1000	0	121	65-135	0			
1,2-Dichloroethane	1068	30	1000	0	107	70-135	0			
1,2-Dichloropropane	1034	30	1000	0	103	70-120	0			
2-Butanone	1049	200	1000	0	105	30-160	0			
2-Hexanone	1106	30	1000	0	111	45-145	0			
4-Methyl-2-pentanone	920	30	1000	0	92	74-176	0			
Acetone	993.5	100	1000	0	99.4	20-160	0			
Benzene	1084	30	1000	0	108	75-125	0			
Bromodichloromethane	1059	30	1000	0	106	70-130	0			
Bromoform	921.5	30	1000	0	92.2	55-135	0			
Bromomethane	1058	75	1000	0	106	50-170	0			
Carbon disulfide	1274	30	1000	0	127	45-160	0			
Carbon tetrachloride	1068	30	1000	0	107	65-135	0			
Chlorobenzene	1078	30	1000	0	108	75-125	0			
Chloroethane	1065	100	1000	0	106	40-155	0			
Chloroform	1070	30	1000	0	107	70-125	0			
cis-1,2-Dichloroethene	1095	30	1000	0	110	65-125	0			
cis-1,3-Dichloropropene	934.5	30	1000	0	93.4	70-125	0			
Dibromochloromethane	855	30	1000	0	85.5	65-135	0			
Ethylbenzene	968.5	30	1000	0	96.8	75-125	0			
Methyl tert-butyl ether	1068	30	1000	0	107	75-125	0			
Methylene chloride	1044	30	1000	0	104	55-145	0			
Styrene	1016	30	1000	0	102	80-138	0			
Tetrachloroethene	1176	30	1000	0	118	67-167	0			
Toluene	1094	30	1000	0	109	70-125	0			
trans-1,2-Dichloroethene	1132	30	1000	0	113	65-135	0			
trans-1,3-Dichloropropene	881	30	1000	0	88.1	59-129	0			
Trichloroethene	1060	30	1000	0	106	75-125	0			
Vinyl chloride	1113	30	1000	0	111	60-125	0			
Xylenes, Total	2944	90	3000	0	98.1	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1006*	0	*1000*	0	*101*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1052*	0	*1000*	0	*105*	*70-130*	0			
Surr: Dibromofluoromethane	*1004*	0	*1000*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*1019*	0	*1000*	0	*102*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100605** Instrument ID **VMS9** Method: **SW8260B**

MS Sample ID: **1704647-01A MS** Units: **µg/Kg-dry** Analysis Date: **4/15/2017 12:03 PM**

Client ID: Run ID: **VMS9_170414A** SeqNo: **4379199** Prep Date: **4/14/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1244	37	1247	0	99.8	70-135	0			
1,1,2,2-Tetrachloroethane	1011	37	1247	0	81	55-130	0			
1,1,2-Trichloroethane	1195	37	1247	0	95.8	60-125	0			
1,1-Dichloroethane	1313	37	1247	0	105	75-125	0			
1,1-Dichloroethene	1404	37	1247	0	113	65-135	0			
1,2-Dichloroethane	1276	37	1247	0	102	70-135	0			
1,2-Dichloropropane	1196	37	1247	0	95.9	70-120	0			
2-Butanone	1933	250	1247	0	155	30-160	0			
2-Hexanone	1600	37	1247	0	128	45-145	0			
4-Methyl-2-pentanone	1323	37	1247	0	106	74-176	0			
Acetone	2509	120	1247	175.9	187	20-160	0			S
Benzene	1255	37	1247	0	101	75-125	0			
Bromodichloromethane	1159	37	1247	0	93	70-130	0			
Bromoform	981.5	37	1247	0	78.7	55-135	0			
Bromomethane	600.5	94	1247	0	48.2	50-170	0			S
Carbon disulfide	1185	37	1247	0	95	45-160	0			
Carbon tetrachloride	1205	37	1247	0	96.6	65-135	0			
Chlorobenzene	1199	37	1247	0	96.2	75-125	0			
Chloroethane	815.7	120	1247	0	65.4	40-155	0			
Chloroform	1252	37	1247	0	100	70-125	0			
cis-1,2-Dichloroethene	1280	37	1247	0	103	65-125	0			
cis-1,3-Dichloropropene	1031	37	1247	0	82.6	70-125	0			
Dibromochloromethane	909.8	37	1247	0	73	65-135	0			
Ethylbenzene	1139	37	1247	0	91.3	75-125	0			
Methyl tert-butyl ether	1346	37	1247	0	108	75-125	0			
Methylene chloride	1280	37	1247	0	103	55-145	0			
Styrene	1114	37	1247	0	89.4	80-138	0			
Tetrachloroethene	2051	37	1247	0	164	67-167	0			
Toluene	1195	37	1247	0	95.8	70-125	0			
trans-1,2-Dichloroethene	1328	37	1247	0	106	65-135	0			
trans-1,3-Dichloropropene	897.4	37	1247	0	72	59-129	0			
Trichloroethene	1381	37	1247	0	111	75-125	0			
Vinyl chloride	1381	37	1247	0	111	60-125	0			
Xylenes, Total	3410	110	3742	0	91.1	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1293*	0	*1247*	0	*104*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1329*	0	*1247*	0	*107*	*70-130*	0			
Surr: Dibromofluoromethane	*1215*	0	*1247*	0	*97.4*	*70-130*	0			
Surr: Toluene-d8	*1180*	0	*1247*	0	*94.6*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **100605** Instrument ID **VMS9** Method: **SW8260B**

MSD Sample ID: **1704647-01A MSD** Units: **µg/Kg-dry** Analysis Date: **4/15/2017 12:28 PM**

Client ID: Run ID: **VMS9_170414A** SeqNo: **4379200** Prep Date: **4/14/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1192	37	1247	0	95.6	70-135	1244	4.3	30	
1,1,2,2-Tetrachloroethane	871.8	37	1247	0	69.9	55-130	1011	14.8	30	
1,1,2-Trichloroethane	1146	37	1247	0	91.9	60-125	1195	4.16	30	
1,1-Dichloroethane	1252	37	1247	0	100	75-125	1313	4.72	30	
1,1-Dichloroethene	1370	37	1247	0	110	65-135	1404	2.43	30	
1,2-Dichloroethane	1205	37	1247	0	96.6	70-135	1276	5.73	30	
1,2-Dichloropropane	1168	37	1247	0	93.6	70-120	1196	2.37	30	
2-Butanone	2109	250	1247	0	169	30-160	1933	8.73	30	S
2-Hexanone	1736	37	1247	0	139	45-145	1600	8.19	30	
4-Methyl-2-pentanone	1354	37	1247	0	109	74-176	1323	2.33	30	
Acetone	2885	120	1247	175.9	217	20-160	2509	13.9	30	S
Benzene	1182	37	1247	0	94.8	75-125	1255	5.94	30	
Bromodichloromethane	1093	37	1247	0	87.6	70-130	1159	5.93	30	
Bromoform	950.4	37	1247	0	76.2	55-135	981.5	3.23	30	
Bromomethane	538.2	94	1247	0	43.2	50-170	600.5	11	30	S
Carbon disulfide	1147	37	1247	0	92	45-160	1185	3.26	30	
Carbon tetrachloride	1107	37	1247	0	88.8	65-135	1205	8.52	30	
Chlorobenzene	1158	37	1247	0	92.8	75-125	1199	3.49	30	
Chloroethane	618.6	120	1247	0	49.6	40-155	815.7	27.5	30	
Chloroform	1192	37	1247	0	95.6	70-125	1252	4.9	30	
cis-1,2-Dichloroethene	1181	37	1247	0	94.7	65-125	1280	8.06	30	
cis-1,3-Dichloropropene	1006	37	1247	0	80.7	70-125	1031	2.39	30	
Dibromochloromethane	889.9	37	1247	0	71.4	65-135	909.8	2.22	30	
Ethylbenzene	1076	37	1247	0	86.2	75-125	1139	5.69	30	
Methyl tert-butyl ether	1297	37	1247	0	104	75-125	1346	3.68	30	
Methylene chloride	1207	37	1247	0	96.8	55-145	1280	5.92	30	
Styrene	1122	37	1247	0	90	80-138	1114	0.725	30	
Tetrachloroethene	1987	37	1247	0	159	67-167	2051	3.18	30	
Toluene	1157	37	1247	0	92.8	70-125	1195	3.18	30	
trans-1,2-Dichloroethene	1238	37	1247	0	99.2	65-135	1328	7.05	30	
trans-1,3-Dichloropropene	913.6	37	1247	0	73.2	59-129	897.4	1.79	30	
Trichloroethene	1415	37	1247	0	113	75-125	1381	2.41	30	
Vinyl chloride	1265	37	1247	0	101	60-125	1381	8.77	30	
Xylenes, Total	3243	110	3742	0	86.7	75-125	3410	5.01	30	
Surr: 1,2-Dichloroethane-d4	*1264*	0	*1247*	0	*101*	*70-130*	1293	*2.24*	*30*	
Surr: 4-Bromofluorobenzene	*1397*	0	*1247*	0	*112*	*70-130*	1329	*4.99*	*30*	
Surr: Dibromofluoromethane	*1221*	0	*1247*	0	*97.9*	*70-130*	1215	*0.461*	*30*	
Surr: Toluene-d8	*1209*	0	*1247*	0	*96.9*	*70-130*	1180	*2.4*	*30*	

The following samples were analyzed in this batch:

1704626-23A	1704626-24A	1704626-25A
1704626-26A	1704626-28A	1704626-29A
1704626-30A	1704626-31A	1704626-32A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209737a** Instrument ID **VMS8** Method: **SW8260B**

MBLK Sample ID: **VBLKS1-170414-R209737a** Units: **µg/Kg** Analysis Date: **4/14/2017 12:59 PM**

Client ID: Run ID: **VMS8_170414A** SeqNo: **4379470** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	5.0								
1,1,2,2-Tetrachloroethane	U	5.0								
1,1,2-Trichloroethane	U	5.0								
1,1-Dichloroethane	U	5.0								
1,1-Dichloroethene	U	5.0								
1,2-Dichloroethane	U	5.0								
1,2-Dichloropropane	U	5.0								
2-Butanone	U	10								
2-Hexanone	U	5.0								
4-Methyl-2-pentanone	U	5.0								
Acetone	U	10								
Benzene	U	5.0								
Bromodichloromethane	U	5.0								
Bromoform	U	5.0								
Bromomethane	U	10								
Carbon disulfide	U	5.0								
Carbon tetrachloride	U	5.0								
Chlorobenzene	U	5.0								
Chloroethane	U	5.0								
Chloroform	U	5.0								
Chloromethane	U	10								
cis-1,2-Dichloroethene	U	5.0								
cis-1,3-Dichloropropene	U	5.0								
Dibromochloromethane	U	5.0								
Ethylbenzene	U	5.0								
Methyl tert-butyl ether	U	5.0								
Methylene chloride	U	5.0								
Styrene	U	5.0								
Tetrachloroethene	U	5.0								
Toluene	U	5.0								
trans-1,2-Dichloroethene	U	5.0								
trans-1,3-Dichloropropene	U	5.0								
Trichloroethene	U	5.0								
Vinyl chloride	U	5.0								
Xylenes, Total	U	5.0								
Surr: 1,2-Dichloroethane-d4	*18.41*	0	*20*	0	*92*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.96*	0	*20*	0	*99.8*	*75-120*	0			
Surr: Dibromofluoromethane	*19.7*	0	*20*	0	*98.5*	*85-115*	0			
Surr: Toluene-d8	*19.98*	0	*20*	0	*99.9*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209737a** Instrument ID **VMS8** Method: **SW8260B**

LCS Sample ID: **VLCSS1-170414-R209737a** Units: **µg/Kg** Analysis Date: **4/14/2017 12:15 PM**

Client ID: Run ID: **VMS8_170414A** SeqNo: **4379469** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	24.05	5.0	20	0	120	70-135	0			
1,1,2,2-Tetrachloroethane	19.95	5.0	20	0	99.8	55-130	0			
1,1,2-Trichloroethane	21.65	5.0	20	0	108	60-125	0			
1,1-Dichloroethane	24.33	5.0	20	0	122	75-125	0			
1,1-Dichloroethene	24.7	5.0	20	0	124	65-135	0			
1,2-Dichloroethane	21.81	5.0	20	0	109	70-135	0			
1,2-Dichloropropane	21.7	5.0	20	0	108	70-120	0			
2-Butanone	17.84	10	20	0	89.2	30-160	0			
2-Hexanone	17.43	5.0	20	0	87.2	45-145	0			
4-Methyl-2-pentanone	23.54	5.0	20	0	118	74-173	0			
Acetone	13.23	10	20	0	66.2	20-160	0			
Benzene	22.72	5.0	20	0	114	75-125	0			
Bromodichloromethane	22.56	5.0	20	0	113	70-130	0			
Bromoform	18.1	5.0	20	0	90.5	55-135	0			
Bromomethane	26.29	10	20	0	131	30-160	0			
Carbon disulfide	26.34	5.0	20	0	132	45-160	0			
Carbon tetrachloride	23.74	5.0	20	0	119	65-135	0			
Chlorobenzene	22.54	5.0	20	0	113	75-125	0			
Chloroethane	24.61	5.0	20	0	123	40-155	0			
Chloroform	22.06	5.0	20	0	110	70-125	0			
Chloromethane	20.1	10	20	0	100	50-130	0			
cis-1,2-Dichloroethene	23.63	5.0	20	0	118	65-125	0			
cis-1,3-Dichloropropene	21.98	5.0	20	0	110	70-125	0			
Dibromochloromethane	18.79	5.0	20	0	94	65-135	0			
Ethylbenzene	23.01	5.0	20	0	115	75-125	0			
Methyl tert-butyl ether	19.9	5.0	20	0	99.5	75-125	0			
Methylene chloride	24.54	5.0	20	0	123	55-140	0			
Styrene	23.05	5.0	20	0	115	74-134	0			
Tetrachloroethene	27.79	5.0	20	0	139	81-171	0			
Toluene	23.76	5.0	20	0	119	70-125	0			
trans-1,2-Dichloroethene	23.81	5.0	20	0	119	65-135	0			
trans-1,3-Dichloropropene	20.86	5.0	20	0	104	65-125	0			
Trichloroethene	23.06	5.0	20	0	115	75-125	0			
Vinyl chloride	21.82	5.0	20	0	109	60-125	0			
Xylenes, Total	70.07	5.0	60	0	117	75-125	0			
Surr: 1,2-Dichloroethane-d4	*19.11*	0	*20*	0	*95.6*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*20.96*	0	*20*	0	*105*	*75-120*	0			
Surr: Dibromofluoromethane	*20.65*	0	*20*	0	*103*	*85-115*	0			
Surr: Toluene-d8	*20.59*	0	*20*	0	*103*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209737a** Instrument ID **VMS8** Method: **SW8260B**

MS Sample ID: **1704626-01A MS** Units: **µg/Kg** Analysis Date: **4/14/2017 06:22 PM**

Client ID: **TDSB 21 (2-4) - 041017** Run ID: **VMS8_170414A** SeqNo: **4379474** Prep Date: DF: **0.992**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	17.36	5.0	19.84	0	87.5	70-135	0			
1,1,2,2-Tetrachloroethane	15.42	5.0	19.84	0	77.7	55-130	0			
1,1,2-Trichloroethane	16.69	5.0	19.84	0	84.1	60-125	0			
1,1-Dichloroethane	19.14	5.0	19.84	0	96.4	75-125	0			
1,1-Dichloroethene	18.94	5.0	19.84	0	95.4	65-135	0			
1,2-Dichloroethane	17.6	5.0	19.84	0	88.7	70-135	0			
1,2-Dichloropropane	15.94	5.0	19.84	0	80.4	70-120	0			
2-Butanone	19.97	9.9	19.84	0	101	30-160	0			
2-Hexanone	13.94	5.0	19.84	0	70.2	45-145	0			
4-Methyl-2-pentanone	18.96	5.0	19.84	0	95.6	74-173	0			
Acetone	18	9.9	19.84	18.2	-1	20-160	0			S
Benzene	16.97	5.0	19.84	0	85.6	75-125	0			
Bromodichloromethane	16.69	5.0	19.84	0	84.1	70-130	0			
Bromoform	12.5	5.0	19.84	0	63	55-135	0			
Bromomethane	18.11	9.9	19.84	0	91.3	30-160	0			
Carbon disulfide	19.24	5.0	19.84	0	97	45-160	0			
Carbon tetrachloride	17.12	5.0	19.84	0	86.3	65-135	0			
Chlorobenzene	15.54	5.0	19.84	0	78.4	75-125	0			
Chloroethane	19.27	5.0	19.84	0	97.2	40-155	0			
Chloroform	17.68	5.0	19.84	0	89.1	70-125	0			
Chloromethane	18.5	9.9	19.84	0	93.2	50-130	0			
cis-1,2-Dichloroethene	18.19	5.0	19.84	0	91.7	65-125	0			
cis-1,3-Dichloropropene	15.5	5.0	19.84	0	78.2	70-125	0			
Dibromochloromethane	13.28	5.0	19.84	0	67	65-135	0			
Ethylbenzene	16	5.0	19.84	0	80.6	75-125	0			
Methyl tert-butyl ether	17.1	5.0	19.84	0	86.2	75-125	0			
Methylene chloride	17.82	5.0	19.84	0	89.8	55-140	0			
Styrene	15.52	5.0	19.84	0	78.2	74-134	0			
Tetrachloroethene	22.83	5.0	19.84	0	115	81-171	0			
Toluene	16.29	5.0	19.84	0	82.1	70-125	0			
trans-1,2-Dichloroethene	18.1	5.0	19.84	0	91.2	65-135	0			
trans-1,3-Dichloropropene	14.12	5.0	19.84	0	71.2	65-125	0			
Trichloroethene	18.16	5.0	19.84	1.44	84.3	75-125	0			
Vinyl chloride	19.37	5.0	19.84	0	97.6	60-125	0			
Xylenes, Total	47.47	5.0	59.52	0	79.8	75-125	0			
Surr: 1,2-Dichloroethane-d4	*22.5*	0	*19.84*	0	*113*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*20.77*	0	*19.84*	0	*105*	*75-120*	0			
Surr: Dibromofluoromethane	*20.96*	0	*19.84*	0	*106*	*85-115*	0			
Surr: Toluene-d8	*19.53*	0	*19.84*	0	*98.4*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209737a** Instrument ID **VMS8** Method: **SW8260B**

MSD Sample ID: **1704626-01A MSD** Units: **µg/Kg** Analysis Date: **4/14/2017 06:38 PM**

Client ID: **TDSB 21 (2-4) - 041017** Run ID: **VMS8_170414A** SeqNo: **4379475** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	17.03	5.0	20	0	85.2	70-135	17.36	1.92	30	
1,1,2,2-Tetrachloroethane	13.97	5.0	20	0	69.8	55-130	15.42	9.84	30	
1,1,2-Trichloroethane	16.34	5.0	20	0	81.7	60-125	16.69	2.09	30	
1,1-Dichloroethane	18.24	5.0	20	0	91.2	75-125	19.14	4.79	30	
1,1-Dichloroethene	18.52	5.0	20	0	92.6	65-135	18.94	2.23	30	
1,2-Dichloroethane	17.08	5.0	20	0	85.4	70-135	17.6	2.99	30	
1,2-Dichloropropane	17.09	5.0	20	0	85.4	70-120	15.94	6.95	30	
2-Butanone	16.88	10	20	0	84.4	30-160	19.97	16.8	30	
2-Hexanone	15.11	5.0	20	0	75.6	45-145	13.94	8.07	30	
4-Methyl-2-pentanone	18.26	5.0	20	0	91.3	74-173	18.96	3.75	30	
Acetone	19.53	10	20	18.2	6.63	20-160	18	8.13	30	S
Benzene	16.61	5.0	20	0	83	75-125	16.97	2.16	30	
Bromodichloromethane	16.87	5.0	20	0	84.4	70-130	16.69	1.1	30	
Bromoform	12.55	5.0	20	0	62.8	55-135	12.5	0.406	30	
Bromomethane	17.49	10	20	0	87.4	30-160	18.11	3.5	30	
Carbon disulfide	18.32	5.0	20	0	91.6	45-160	19.24	4.92	30	
Carbon tetrachloride	16.45	5.0	20	0	82.2	65-135	17.12	4	30	
Chlorobenzene	14.88	5.0	20	0	74.4	75-125	15.54	4.37	30	S
Chloroethane	17.72	5.0	20	0	88.6	40-155	19.27	8.4	30	
Chloroform	16.79	5.0	20	0	84	70-125	17.68	5.15	30	
Chloromethane	18.47	10	20	0	92.4	50-130	18.5	0.167	30	
cis-1,2-Dichloroethene	17.7	5.0	20	0	88.5	65-125	18.19	2.75	30	
cis-1,3-Dichloropropene	15.44	5.0	20	0	77.2	70-125	15.5	0.42	30	
Dibromochloromethane	13.88	5.0	20	0	69.4	65-135	13.28	4.4	30	
Ethylbenzene	15.3	5.0	20	0	76.5	75-125	16	4.48	30	
Methyl tert-butyl ether	17.18	5.0	20	0	85.9	75-125	17.1	0.455	30	
Methylene chloride	18.4	5.0	20	0	92	55-140	17.82	3.22	30	
Styrene	15.12	5.0	20	0	75.6	74-134	15.52	2.64	30	
Tetrachloroethene	22.22	5.0	20	0	111	81-171	22.83	2.69	30	
Toluene	15.9	5.0	20	0	79.5	70-125	16.29	2.41	30	
trans-1,2-Dichloroethene	17.6	5.0	20	0	88	65-135	18.1	2.82	30	
trans-1,3-Dichloropropene	13.94	5.0	20	0	69.7	65-125	14.12	1.26	30	
Trichloroethene	17.69	5.0	20	1.44	81.2	75-125	18.16	2.64	30	
Vinyl chloride	18.6	5.0	20	0	93	60-125	19.37	4.08	30	
Xylenes, Total	45.76	5.0	60	0	76.3	75-125	47.47	3.66	30	
Surr: 1,2-Dichloroethane-d4	*21.68*	0	*20*	0	*108*	*70-120*	22.5	*3.71*	*30*	
Surr: 4-Bromofluorobenzene	*20.62*	0	*20*	0	*103*	*75-120*	20.77	*0.737*	*30*	
Surr: Dibromofluoromethane	*21.02*	0	*20*	0	*105*	*85-115*	20.96	*0.281*	*30*	
Surr: Toluene-d8	*19.7*	0	*20*	0	*98.5*	*85-120*	19.53	*0.854*	*30*	

The following samples were analyzed in this batch: 1704626-01A 1704626-02A 1704626-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209897** Instrument ID **VMS8** Method: **SW8260B**

MBLK Sample ID: **VBLKS1-170417-R209897** Units: **µg/Kg** Analysis Date: **4/17/2017 01:07 PM**

Client ID: Run ID: **VMS8_170417A** SeqNo: **4381259** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	5.0								
1,1,2,2-Tetrachloroethane	U	5.0								
1,1,2-Trichloroethane	U	5.0								
1,1-Dichloroethane	U	5.0								
1,1-Dichloroethene	U	5.0								
1,2-Dichloroethane	U	5.0								
1,2-Dichloropropane	U	5.0								
2-Butanone	U	10								
2-Hexanone	U	5.0								
4-Methyl-2-pentanone	U	5.0								
Acetone	U	10								
Benzene	U	5.0								
Bromodichloromethane	U	5.0								
Bromoform	U	5.0								
Bromomethane	U	10								
Carbon disulfide	U	5.0								
Carbon tetrachloride	U	5.0								
Chlorobenzene	U	5.0								
Chloroethane	U	5.0								
Chloroform	U	5.0								
Chloromethane	U	10								
cis-1,2-Dichloroethene	U	5.0								
cis-1,3-Dichloropropene	U	5.0								
Dibromochloromethane	U	5.0								
Ethylbenzene	U	5.0								
Methyl tert-butyl ether	U	5.0								
Methylene chloride	2.43	5.0								J
Styrene	U	5.0								
Tetrachloroethene	U	5.0								
Toluene	U	5.0								
trans-1,2-Dichloroethene	U	5.0								
trans-1,3-Dichloropropene	U	5.0								
Trichloroethene	U	5.0								
Vinyl chloride	U	5.0								
Xylenes, Total	U	5.0								
Surr: 1,2-Dichloroethane-d4	*20.77*	0	*20*	0	*104*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*20.54*	0	*20*	0	*103*	*75-120*	0			
Surr: Dibromofluoromethane	*19.68*	0	*20*	0	*98.4*	*85-115*	0			
Surr: Toluene-d8	*21.09*	0	*20*	0	*105*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209897** Instrument ID **VMS8** Method: **SW8260B**

LCS Sample ID: **VLCSS1-170417-R209897** Units: **µg/Kg** Analysis Date: **4/17/2017 11:54 AM**

Client ID: Run ID: **VMS8_170417A** SeqNo: **4381258** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.4	5.0	20	0	107	70-135	0			
1,1,2,2-Tetrachloroethane	17.33	5.0	20	0	86.6	55-130	0			
1,1,2-Trichloroethane	19.47	5.0	20	0	97.4	60-125	0			
1,1-Dichloroethane	22.74	5.0	20	0	114	75-125	0			
1,1-Dichloroethene	24.07	5.0	20	0	120	65-135	0			
1,2-Dichloroethane	19.4	5.0	20	0	97	70-135	0			
1,2-Dichloropropane	19.62	5.0	20	0	98.1	70-120	0			
2-Butanone	16.09	10	20	0	80.4	30-160	0			
2-Hexanone	16.15	5.0	20	0	80.8	45-145	0			
4-Methyl-2-pentanone	20.66	5.0	20	0	103	74-173	0			
Acetone	16.64	10	20	0	83.2	20-160	0			
Benzene	21.23	5.0	20	0	106	75-125	0			
Bromodichloromethane	20.78	5.0	20	0	104	70-130	0			
Bromoform	16.69	5.0	20	0	83.4	55-135	0			
Bromomethane	21.67	10	20	0	108	30-160	0			
Carbon disulfide	25.19	5.0	20	0	126	45-160	0			
Carbon tetrachloride	22.18	5.0	20	0	111	65-135	0			
Chlorobenzene	20.49	5.0	20	0	102	75-125	0			
Chloroethane	22.68	5.0	20	0	113	40-155	0			
Chloroform	20.46	5.0	20	0	102	70-125	0			
Chloromethane	22.01	10	20	0	110	50-130	0			
cis-1,2-Dichloroethene	22.32	5.0	20	0	112	65-125	0			
cis-1,3-Dichloropropene	19.46	5.0	20	0	97.3	70-125	0			
Dibromochloromethane	17.02	5.0	20	0	85.1	65-135	0			
Ethylbenzene	20.81	5.0	20	0	104	75-125	0			
Methyl tert-butyl ether	18.3	5.0	20	0	91.5	75-125	0			
Methylene chloride	22.53	5.0	20	0	113	55-140	0			
Styrene	21.38	5.0	20	0	107	74-134	0			
Tetrachloroethene	28.93	5.0	20	0	145	81-171	0			
Toluene	21.38	5.0	20	0	107	70-125	0			
trans-1,2-Dichloroethene	22.8	5.0	20	0	114	65-135	0			
trans-1,3-Dichloropropene	18.61	5.0	20	0	93	65-125	0			
Trichloroethene	21.22	5.0	20	0	106	75-125	0			
Vinyl chloride	21.79	5.0	20	0	109	60-125	0			
Xylenes, Total	61.88	5.0	60	0	103	75-125	0			
Surr: 1,2-Dichloroethane-d4	*19.75*	0	*20*	0	*98.8*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.82*	0	*20*	0	*99.1*	*75-120*	0			
Surr: Dibromofluoromethane	*21.24*	0	*20*	0	*106*	*85-115*	0			
Surr: Toluene-d8	*20.34*	0	*20*	0	*102*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209897** Instrument ID **VMS8** Method: **SW8260B**

MS Sample ID: **1704868-02A MS** Units: **µg/Kg** Analysis Date: **4/17/2017 06:58 PM**

Client ID: Run ID: **VMS8_170417A** SeqNo: **4381267** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	8	5.0	20	0	40	70-135	0			S
1,1,2,2-Tetrachloroethane	7.28	5.0	20	0	36.4	55-130	0			S
1,1,2-Trichloroethane	8.31	5.0	20	0	41.6	60-125	0			S
1,1-Dichloroethane	8.23	5.0	20	0	41.2	75-125	0			S
1,1-Dichloroethene	8.04	5.0	20	0	40.2	65-135	0			S
1,2-Dichloroethane	8.51	5.0	20	0	42.6	70-135	0			S
1,2-Dichloropropane	7.75	5.0	20	0	38.8	70-120	0			S
2-Butanone	8.98	10	20	15.77	-33.9	30-160	0			JS
2-Hexanone	6.13	5.0	20	0	30.6	45-145	0			S
4-Methyl-2-pentanone	7.97	5.0	20	0	39.8	74-173	0			S
Acetone	9.23	10	20	128.5	-596	20-160	0			JSO
Benzene	7.24	5.0	20	0	36.2	75-125	0			S
Bromodichloromethane	7.49	5.0	20	0	37.4	70-130	0			S
Bromoform	6.33	5.0	20	0	31.6	55-135	0			S
Bromomethane	7.4	10	20	0	37	30-160	0			J
Carbon disulfide	8.49	5.0	20	0	42.4	45-160	0			S
Carbon tetrachloride	7.61	5.0	20	0	38	65-135	0			S
Chlorobenzene	6.03	5.0	20	0	30.2	75-125	0			S
Chloroethane	8.47	5.0	20	0	42.4	40-155	0			
Chloroform	7.62	5.0	20	0	38.1	70-125	0			S
Chloromethane	8.86	10	20	0	44.3	50-130	0			JS
cis-1,2-Dichloroethene	7.83	5.0	20	0	39.2	65-125	0			S
cis-1,3-Dichloropropene	6.81	5.0	20	0	34	70-125	0			S
Dibromochloromethane	6.87	5.0	20	0	34.4	65-135	0			S
Ethylbenzene	5.78	5.0	20	0	28.9	75-125	0			S
Methyl tert-butyl ether	8.63	5.0	20	0	43.2	75-125	0			S
Methylene chloride	8.72	5.0	20	0	43.6	55-140	0			S
Styrene	5.29	5.0	20	0	26.4	74-134	0			S
Tetrachloroethene	8.6	5.0	20	0	43	81-171	0			S
Toluene	8.19	5.0	20	0.3808	39	70-125	0			S
trans-1,2-Dichloroethene	7.75	5.0	20	0	38.8	65-135	0			S
trans-1,3-Dichloropropene	6.4	5.0	20	0	32	65-125	0			S
Trichloroethene	7.39	5.0	20	0	37	75-125	0			S
Vinyl chloride	9.06	5.0	20	0	45.3	60-125	0			S
Xylenes, Total	17.79	5.0	60	0	29.6	75-125	0			S
Surr: 1,2-Dichloroethane-d4	*22.86*	0	*20*	0	*114*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.49*	0	*20*	0	*97.4*	*75-120*	0			
Surr: Dibromofluoromethane	*21.97*	0	*20*	0	*110*	*85-115*	0			
Surr: Toluene-d8	*19.6*	0	*20*	0	*98*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209897** Instrument ID **VMS8** Method: **SW8260B**

MSD Sample ID: **1704868-02A MSD** Units: **µg/Kg** Analysis Date: **4/17/2017 07:14 PM**

Client ID: Run ID: **VMS8_170417A** SeqNo: **4381268** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	18.59	5.0	20	0	93	70-135	8	79.7	30	R
1,1,2,2-Tetrachloroethane	17.52	5.0	20	0	87.6	55-130	7.28	82.6	30	R
1,1,2-Trichloroethane	19.49	5.0	20	0	97.4	60-125	8.31	80.4	30	R
1,1-Dichloroethane	20.31	5.0	20	0	102	75-125	8.23	84.7	30	R
1,1-Dichloroethene	19.84	5.0	20	0	99.2	65-135	8.04	84.6	30	R
1,2-Dichloroethane	19.16	5.0	20	0	95.8	70-135	8.51	77	30	R
1,2-Dichloropropane	17.53	5.0	20	0	87.6	70-120	7.75	77.4	30	R
2-Butanone	21.74	10	20	15.77	29.9	30-160	8.98	83.1	30	SR
2-Hexanone	15.15	5.0	20	0	75.8	45-145	6.13	84.8	30	R
4-Methyl-2-pentanone	21.6	5.0	20	0	108	74-173	7.97	92.2	30	R
Acetone	27.2	10	20	128.5	-507	20-160	9.23	98.7	30	SRO
Benzene	17.69	5.0	20	0	88.4	75-125	7.24	83.8	30	R
Bromodichloromethane	19.13	5.0	20	0	95.6	70-130	7.49	87.5	30	R
Bromoform	15.1	5.0	20	0	75.5	55-135	6.33	81.8	30	R
Bromomethane	17.05	10	20	0	85.2	30-160	7.4	78.9	30	R
Carbon disulfide	19.91	5.0	20	0	99.6	45-160	8.49	80.4	30	R
Carbon tetrachloride	17.65	5.0	20	0	88.2	65-135	7.61	79.5	30	R
Chlorobenzene	16.26	5.0	20	0	81.3	75-125	6.03	91.8	30	R
Chloroethane	20.06	5.0	20	0	100	40-155	8.47	81.2	30	R
Chloroform	18.63	5.0	20	0	93.2	70-125	7.62	83.9	30	R
Chloromethane	19.24	10	20	0	96.2	50-130	8.86	73.9	30	R
cis-1,2-Dichloroethene	19.01	5.0	20	0	95	65-125	7.83	83.3	30	R
cis-1,3-Dichloropropene	15.8	5.0	20	0	79	70-125	6.81	79.5	30	R
Dibromochloromethane	15.59	5.0	20	0	78	65-135	6.87	77.6	30	R
Ethylbenzene	16.37	5.0	20	0	81.8	75-125	5.78	95.6	30	R
Methyl tert-butyl ether	20.36	5.0	20	0	102	75-125	8.63	80.9	30	R
Methylene chloride	20.81	5.0	20	0	104	55-140	8.72	81.9	30	R
Styrene	15.89	5.0	20	0	79.4	74-134	5.29	100	30	R
Tetrachloroethene	23.33	5.0	20	0	117	81-171	8.6	92.3	30	R
Toluene	18.57	5.0	20	0.3808	90.9	70-125	8.19	77.6	30	R
trans-1,2-Dichloroethene	19.26	5.0	20	0	96.3	65-135	7.75	85.2	30	R
trans-1,3-Dichloropropene	15.92	5.0	20	0	79.6	65-125	6.4	85.3	30	R
Trichloroethene	17.92	5.0	20	0	89.6	75-125	7.39	83.2	30	R
Vinyl chloride	19.62	5.0	20	0	98.1	60-125	9.06	73.6	30	R
Xylenes, Total	49.15	5.0	60	0	81.9	75-125	17.79	93.7	30	R
Surr: 1,2-Dichloroethane-d4	*22.72*	0	*20*	0	*114*	*70-120*	22.86	*0.614*	*30*	
Surr: 4-Bromofluorobenzene	*20.37*	0	*20*	0	*102*	*75-120*	19.49	*4.42*	*30*	
Surr: Dibromofluoromethane	*21.43*	0	*20*	0	*107*	*85-115*	21.97	*2.49*	*30*	
Surr: Toluene-d8	*19.74*	0	*20*	0	*98.7*	*85-120*	19.6	*0.712*	*30*	

The following samples were analyzed in this batch: 1704626-21A 1704626-34A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209726** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R209726** Units: **% of sample** Analysis Date: **4/13/2017 06:01 PM**

Client ID: Run ID: **MOIST_170413D** SeqNo: **4374424** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.04	0.050								J

LCS Sample ID: **LCS-R209726** Units: **% of sample** Analysis Date: **4/13/2017 06:01 PM**

Client ID: Run ID: **MOIST_170413D** SeqNo: **4374423** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1704626-01B DUP** Units: **% of sample** Analysis Date: **4/13/2017 06:01 PM**

Client ID: **TDSB 21 (2-4) - 041017** Run ID: **MOIST_170413D** SeqNo: **4374411** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.59	0.050	0	0	0		16.12	19.4	5	R

DUP Sample ID: **1704626-09B DUP** Units: **% of sample** Analysis Date: **4/13/2017 06:01 PM**

Client ID: **TDSB 27 (4-6) - 041017** Run ID: **MOIST_170413D** SeqNo: **4374420** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.49	0.050	0	0	0		18.59	6.1	5	R

The following samples were analyzed in this batch:

1704626-01B	1704626-02B	1704626-03B
1704626-04B	1704626-05B	1704626-06B
1704626-07B	1704626-08B	1704626-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209895** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R209895** Units: **% of sample** Analysis Date: **4/14/2017 12:39 PM**
Client ID: Run ID: **MOIST_170414A** SeqNo: **4379142** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.050								

LCS Sample ID: **LCS-R209895** Units: **% of sample** Analysis Date: **4/14/2017 12:39 PM**
Client ID: Run ID: **MOIST_170414A** SeqNo: **4379141** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1704626-14B DUP** Units: **% of sample** Analysis Date: **4/14/2017 12:39 PM**
Client ID: **TDSB 10 (6-8) - 041017** Run ID: **MOIST_170414A** SeqNo: **4379121** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	26.37	0.050	0	0	0		26.26	0.418	5	

DUP Sample ID: **1704626-23B DUP** Units: **% of sample** Analysis Date: **4/14/2017 12:39 PM**
Client ID: **TDSB 09 (6-8) - 041117** Run ID: **MOIST_170414A** SeqNo: **4379133** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	20.29	0.050	0	0	0		19.88	2.04	5	

The following samples were analyzed in this batch:

1704626-10B	1704626-11B	1704626-12B
1704626-13B	1704626-14B	1704626-15B
1704626-16B	1704626-17B	1704626-18B
1704626-19B	1704626-20B	1704626-21B
1704626-23B	1704626-24B	1704626-25B
1704626-26B	1704626-28B	1704626-29B
1704626-30B	1704626-31B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1704626
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R209896** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R209896** Units: **% of sample** Analysis Date: **4/14/2017 02:11 PM**

Client ID: Run ID: **MOIST_170414B** SeqNo: **4379167** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.050								

LCS Sample ID: **LCS-R209896** Units: **% of sample** Analysis Date: **4/14/2017 02:11 PM**

Client ID: Run ID: **MOIST_170414B** SeqNo: **4379166** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1704626-32B DUP** Units: **% of sample** Analysis Date: **4/14/2017 02:11 PM**

Client ID: **TDSB 03 (8-10) - 041117** Run ID: **MOIST_170414B** SeqNo: **4379145** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.74	0.050	0	0	0		20.51	3.83	5	

DUP Sample ID: **1704704-12A DUP** Units: **% of sample** Analysis Date: **4/14/2017 02:11 PM**

Client ID: Run ID: **MOIST_170414B** SeqNo: **4379159** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.37	0.050	0	0	0		11.23	1.24	5	

The following samples were analyzed in this batch: 1704626-32B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cincinnati, OH +1 513 733 5336
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Houston, TX +1 281 530 5656
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Spring City, PA +1 610 948 4903
Salt Lake City, UT +1 801 266 7700
South Charleston, WV +1 304 356 3168
York, PA +1 717 505 5280

Chain of Custody Form

COC ID: 43172

ALS Project Manager:

ALS Work Order #: 1704626

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Former Teledyne Site	A	VOCs
Work Order		Project Number		B	PAHs/PCBs/Pesticides
Company Name	Tetra Tech EM Inc.	Bill To Company	Tetra Tech EM Inc.	C	RCRA Metals
Send Report To	Dave Franc	Invoice Attn		D	Grain Size
Address	1 South Wacker Dr Suite 3700	Address	1 South Wacker Dr Suite 3700	E	Moisture
				F	
City/State/Zip	Chicago, IL 60606	City/State/Zip	Chicago, IL 60606	G	
Phone	(312) 201-7411	Phone	(312) 201-7411	H	
Fax	(312) 938-0118	Fax	(312) 938-0118	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TDSB21(2-4)-041017	4-10-17	1015	Soil	7	4	✓	✓	✓		✓						
2	TDSB15(4-6)-041017		1045			4	✓	✓	✓		✓						
3	TDSB16(2-4)-041017		1055			4	✓	✓	✓		✓						
4	TDSB14(4-6)-041017		1120			4	✓	✓	✓		✓						
5	TDSB26(2-4)-041017		1135			4	✓	✓	✓		✓						
6	TDSB26(4-6)-041017		1140			4	✓	✓	✓		✓						
7	TDSB31(2-4)-041017		1155			4	✓	✓	✓		✓						
8	TDSB27(2-4)-041017		1210			4	✓	✓	✓		✓						
9	TDSB27(4-6)-041017		1215			4	✓	✓	✓		✓						
10	TDSB25(4-6)-041017		1230			4	✓	✓	✓		✓						

Sampler(s) Please Print & Sign: Ashley Weimer Ashley Weimer

Shipment Method: Fedex

Turnaround Time in Business Days (BD): ☐ Other ____ ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Ashley Weimer	4-10-17	1700	FedEx
Relinquished by: FedEx	Date: 4/12/17	Time: 0900	Received by (Laboratory):
Logged by (Laboratory): KEW	Date: 4/12/17	Time: 1415	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp
SR2	4.6°C
	3.2°C
	3.8°C

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other ____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

COC ID: 43171

ALS Project Manager:

ALS Work Order #: 1704626

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Former Teledyne Site	A	VOCs
Work Order		Project Number		B	PAHs/PCBs/Pesticides
Company Name	Tetra Tech EM Inc.	Bill To Company	Tetra Tech EM Inc.	C	RCRA Metals
Send Report To	Dave Frano	Invoice Attn		D	Grain Size
Address	1 South Wacker Dr Suite 3700	Address	1 South Wacker Dr Suite 3700	E	Moisture
				F	
City/State/Zip	Chicago, IL 60606	City/State/Zip	Chicago, IL 60606	G	
Phone	(312) 201-7411	Phone	(312) 201-7411	H	
Fax	(312) 938-0118	Fax	(312) 938-0118	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
11	TDSB28(2-4)-041017	4-10-17	1340	Soil	7	4	✓	✓	✓		✓						
12	TDSB28(2-4)Dup-041017		1342				✓	✓	✓		✓						
13	TDSB28(4-6)-041017		1345				✓	✓	✓		✓						
14	TDSB10 (6-8)-041017		1400				✓	✓	✓		✓						
15	TDSB30 (0-2)-041017		1405				✓	✓	✓		✓						
16	TDSB30 (4-6)-041017		1410				✓	✓	✓		✓						
17	TDSB29(4-6)-041017		1415				✓	✓	✓		✓						
18	TDSB13(4-6)-041017		1535				✓	✓	✓		✓						
19	TDSB11(6-8)-041017		1625				✓	✓	✓		✓						
20	TDSB12(6-8)-041017		1640				✓	✓	✓		✓						

Sampler(s) Please Print & Sign: Ashley Weimer Ashley Weimer

Shipment Method: FedEx

Turnaround Time in Business Days (BD): ☐ Other ____ ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Ashley Weimer	4-11-17	1700	FedEx
FedEx	4/12/17	0900	Received by (Laboratory):
Logged by (Laboratory): Kev	4/12/17	1415	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other ____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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South Charleston, WV +1 304 356 3168
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Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

COC ID: 43170

ALS Project Manager:

ALS Work Order #: 1704626

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Former Teledyne Site	A	VOCs
Work Order		Project Number		B	PAHs/PCBs/Pesticides
Company Name	Tetra Tech EM Inc	Bill To Company	Tetra Tech EM Inc.	C	RCRA Metals
Send Report To	Dave Franc	Invoice Attn		D	Grain Size
Address	1 South Wacker Dr Suite 3700	Address	1 South Wacker Dr Suite 3700	E	Moisture
				F	
City/State/Zip	Chicago, IL 60606	City/State/Zip	Chicago, IL 60606	G	
Phone	(312) 201-7411	Phone	(312) 201-7411	H	
Fax	(312) 938-0118	Fax	(312) 938-0118	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
21	TDSB04(6-8)-041117	4-11-17	1100	Soil	7	4	✓	✓	✓		✓						
22	TDSB04(12-14)-041117		1105			1				✓							
23	TDSB09(6-8)-041117		1120			4	✓	✓	✓		✓						
24	TDSB24(4-6)-041117		1145			4	✓	✓	✓		✓						
25	TDSB24(4-6)Dup-041117		1150			4	✓	✓	✓		✓						
26	TDSB2(6-8)-041117		1215			4	✓	✓	✓		✓						
27	TDSB2(12-14)-041117		1220			1				✓							
28	TDSB2(8-10)-041117		1218			4	✓	✓	✓		✓						
29	TDSB22(4-6)-041117		1245			4	✓	✓	✓		✓						
30	TDSB22(8-10)-041117		1250			4	✓	✓	✓		✓						

Sampler(s) Please Print & Sign: Ashley Weimer Ashley Weimer

Shipment Method: FedEx

Turnaround Time in Business Days (BD): ☐ Other ____ ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Ashley Weimer	4-11-17	1700	FedEx
Relinquished by: FedEx	Date: 4/12/17	Time: 0900	Received by (Laboratory):
Logged by (Laboratory): Kev	Date: 4/12/17	Time: 1415	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC
☐ Level III Std QC/Raw Date
☐ Level IV SW846/CLP
☐ Other ____
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
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Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070 | Middletown, PA +1 717 944 5541 | Salt Lake City, UT +1 801 266 7700 | York, PA +1 717 505 5280

Chain of Custody Form

COC ID: 43169

ALS Project Manager: | ALS Work Order #: 1704626

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Former Teledyne Site	A	VOCs
Work Order		Project Number		B	PAHs/PCBs/Pesticides
Company Name	Tetra Tech EM Inc.	Bill To Company	Tetra Tech EM Inc.	C	RCRA Metals
Send Report To	Dave Franc	Invoice Attn		D	Grain Size
Address	1 South Wacker Dr Suite 3700	Address	1 South Wacker Dr Suite 3700	E	Moisture
				F	
City/State/Zip	Chicago, IL 60606	City/State/Zip	Chicago, IL 60606	G	
Phone	(312) 201-7411	Phone	(312) 201-7411	H	
Fax	(312) 938-0118	Fax	(312) 938-0118	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
31	TDSB23(0-2)-041117	4-11-17	1305	Soil	7	4	✓	✓	✓		✓						
32	TDSB03(8-10)-041117	↓	1405	↓	↓	4											
33	TDSB03(12-14)-041117	↓	1400	↓	↓	1				✓							
34	TRIP BLANK	—	—	—	—	2	✓		LAB PREPARED								
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Ashley Weimer Ashley Weimer

Shipment Method: Fedex

Turnaround Time in Business Days (BD): ☐ Other ____ ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Ashley Weimer	4-11-17	1700	FedEx
Relinquished by: FedEx	4/12/17	0900	Received by (Laboratory):
Logged by (Laboratory): KW	4/12/17	1415	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other ____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
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Ref:
Dep:

Date: 08Mar17
Wgt: 30.00 LBS

DV: 0.00

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Svc: PRIORITY OVERNIGHT Master 7261 2417 3280
TRCK: 7261 2417 3291

ORIGIN ID:GRRA (262) 719-5242
ASHLEY WEIMER
TETRATECH
175 N. CORPORATE DRIVE
SUITE 100
BROOKFIELD, WI 53045
UNITED STATES US

SHIP DATE: 08MAR17
ACTWGT: 30.00 LB MAN
CAD: 0122071/CAFE3011

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL
3352 128TH AVENUE

HOLLAND MI 494249263
(616) 399-6070
INV:
PO:
REF:
DEPT:

RMA:

FedEx Express

TRK# 0201 7261 2417 3291

WED - 12 APR 10:30A
PRIORITY OVERNIGHT

NA HLMA

49424
MI-US
GRR

FID 936183 11APR17 ZMLA 546C2/CFD6/0C8A

FID 936183 11APR17 ZMLA 546C2/CFD6/0C8A

Ref:
Dep:

Date: 08Mar17
Wgt: 30.00 LBS

DV:

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
0.00 TOTAL: 0.00

Svcs: PRIORITY OVERNIGHT Master 7261 2417 3280
TRCK: 7261 2417 3280

ORIGIN ID:GRRA (262) 719-5242
ASHLEY WEIMER
TETRATECH
175 N. CORPORATE DRIVE
SUITE 100
BROOKFIELD, WI 53045
UNITED STATES US

SHIP DATE: 08MAR17
ACTWGT: 30.00 LB MAN
CAD: 0122071/CAFE3011

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL
3352 128TH AVENUE

HOLLAND MI 494249263
(616) 399-6070
INV:
PO:
REF:
DEPT:

RMA:

FedEx
Express

FedEx
TRK# 0221 7261 2417 3280

WED - 12 APR 10:30A
PRIORITY OVERNIGHT

NA HLMA

49424
MI-US GRR

Ref:
Dep:

Date: 08Mar17
Wgt: 30.00 LBS
DV: 0.00

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Svcs: PRIORITY OVERNIGHT Master 7261 2417 3280
TRCK: 7261 2417 3306

ORIGIN ID:GRRA (262) 719-5242
ASHLEY WEIMER
TETRATECH
175 N. CORPORATE DRIVE
SUITE 100
BROOKFIELD, WI 53045
UNITED STATES US

SHIP DATE: 08MAR17
ACTWGT: 30.00 LB MAN
CAD: 0122071/CAFE3011

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3352 128TH AVENUE

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(616) 399-6070 REF:
INV:
PO: DEPT:

RMA:

FedEx Express

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J161216101001

FedEx
TRK# 7261 2417 3306
0221

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PRIORITY OVERNIGHT

NA HLMA

49424
MI-US GRR

ALS Group, USA

Sample Receipt Checklist

Client Name: **TETRATECH-EM-CHI** Date/Time Received: **12-Apr-17 09:00**

Work Order: **1704626** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 12-Apr-17 (Date) Reviewed by: Joseph Ribar (eSignature) 13-Apr-17 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.6/4.6, 3.2/3.2, 3.8/3.8 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	4/12/2017 2:58:51 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

03-May-2017

Dave Franc
Tetra Tech EM Inc.
1 South Wacker Dr
Suite 3700
Chicago, IL 60606

Re: **Former Teledyne Site** Work Order: **17041383**

Dear Dave,

ALS Environmental received 2 samples on 25-Apr-2017 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 22.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Joseph Ribar

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager

Certificate No: WI: 399084510

ADDRESS 3352 128th Ave Holland, Michigan 49424 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

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RIGHT SOLUTIONS RIGHT PARTNER

ALS Group, USA

Date: 03-May-17

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Work Order: **17041383**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
17041383-01	Soil Cuttings	Soil		4/24/2017 16:20	4/25/2017 10:00	☐
17041383-02	Soil Cuttings	Tclp Extract		4/24/2017 16:20	4/25/2017 10:00	☐

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Work Order: 17041383

Case Narrative

Samples for the above noted Work Order were received on 04/25/2017. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, sample condition, preservation, and temperature compliance.
In order to ensure compliance with NR 149 criteria, please note the following report format:
(1) The Limit of Detection (LOD) is reported as the MDL (Method Detection Limit)
(2) The Limit of Quantitation (LOQ) is reported as the PQL (Practical Quantitation Limit)
(3) All reported concentrations, including those for the LOD and LOQ, are adjusted for any required dilutions
(4) All reported concentrations, including those for the LOD and LOQ, are adjusted for moisture content when samples are reported on a dry weight basis.

Samples were analyzed according to the analytical methodology previously documented in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Detail as to the associated samples can be found at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, acronyms, and units utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics
No deviations or anomalies noted.

Extractable Organics
No deviations or anomalies noted.
Metals
No deviations or anomalies noted.

Wet Chemistry
No deviations or anomalies noted.

ALS Group, USA

Date: *03-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: Soil Cuttings
Collection Date: 4/24/2017 04:20 PM

Work Order: 17041383
Lab ID: 17041383-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/27/17		Analyst: **EB**
Aroclor 1016	U		11	81	µg/Kg-dry	1	4/29/2017 07:18
Aroclor 1221	U		11	81	µg/Kg-dry	1	4/29/2017 07:18
Aroclor 1232	U		11	81	µg/Kg-dry	1	4/29/2017 07:18
Aroclor 1242	U		11	81	µg/Kg-dry	1	4/29/2017 07:18
Aroclor 1248	U		11	81	µg/Kg-dry	1	4/29/2017 07:18
Aroclor 1254	U		7.4	81	µg/Kg-dry	1	4/29/2017 07:18
Aroclor 1260	U		7.4	81	µg/Kg-dry	1	4/29/2017 07:18
Aroclor 1262	U		7.4	81	µg/Kg-dry	1	4/29/2017 07:18
Aroclor 1268	U		7.4	81	µg/Kg-dry	1	4/29/2017 07:18
PCBs, Total	U		7.4	81	µg/Kg-dry	1	4/29/2017 07:18
Surr: Decachlorobiphenyl	*46.9*			*40-140*	*%REC*	1	4/29/2017 07:18
Surr: Tetrachloro-m-xylene	*53.2*			*45-124*	*%REC*	1	4/29/2017 07:18
CYANIDE, REACTIVE		Method:	**SW7.3.3.2**				Analyst: **EE**
Cyanide, Reactive	U		22	120	mg/Kg-dry	1	4/27/2017 14:15
PAINT FILTER (FREE LIQUIDS)		Method:	**SW9095B**				Analyst: **KF**
Free Liquids	**Absent**		**0**		**none**	1	4/26/2017 12:52
MOISTURE		Method:	**SW3550C**				Analyst: **EDL**
Moisture	**20**		**0.025**	**0.050**	**% of sample**	1	4/27/2017 12:43
PH		Method:	**SW9045D**		Prep: EXTRACT / 4/27/17		Analyst: **NW**
pH	**7.53**		**0.10**	**0.100**	**s.u.**	1	5/1/2017 09:35
SULFIDE, REACTIVE		Method:	**SW7.3.4.2**				Analyst: **EE**
Sulfide, Reactive	U		46	120	mg/Kg-dry	1	4/27/2017 14:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: Soil Cuttings
Collection Date: 4/24/2017 04:20 PM

Work Order: 17041383
Lab ID: 17041383-02
Matrix: TCLP EXTRACT

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY BY CVAA		Method:	**SW7470A**		Prep: SW7470 / 5/1/17		Analyst: **JJB**
Mercury	U		0.00019	0.0020	mg/L	1	5/1/2017 16:58
TCLP METALS ANALYSIS BY ICP		Method:	**SW846 6010C**		Prep: SW3005A / 4/28/17		Analyst: **CC**
Arsenic	U		0.016	0.050	mg/L	1	5/2/2017 22:03
Barium	**0.94**		**0.0074**	**0.050**	**mg/L**	1	5/2/2017 22:03
Cadmium	**0.012**	J	**0.0078**	**0.10**	**mg/L**	1	5/2/2017 22:03
Chromium	U		0.0017	0.050	mg/L	1	5/2/2017 22:03
Lead	**1.2**		**0.013**	**0.050**	**mg/L**	1	5/2/2017 22:03
Selenium	U		0.032	0.10	mg/L	1	5/2/2017 22:03
Silver	U		0.0028	0.050	mg/L	1	5/2/2017 22:03
TCLP SEMI-VOLATILE ORGANICS		Method:	**SW8270D**		Prep: SW3510 / 4/28/17		Analyst: **RS**
1,4-Dichlorobenzene	U		6.4	100	µg/L	1	4/28/2017 19:02
2,4,5-Trichlorophenol	U		3.4	100	µg/L	1	4/28/2017 19:02
2,4,6-Trichlorophenol	U		5.0	100	µg/L	1	4/28/2017 19:02
2,4-Dinitrotoluene	U		8.4	100	µg/L	1	4/28/2017 19:02
Hexachloro-1,3-butadiene	U		5.6	100	µg/L	1	4/28/2017 19:02
Hexachlorobenzene	U		8.8	100	µg/L	1	4/28/2017 19:02
Hexachloroethane	U		4.2	100	µg/L	1	4/28/2017 19:02
m-Cresol	U		3.9	100	µg/L	1	4/28/2017 19:02
Nitrobenzene	U		5.2	100	µg/L	1	4/28/2017 19:02
o-Cresol	U		4.0	100	µg/L	1	4/28/2017 19:02
p-Cresol	U		3.9	100	µg/L	1	4/28/2017 19:02
Pentachlorophenol	U		19	100	µg/L	1	4/28/2017 19:02
Pyridine	U		2.0	200	µg/L	1	4/28/2017 19:02
Surr: 2,4,6-Tribromophenol	*42.7*			*38-115*	*%REC*	1	4/28/2017 19:02
Surr: 2-Fluorobiphenyl	*39.6*			*32-100*	*%REC*	1	4/28/2017 19:02
Surr: 2-Fluorophenol	*28.9*			*22-59*	*%REC*	1	4/28/2017 19:02
Surr: 4-Terphenyl-d14	*56.5*			*23-112*	*%REC*	1	4/28/2017 19:02
Surr: Nitrobenzene-d5	*37.3*			*31-93*	*%REC*	1	4/28/2017 19:02
Surr: Phenol-d6	*17.3*			*13-36*	*%REC*	1	4/28/2017 19:02
TCLP VOLATILE ORGANICS		Method:	**SW8260B**		Leachate: SW1311 / 4/27/17		Analyst: **BG**
1,1-Dichloroethene	U		5.5	20	µg/L	20	4/27/2017 14:51
1,2-Dichloroethane	U		3.3	20	µg/L	20	4/27/2017 14:51
2-Butanone	U		12	100	µg/L	20	4/27/2017 14:51
Benzene	**8.4**	J	**6.1**	**20**	**µg/L**	20	4/27/2017 14:51
Carbon tetrachloride	U		6.2	20	µg/L	20	4/27/2017 14:51
Chlorobenzene	U		5.4	20	µg/L	20	4/27/2017 14:51
Chloroform	U		5.1	20	µg/L	20	4/27/2017 14:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: Soil Cuttings
Collection Date: 4/24/2017 04:20 PM

Work Order: 17041383
Lab ID: 17041383-02
Matrix: TCLP EXTRACT

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	U		5.5	20	µg/L	20	4/27/2017 14:51
Trichloroethene	U		6.0	20	µg/L	20	4/27/2017 14:51
Vinyl chloride	U		4.1	20	µg/L	20	4/27/2017 14:51
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	20	4/27/2017 14:51
Surr: 4-Bromofluorobenzene	*98.6*			*70-130*	*%REC*	20	4/27/2017 14:51
Surr: Dibromofluoromethane	*95.1*			*70-130*	*%REC*	20	4/27/2017 14:51
Surr: Toluene-d8	*99.1*			*70-130*	*%REC*	20	4/27/2017 14:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
µg/L	Micrograms per Liter
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
none	
s.u.	Standard Units

ALS Group, USA

Date: 03-May-17

Client: Tetra Tech EM Inc.

Work Order: 17041383

Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101157** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-101157-101157** Units: **µg/Kg** Analysis Date: **4/27/2017 08:32 PM**

Client ID: Run ID: **GC14_170427A** SeqNo: **4401411** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	67								
Aroclor 1221	U	67								
Aroclor 1232	U	67								
Aroclor 1242	U	67								
Aroclor 1248	U	67								
Aroclor 1254	U	67								
Aroclor 1260	U	67								
Aroclor 1262	U	67								
Aroclor 1268	U	67								
PCBs, Total	U	67								
Surr: Decachlorobiphenyl	*24.22*	0	*33.3*	0	*72.7*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*24.54*	0	*33.3*	0	*73.7*	*45-124*	0			

LCS Sample ID: **PLCSS1-101157-101157** Units: **µg/Kg** Analysis Date: **4/27/2017 08:47 PM**

Client ID: Run ID: **GC14_170427A** SeqNo: **4401412** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	749.6	67	833	0	90	50-130	0			
Aroclor 1260	738.6	67	833	0	88.7	50-130	0			
Surr: Decachlorobiphenyl	*22.46*	0	*33.3*	0	*67.5*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*22.3*	0	*33.3*	0	*67*	*45-124*	0			

MS Sample ID: **17041422-26A MS** Units: **µg/Kg** Analysis Date: **4/27/2017 09:15 PM**

Client ID: Run ID: **GC14_170427A** SeqNo: **4401414** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	794.2	67	831.2	0	95.5	40-140	0			
Aroclor 1260	777.9	67	831.2	0	93.6	40-140	0			
Surr: Decachlorobiphenyl	*19.96*	0	*33.23*	0	*60.1*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*22.25*	0	*33.23*	0	*67*	*45-124*	0			

MSD Sample ID: **17041422-26A MSD** Units: **µg/Kg** Analysis Date: **4/27/2017 09:30 PM**

Client ID: Run ID: **GC14_170427A** SeqNo: **4401415** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	791.5	66	829.7	0	95.4	40-140	794.2	0.338	50	
Aroclor 1260	813.9	66	829.7	0	98.1	40-140	777.9	4.52	50	
Surr: Decachlorobiphenyl	*22.49*	0	*33.17*	0	*67.8*	*40-140*	19.96	*11.9*	*50*	
Surr: Tetrachloro-m-xylene	*22.17*	0	*33.17*	0	*66.9*	*45-124*	22.25	*0.366*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101157** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

17041383-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101276** Instrument ID **HG1** Method: **SW7470A**

MBLK Sample ID: **MBLK-101276-101276** Units: **mg/L** Analysis Date: **5/1/2017 04:06 PM**
Client ID: Run ID: **HG1_170501B** SeqNo: **4404922** Prep Date: **5/1/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020								

LCS Sample ID: **LCS-101276-101276** Units: **mg/L** Analysis Date: **5/1/2017 04:09 PM**
Client ID: Run ID: **HG1_170501B** SeqNo: **4404958** Prep Date: **5/1/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00201	0.00020	0.002	0	100	80-120	0			

MS Sample ID: **17041487-01AMS** Units: **mg/L** Analysis Date: **5/1/2017 04:16 PM**
Client ID: Run ID: **HG1_170501B** SeqNo: **4404963** Prep Date: **5/1/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0201	0.0020	0.02	-0.00005	101	75-125	0			

MSD Sample ID: **17041487-01AMSD** Units: **mg/L** Analysis Date: **5/1/2017 04:19 PM**
Client ID: Run ID: **HG1_170501B** SeqNo: **4404964** Prep Date: **5/1/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0202	0.0020	0.02	-0.00005	101	75-125	0.0201	0.496	20	

The following samples were analyzed in this batch: 17041383-02B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101205** Instrument ID **SVMS5** Method: **SW8270D**

MBLK Sample ID: **SBLKW1-101205-101205** Units: **µg/L** Analysis Date: **4/28/2017 04:05 PM**

Client ID: Run ID: **SVMS5_170428A** SeqNo: **4402591** Prep Date: **4/28/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	U	5.0								
2,4,5-Trichlorophenol	U	5.0								
2,4,6-Trichlorophenol	U	5.0								
2,4-Dinitrotoluene	U	5.0								
Hexachloro-1,3-butadiene	U	5.0								
Hexachlorobenzene	U	5.0								
Hexachloroethane	U	5.0								
m-Cresol	U	5.0								
Nitrobenzene	U	5.0								
o-Cresol	U	5.0								
p-Cresol	U	5.0								
Pentachlorophenol	U	5.0								
Pyridine	U	10								
Surr: 2,4,6-Tribromophenol	*31.57*	0	*50*	0	*63.1*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*29.79*	0	*50*	0	*59.6*	*32-100*	0			
Surr: 2-Fluorophenol	*22.17*	0	*50*	0	*44.3*	*22-59*	0			
Surr: 4-Terphenyl-d14	*34.29*	0	*50*	0	*68.6*	*23-112*	0			
Surr: Nitrobenzene-d5	*29.05*	0	*50*	0	*58.1*	*31-93*	0			
Surr: Phenol-d6	*13.48*	0	*50*	0	*27*	*13-36*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101205** Instrument ID **SVMS5** Method: **SW8270D**

LCS Sample ID: **SLCSW1-101205-101205** Units: **µg/L** Analysis Date: **4/28/2017 04:29 PM**

Client ID: Run ID: **SVMS5_170428A** SeqNo: **4402592** Prep Date: **4/28/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	7.75	5.0	20	0	38.8	30-110	0			
2,4,5-Trichlorophenol	10.18	5.0	20	0	50.9	50-110	0			
2,4,6-Trichlorophenol	10.17	5.0	20	0	50.8	50-115	0			
2,4-Dinitrotoluene	10.9	5.0	20	0	54.5	50-120	0			
Hexachloro-1,3-butadiene	6.93	5.0	20	0	34.6	25-105	0			
Hexachlorobenzene	11.61	5.0	20	0	58	50-110	0			
Hexachloroethane	6.92	5.0	20	0	34.6	30-95	0			
m-Cresol	9.67	5.0	20	0	48.4	30-110	0			
Nitrobenzene	9.43	5.0	20	0	47.2	45-110	0			
o-Cresol	10.69	5.0	20	0	53.4	40-110	0			
p-Cresol	9.67	5.0	20	0	48.4	30-110	0			
Pentachlorophenol	12.01	5.0	20	0	60	40-115	0			
Pyridine	6.73	10	20	0	33.6	10-71	0			J
Surr: 2,4,6-Tribromophenol	*25.21*	0	*50*	0	*50.4*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*24.76*	0	*50*	0	*49.5*	*32-100*	0			
Surr: 2-Fluorophenol	*16.82*	0	*50*	0	*33.6*	*22-59*	0			
Surr: 4-Terphenyl-d14	*29.17*	0	*50*	0	*58.3*	*23-112*	0			
Surr: Nitrobenzene-d5	*24.04*	0	*50*	0	*48.1*	*31-93*	0			
Surr: Phenol-d6	*10.98*	0	*50*	0	*22*	*13-36*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101205** Instrument ID **SVMS5** Method: **SW8270D**

MS Sample ID: **17041383-02B MS** Units: **µg/L** Analysis Date: **4/28/2017 06:15 PM**

Client ID: **Soil Cuttings** Run ID: **SVMS5_170428A** SeqNo: **4402593** Prep Date: **4/28/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	230.6	100	400	0	57.6	30-110	0			
2,4,5-Trichlorophenol	236.4	100	400	0	59.1	50-110	0			
2,4,6-Trichlorophenol	242.4	100	400	0	60.6	50-115	0			
2,4-Dinitrotoluene	253.2	100	400	0	63.3	50-120	0			
Hexachloro-1,3-butadiene	212	100	400	0	53	25-105	0			
Hexachlorobenzene	263	100	400	0	65.8	50-110	0			
Hexachloroethane	235.6	100	400	0	58.9	30-95	0			
m-Cresol	212	100	400	0	53	30-110	0			
Nitrobenzene	227.2	100	400	0	56.8	45-110	0			
o-Cresol	228	100	400	0	57	40-110	0			
p-Cresol	212	100	400	0	53	30-110	0			
Pentachlorophenol	262	100	400	0	65.5	40-115	0			
Pyridine	157.4	200	400	0	39.4	10-80	0			J
Surr: 2,4,6-Tribromophenol	*576.2*	0	*1000*	0	*57.6*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*599.6*	0	*1000*	0	*60*	*32-100*	0			
Surr: 2-Fluorophenol	*395.2*	0	*1000*	0	*39.5*	*22-59*	0			
Surr: 4-Terphenyl-d14	*657.8*	0	*1000*	0	*65.8*	*23-112*	0			
Surr: Nitrobenzene-d5	*579.6*	0	*1000*	0	*58*	*31-93*	0			
Surr: Phenol-d6	*255.4*	0	*1000*	0	*25.5*	*13-36*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101205** Instrument ID **SVMS5** Method: **SW8270D**

MSD Sample ID: **17041383-02B MSD** Units: **µg/L** Analysis Date: **4/28/2017 06:38 PM**

Client ID: **Soil Cuttings** Run ID: **SVMS5_170428A** SeqNo: **4402594** Prep Date: **4/28/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	246.2	100	400	0	61.6	30-110	230.6	6.54	30	
2,4,5-Trichlorophenol	250.8	100	400	0	62.7	50-110	236.4	5.91	30	
2,4,6-Trichlorophenol	264.4	100	400	0	66.1	50-115	242.4	8.68	30	
2,4-Dinitrotoluene	265.6	100	400	0	66.4	50-120	253.2	4.78	30	
Hexachloro-1,3-butadiene	230.2	100	400	0	57.6	25-105	212	8.23	30	
Hexachlorobenzene	271.2	100	400	0	67.8	50-110	263	3.07	30	
Hexachloroethane	273.8	100	400	0	68.4	30-95	235.6	15	30	
m-Cresol	221	100	400	0	55.2	30-110	212	4.16	30	
Nitrobenzene	248.4	100	400	0	62.1	45-110	227.2	8.92	30	
o-Cresol	237.8	100	400	0	59.4	40-110	228	4.21	30	
p-Cresol	221	100	400	0	55.2	30-110	212	4.16	30	
Pentachlorophenol	288.6	100	400	0	72.2	40-115	262	9.66	30	
Pyridine	159	200	400	0	39.8	10-80	157.4	0	30	J
Surr: 2,4,6-Tribromophenol	*598.6*	0	*1000*	0	*59.9*	*38-115*	576.2	*3.81*	*0*	
Surr: 2-Fluorobiphenyl	*632.8*	0	*1000*	0	*63.3*	*32-100*	599.6	*5.39*	*0*	
Surr: 2-Fluorophenol	*380.2*	0	*1000*	0	*38*	*22-59*	395.2	*3.87*	*0*	
Surr: 4-Terphenyl-d14	*667.4*	0	*1000*	0	*66.7*	*23-112*	657.8	*1.45*	*0*	
Surr: Nitrobenzene-d5	*586*	0	*1000*	0	*58.6*	*31-93*	579.6	*1.1*	*0*	
Surr: Phenol-d6	*240.4*	0	*1000*	0	*24*	*13-36*	255.4	*6.05*	*0*	

The following samples were analyzed in this batch: 17041383-02B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210640a** Instrument ID **VMS6** Method: **SW8260B**

MBLK Sample ID: **VBLKW1-170427-R210640a** Units: **µg/L** Analysis Date: **4/27/2017 11:13 AM**

Client ID: Run ID: **VMS6_170427A** SeqNo: **4399876** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	U	1.0								
1,2-Dichloroethane	U	1.0								
2-Butanone	U	5.0								
Benzene	U	1.0								
Carbon tetrachloride	U	1.0								
Chlorobenzene	U	1.0								
Chloroform	U	1.0								
Tetrachloroethene	U	1.0								
Trichloroethene	U	1.0								
Vinyl chloride	U	1.0								
Surr: 1,2-Dichloroethane-d4	*20.96*	0	*20*	0	*105*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.56*	0	*20*	0	*97.8*	*80-110*	0			
Surr: Dibromofluoromethane	*19.75*	0	*20*	0	*98.8*	*85-115*	0			
Surr: Toluene-d8	*19.65*	0	*20*	0	*98.2*	*85-110*	0			

LCS Sample ID: **VLCSW1-170427-R210640a** Units: **µg/L** Analysis Date: **4/27/2017 09:55 AM**

Client ID: Run ID: **VMS6_170427A** SeqNo: **4399875** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	21.04	1.0	20	0	105	70-145	0			
1,2-Dichloroethane	19.7	1.0	20	0	98.5	78-125	0			
2-Butanone	16.43	5.0	20	0	82.2	55-150	0			
Benzene	20.33	1.0	20	0	102	85-125	0			
Carbon tetrachloride	20.81	1.0	20	0	104	65-140	0			
Chlorobenzene	19.42	1.0	20	0	97.1	80-120	0			
Chloroform	19.59	1.0	20	0	98	80-130	0			
Tetrachloroethene	20.06	1.0	20	0	100	68-166	0			
Trichloroethene	19.73	1.0	20	0	98.6	84-130	0			
Vinyl chloride	21.45	1.0	20	0	107	50-136	0			
Surr: 1,2-Dichloroethane-d4	*20.08*	0	*20*	0	*100*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.24*	0	*20*	0	*101*	*80-110*	0			
Surr: Dibromofluoromethane	*20.14*	0	*20*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*19.85*	0	*20*	0	*99.2*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210640a** Instrument ID **VMS6** Method: **SW8260B**

MS Sample ID: **17041365-05A MS** Units: **µg/L** Analysis Date: **4/27/2017 07:55 PM**

Client ID: Run ID: **VMS6_170427A** SeqNo: **4401323** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	427.2	20	400	0	107	70-145	0			
1,2-Dichloroethane	394	20	400	0	98.5	78-125	0			
2-Butanone	366	100	400	0	91.5	55-150	0			
Benzene	416.4	20	400	0	104	85-125	0			
Carbon tetrachloride	428.6	20	400	0	107	65-140	0			
Chlorobenzene	397	20	400	0	99.2	80-120	0			
Chloroform	395.6	20	400	0	98.9	80-130	0			
Tetrachloroethene	424.4	20	400	0	106	68-166	0			
Trichloroethene	409.4	20	400	0	102	84-130	0			
Vinyl chloride	396	20	400	0	99	50-136	0			
Surr: 1,2-Dichloroethane-d4	*402.2*	0	*400*	0	*101*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*405.2*	0	*400*	0	*101*	*80-110*	0			
Surr: Dibromofluoromethane	*409*	0	*400*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*393.4*	0	*400*	0	*98.4*	*85-110*	0			

MSD Sample ID: **17041365-05A MSD** Units: **µg/L** Analysis Date: **4/27/2017 08:21 PM**

Client ID: Run ID: **VMS6_170427A** SeqNo: **4401324** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	414.6	20	400	0	104	70-145	427.2	2.99	30	
1,2-Dichloroethane	377.4	20	400	0	94.4	78-125	394	4.3	30	
2-Butanone	344.6	100	400	0	86.2	55-150	366	6.02	30	
Benzene	394.4	20	400	0	98.6	85-125	416.4	5.43	30	
Carbon tetrachloride	405.6	20	400	0	101	65-140	428.6	5.51	30	
Chlorobenzene	380.4	20	400	0	95.1	80-120	397	4.27	30	
Chloroform	377.8	20	400	0	94.4	80-130	395.6	4.6	30	
Tetrachloroethene	408.6	20	400	0	102	68-166	424.4	3.79	30	
Trichloroethene	385.4	20	400	0	96.4	84-130	409.4	6.04	30	
Vinyl chloride	382.8	20	400	0	95.7	50-136	396	3.39	30	
Surr: 1,2-Dichloroethane-d4	*403.2*	0	*400*	0	*101*	*75-120*	402.2	*0.248*	*30*	
Surr: 4-Bromofluorobenzene	*410*	0	*400*	0	*102*	*80-110*	405.2	*1.18*	*30*	
Surr: Dibromofluoromethane	*402.6*	0	*400*	0	*101*	*85-115*	409	*1.58*	*30*	
Surr: Toluene-d8	*394.6*	0	*400*	0	*98.6*	*85-110*	393.4	*0.305*	*30*	

The following samples were analyzed in this batch: 17041383-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101201** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-101201-101201** Units: **s.u.** Analysis Date: **5/1/2017 09:35 AM**

Client ID: Run ID: **WETCHEM_170501B** SeqNo: **4403311** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.92	0.10	4	0	98	90-110	0			

DUP Sample ID: **17041444-01A DUP** Units: **s.u.** Analysis Date: **5/1/2017 09:35 AM**

Client ID: Run ID: **WETCHEM_170501B** SeqNo: **4403320** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.33	0.10	0	0	0	0-0	7.21	1.65	20	

DUP Sample ID: **17041458-04A DUP** Units: **s.u.** Analysis Date: **5/1/2017 09:35 AM**

Client ID: Run ID: **WETCHEM_170501B** SeqNo: **4403325** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.58	0.10	0	0	0	0-0	7.54	0.529	20	

The following samples were analyzed in this batch: 17041383-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210678** Instrument ID **WETCHEM** Method: **SW7.3.4.2**

MBLK Sample ID: **MB-R210678-R210678** Units: **mg/Kg** Analysis Date: **4/27/2017 02:00 PM**

Client ID: Run ID: **WETCHEM_170427I** SeqNo: **4400030** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	U	100								

LCS Sample ID: **LCS-R210678-R210678** Units: **mg/Kg** Analysis Date: **4/27/2017 02:00 PM**

Client ID: Run ID: **WETCHEM_170427I** SeqNo: **4400031** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	1608	100	2149	0	74.8	60-120	0			

The following samples were analyzed in this batch: 17041383-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210681** Instrument ID **WETCHEM** Method: **SW7.3.3.2**

MBLK Sample ID: **MB-R210681-R210681** Units: **mg/Kg** Analysis Date: **4/27/2017 02:15 PM**

Client ID: Run ID: **WETCHEM_170427K** SeqNo: **4400068** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	U	100								

LCS Sample ID: **LCS-R210681-R210681** Units: **mg/Kg** Analysis Date: **4/27/2017 02:15 PM**

Client ID: Run ID: **WETCHEM_170427K** SeqNo: **4400069** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	117.4	100	125	0	94	84-112	0			

MS Sample ID: **17041118-04B MS** Units: **mg/Kg** Analysis Date: **4/27/2017 02:15 PM**

Client ID: Run ID: **WETCHEM_170427K** SeqNo: **4400071** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	100	250	0	94	84-112	0			

MSD Sample ID: **17041118-04B MSD** Units: **mg/Kg** Analysis Date: **4/27/2017 02:15 PM**

Client ID: Run ID: **WETCHEM_170427K** SeqNo: **4400072** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	100	250	0	94	84-112	234.9	0	8	

The following samples were analyzed in this batch: 17041383-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041383
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210747** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R210747** Units: **% of sample** Analysis Date: **4/27/2017 12:43 PM**

Client ID: Run ID: **MOIST_170427B** SeqNo: **4401253** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.04	0.050								J

LCS Sample ID: **LCS-R210747** Units: **% of sample** Analysis Date: **4/27/2017 12:43 PM**

Client ID: Run ID: **MOIST_170427B** SeqNo: **4401252** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **17041383-01A DUP** Units: **% of sample** Analysis Date: **4/27/2017 12:43 PM**

Client ID: **Soil Cuttings** Run ID: **MOIST_170427B** SeqNo: **4401235** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.14	0.050	0	0	0		19.52	1.97	5	

DUP Sample ID: **17041476-01B DUP** Units: **% of sample** Analysis Date: **4/27/2017 12:43 PM**

Client ID: Run ID: **MOIST_170427B** SeqNo: **4401251** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.57	0.050	0	0	0		11.7	1.12	5	

The following samples were analyzed in this batch: 17041383-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511 | Houston, TX +1 281 530 5656 | Spring City, PA +1 610 948 4903 | South Charleston, WV +1 304 356 3168

Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070 | Middletown, PA +1 717 944 5541 | Salt Lake City, UT +1 801 266 7700 | York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 43159

ALS Project Manager: | ALS Work Order #: 17041383

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Former Teledyne Site	A	TCLP Metals/VOCs/SVOCs
Work Order		Project Number		B	PCBs
Company Name	Tetra Tech EM Inc.	Bill To Company	Tetra Tech EM Inc.	C	Reactive Cyanide/Sulfide
Send Report To	Dave Franc	Invoice Attn		D	pH/Corrisivity
Address	1 South Wacker Dr Suite 3700	Address	1 South Wacker Dr Suite 3700	E	Free Waste - Paint Filter
				F	Moisture
City/State/Zip	Chicago, IL 60606	City/State/Zip	Chicago, IL 60606	G	
Phone	(312) 201-7411	Phone	(312) 201-7411	H	
Fax	(312) 938-0118	Fax	(312) 938-0118	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Soil cuttings	4/24/17	16:20	Soil	8	4	✓	✓	✓	✓	✓						
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Ashley Weimer Ashley Weimer

Shipment Method: FedEx

Turnaround Time in Business Days (BD): ☐ Other ____ ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD

Results Due Date:

Relinquished by: Ashley Weimer | Date: 4/24/17 | Time: 1700 | Received by: FED EX

Relinquished by: FED EX | Date: 4/25/17 | Time: 1000 | Received by (Laboratory): [signature]

Logged by (Laboratory): DES | Date: 4/25/17 | Time: 1515 | Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp
SR2	2.8°C

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other ____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Group, USA

Sample Receipt Checklist

Client Name: **TETRATECH-EM-CHI** Date/Time Received: **25-Apr-17 10:00**

Work Order: **17041383** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 25-Apr-17 (Date) Reviewed by: Joseph Ribar (eSignature) 25-Apr-17 (Date)

Matrices: Soil
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.8/2.8 c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	4/25/2017 4:14:41 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

04-May-2017

Dave Franc
Tetra Tech EM Inc.
1 South Wacker Dr
Suite 3700
Chicago, IL 60606

Re: **Former Teledyne Site** Work Order: **17041370**

Dear Dave,

ALS Environmental received 9 samples on 25-Apr-2017 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 54.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Joseph Ribar

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager

Certificate No: IL: 200076

ADDRESS 3352 128th Ave Holland, Michigan 49424 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental www.alsglobal.com
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ALS Group, USA

Date: 04-May-17

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Work Order: **17041370**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
17041370-01	TDSB32 (2-4)-042417	Soil		4/24/2017 09:45	4/25/2017 10:00	☐
17041370-02	TDS32 (12-14)-042417	Soil		4/24/2017 10:15	4/25/2017 10:00	☐
17041370-03	TDSB05 (8-10)-042417	Soil		4/24/2017 12:50	4/25/2017 10:00	☐
17041370-04	TDSB05 (8-10)Dup-042417	Soil		4/24/2017 12:55	4/25/2017 10:00	☐
17041370-05	TDSB19 (2-4)-042417	Soil		4/24/2017 13:00	4/25/2017 10:00	☐
17041370-06	TDSB18 (4-5)-042417	Soil		4/24/2017 13:20	4/25/2017 10:00	☐
17041370-07	TDSB17 (2-4)-042417	Soil		4/24/2017 13:40	4/25/2017 10:00	☐
17041370-08	TDSB20 (2-4)-042417	Soil		4/24/2017 14:05	4/25/2017 10:00	☐
17041370-09	Trip Blank	Soil		4/24/2017	4/25/2017 10:00	☐

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Work Order: 17041370

Case Narrative

Samples for the above noted Work Order were received on 04/25/2017. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
No other deviations or anomalies were noted.

Extractable Organics:
Batch 101169, Method 8081, Sample 17041370-01B, -03B, -04B, -05B, -06B, -07B, and -08B: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.

Batch 101169, Method 8081, Sample 17041370-05B MS: Calculated value was below the MDL. No spike recovery reported for the MS/MSD.

Batch 101213, Method 8270, Sample 17041370-07B MS: The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Multiple (See QC Report)

Batch 101213, Method 8270, Sample 17041370-07B MSD: The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: Multiple (See QC Report)

No other deviations or anomalies were noted.

Metals:
Batch 101184, Method 6020, Sample 17041370-08B: The reporting limits are elevated due to internal standard failure in the undiluted run for these analytes: Pb

No other deviations or anomalies were noted.

Wet Chemistry:
No other deviations or anomalies were noted.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB32 (2-4)-042417
Collection Date: 4/24/2017 09:45 AM

Work Order: 17041370
Lab ID: 17041370-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/27/17		Analyst: **EB**
Aroclor 1016	U		9.7	74	µg/Kg-dry	1	4/29/2017 04:55
Aroclor 1221	U		9.7	74	µg/Kg-dry	1	4/29/2017 04:55
Aroclor 1232	U		9.7	74	µg/Kg-dry	1	4/29/2017 04:55
Aroclor 1242	U		9.7	74	µg/Kg-dry	1	4/29/2017 04:55
Aroclor 1248	U		9.7	74	µg/Kg-dry	1	4/29/2017 04:55
Aroclor 1254	U		6.8	74	µg/Kg-dry	1	4/29/2017 04:55
Aroclor 1260	**20**	J	**6.8**	**74**	**µg/Kg-dry**	1	4/29/2017 04:55
Aroclor 1262	U		6.8	74	µg/Kg-dry	1	4/29/2017 04:55
Aroclor 1268	U		6.8	74	µg/Kg-dry	1	4/29/2017 04:55
Surr: Decachlorobiphenyl	*55.3*			*40-140*	*%REC*	1	4/29/2017 04:55
Surr: Tetrachloro-m-xylene	*64.7*			*45-124*	*%REC*	1	4/29/2017 04:55
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/27/17		Analyst: **JF**
4,4´-DDD	U		24	110	µg/Kg-dry	10	5/1/2017 18:24
4,4´-DDE	U		22	110	µg/Kg-dry	10	5/1/2017 18:24
4,4´-DDT	U		18	110	µg/Kg-dry	10	5/1/2017 18:24
Aldrin	U		22	110	µg/Kg-dry	10	5/1/2017 18:24
alpha-BHC	U		22	110	µg/Kg-dry	10	5/1/2017 18:24
alpha-Chlordane	U		21	110	µg/Kg-dry	10	5/1/2017 18:24
beta-BHC	U		21	110	µg/Kg-dry	10	5/1/2017 18:24
Chlordane, Technical	U		110	280	µg/Kg-dry	10	5/1/2017 18:24
delta-BHC	U		58	110	µg/Kg-dry	10	5/1/2017 18:24
Dieldrin	U		21	110	µg/Kg-dry	10	5/1/2017 18:24
Endosulfan I	U		18	110	µg/Kg-dry	10	5/1/2017 18:24
Endosulfan II	U		21	110	µg/Kg-dry	10	5/1/2017 18:24
Endosulfan sulfate	U		23	110	µg/Kg-dry	10	5/1/2017 18:24
Endrin	U		23	110	µg/Kg-dry	10	5/1/2017 18:24
Endrin aldehyde	U		19	110	µg/Kg-dry	10	5/1/2017 18:24
Endrin ketone	U		21	110	µg/Kg-dry	10	5/1/2017 18:24
gamma-BHC (Lindane)	U		27	110	µg/Kg-dry	10	5/1/2017 18:24
gamma-Chlordane	U		25	110	µg/Kg-dry	10	5/1/2017 18:24
Heptachlor	U		31	110	µg/Kg-dry	10	5/1/2017 18:24
Heptachlor epoxide	U		20	110	µg/Kg-dry	10	5/1/2017 18:24
Methoxychlor	U		19	110	µg/Kg-dry	10	5/1/2017 18:24
Toxaphene	U		120	670	µg/Kg-dry	10	5/1/2017 18:24
Surr: Decachlorobiphenyl	*61.8*			*50-150*	*%REC*	10	5/1/2017 18:24
Surr: Tetrachloro-m-xylene	*67.2*			*50-150*	*%REC*	10	5/1/2017 18:24
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/27/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB32 (2-4)-042417
Collection Date: 4/24/2017 09:45 AM

Work Order: 17041370
Lab ID: 17041370-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.085**		**0.0029**	**0.017**	**mg/Kg-dry**	1	4/27/2017 12:57
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/27/17		Analyst: **JF**
Arsenic	**3.6**		**0.27**	**1.8**	**mg/Kg-dry**	4	4/28/2017 17:45
Barium	**61**		**0.25**	**1.8**	**mg/Kg-dry**	4	4/28/2017 17:45
Cadmium	**0.24**	J	**0.014**	**0.72**	**mg/Kg-dry**	4	4/28/2017 17:45
Chromium	**19**		**0.086**	**1.8**	**mg/Kg-dry**	4	4/28/2017 17:45
Lead	**77**		**0.029**	**1.8**	**mg/Kg-dry**	4	5/1/2017 18:44
Selenium	**0.87**	J	**0.54**	**1.8**	**mg/Kg-dry**	4	4/28/2017 17:45
Silver	**0.077**	J	**0.014**	**1.8**	**mg/Kg-dry**	4	4/28/2017 17:45
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/28/17		Analyst: **RS**
2-Chloronaphthalene	U		4.6	46	µg/Kg-dry	1	4/28/2017 23:55
2-Methylnaphthalene	**77**		**7.6**	**46**	**µg/Kg-dry**	1	4/28/2017 23:55
Acenaphthene	U		3.3	46	µg/Kg-dry	1	4/28/2017 23:55
Acenaphthylene	U		4.1	46	µg/Kg-dry	1	4/28/2017 23:55
Anthracene	U		1.7	46	µg/Kg-dry	1	4/28/2017 23:55
Benzo(a)anthracene	U		2.8	46	µg/Kg-dry	1	4/28/2017 23:55
Benzo(a)pyrene	U		1.2	46	µg/Kg-dry	1	4/28/2017 23:55
Benzo(b)fluoranthene	U		1.8	46	µg/Kg-dry	1	4/28/2017 23:55
Benzo(g,h,i)perylene	U		3.1	46	µg/Kg-dry	1	4/28/2017 23:55
Benzo(k)fluoranthene	U		2.4	46	µg/Kg-dry	1	4/28/2017 23:55
Chrysene	U		1.8	46	µg/Kg-dry	1	4/28/2017 23:55
Dibenzo(a,h)anthracene	U		1.5	46	µg/Kg-dry	1	4/28/2017 23:55
Fluoranthene	**440**		**1.3**	**46**	**µg/Kg-dry**	1	4/28/2017 23:55
Fluorene	U		1.5	46	µg/Kg-dry	1	4/28/2017 23:55
Indeno(1,2,3-cd)pyrene	U		1.4	46	µg/Kg-dry	1	4/28/2017 23:55
Naphthalene	**46**		**8.7**	**46**	**µg/Kg-dry**	1	4/28/2017 23:55
Phenanthrene	U		1.6	46	µg/Kg-dry	1	4/28/2017 23:55
Pyrene	**270**		**1.7**	**46**	**µg/Kg-dry**	1	4/28/2017 23:55
Surr: 2-Fluorobiphenyl	*80.3*			*20-140*	*%REC*	1	4/28/2017 23:55
Surr: 4-Terphenyl-d14	*60.2*			*22-172*	*%REC*	1	4/28/2017 23:55
Surr: Nitrobenzene-d5	*79.0*			*8-140*	*%REC*	1	4/28/2017 23:55
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/27/17		Analyst: **BG**
1,1,1-Trichloroethane	U		11	37	µg/Kg-dry	1	4/28/2017 21:23
1,1,2,2-Tetrachloroethane	U		9.0	37	µg/Kg-dry	1	4/28/2017 21:23
1,1,2-Trichloroethane	U		11	37	µg/Kg-dry	1	4/28/2017 21:23
1,1-Dichloroethane	U		9.5	37	µg/Kg-dry	1	4/28/2017 21:23
1,1-Dichloroethene	U		10	37	µg/Kg-dry	1	4/28/2017 21:23
1,2-Dichloroethane	U		10	37	µg/Kg-dry	1	4/28/2017 21:23

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB32 (2-4)-042417
Collection Date: 4/24/2017 09:45 AM

Work Order: 17041370
Lab ID: 17041370-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		10	37	µg/Kg-dry	1	4/28/2017 21:23
2-Butanone	U		50	250	µg/Kg-dry	1	4/28/2017 21:23
2-Hexanone	U		25	37	µg/Kg-dry	1	4/28/2017 21:23
4-Methyl-2-pentanone	U		27	37	µg/Kg-dry	1	4/28/2017 21:23
Acetone	U		68	120	µg/Kg-dry	1	4/28/2017 21:23
Benzene	U		8.5	37	µg/Kg-dry	1	4/28/2017 21:23
Bromodichloromethane	U		10	37	µg/Kg-dry	1	4/28/2017 21:23
Bromoform	U		13	37	µg/Kg-dry	1	4/28/2017 21:23
Bromomethane	U		16	94	µg/Kg-dry	1	4/28/2017 21:23
Carbon disulfide	U		13	37	µg/Kg-dry	1	4/28/2017 21:23
Carbon tetrachloride	U		6.6	37	µg/Kg-dry	1	4/28/2017 21:23
Chlorobenzene	U		11	37	µg/Kg-dry	1	4/28/2017 21:23
Chloroethane	U		24	120	µg/Kg-dry	1	4/28/2017 21:23
Chloroform	U		13	37	µg/Kg-dry	1	4/28/2017 21:23
cis-1,2-Dichloroethene	U		11	37	µg/Kg-dry	1	4/28/2017 21:23
cis-1,3-Dichloropropene	U		14	37	µg/Kg-dry	1	4/28/2017 21:23
Dibromochloromethane	U		8.5	37	µg/Kg-dry	1	4/28/2017 21:23
Ethylbenzene	**15**	J	**8.7**	**37**	**µg/Kg-dry**	1	4/28/2017 21:23
Methyl tert-butyl ether	U		12	37	µg/Kg-dry	1	4/28/2017 21:23
Methylene chloride	U		17	37	µg/Kg-dry	1	4/28/2017 21:23
Styrene	U		26	37	µg/Kg-dry	1	4/28/2017 21:23
Tetrachloroethene	U		18	37	µg/Kg-dry	1	4/28/2017 21:23
Toluene	**21**	J	**12**	**37**	**µg/Kg-dry**	1	4/28/2017 21:23
trans-1,2-Dichloroethene	U		11	37	µg/Kg-dry	1	4/28/2017 21:23
trans-1,3-Dichloropropene	U		6.7	37	µg/Kg-dry	1	4/28/2017 21:23
Trichloroethene	U		10	37	µg/Kg-dry	1	4/28/2017 21:23
Vinyl chloride	U		12	37	µg/Kg-dry	1	4/28/2017 21:23
Xylenes, Total	**75**	J	**29**	**110**	**µg/Kg-dry**	1	4/28/2017 21:23
Surr: 1,2-Dichloroethane-d4	*103*			*70-130*	*%REC*	1	4/28/2017 21:23
Surr: 4-Bromofluorobenzene	*101*			*70-130*	*%REC*	1	4/28/2017 21:23
Surr: Dibromofluoromethane	*91.5*			*70-130*	*%REC*	1	4/28/2017 21:23
Surr: Toluene-d8	*97.5*			*70-130*	*%REC*	1	4/28/2017 21:23

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**11**		**0.025**	**0.050**	**% of sample**	1	4/26/2017 18:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDS32 (12-14)-042417
Collection Date: 4/24/2017 10:15 AM

Work Order: 17041370
Lab ID: 17041370-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PARTICLE-SIZE ANALYSIS OF SOILS		Method: **D422**					Analyst: **LR**
3 Inch Sieve	**100**		**0**		**% Passing**	1	5/2/2017
1.5 Inch Sieve	**100**		**0**		**% Passing**	1	5/2/2017
0.75 Inch Sieve	**100**		**0**		**% Passing**	1	5/2/2017
0.375 Inch Sieve	**100**		**0**		**% Passing**	1	5/2/2017
No. 4 Sieve (4.75 mm)	**100**		**0**		**% Passing**	1	5/2/2017
No. 10 Sieve (2.00 mm)	**100**		**0**		**% Passing**	1	5/2/2017
No. 16 Sieve (1.18 mm)	**100**		**0**		**% Passing**	1	5/2/2017
No. 30 Sieve (0.60 mm)	**100**		**0**		**% Passing**	1	5/2/2017
No. 50 Sieve (0.30 mm)	**99.8**		**0**		**% Passing**	1	5/2/2017
No. 60 Sieve (0.25 mm)	**99.6**		**0**		**% Passing**	1	5/2/2017
No. 100 Sieve (0.15 mm)	**93.2**		**0**		**% Passing**	1	5/2/2017
No. 200 Sieve (0.075 mm)	**74.9**		**0**		**% Passing**	1	5/2/2017
0.030 mm (Hydrometer)	**49.0**		**0**		**% Passing**	1	5/2/2017
0.005 mm (Hydrometer)	**23.0**		**0**		**% Passing**	1	5/2/2017
0.0015 mm (Hydrometer)	**18.0**		**0**		**% Passing**	1	5/2/2017
% Gravel	U		**0**		**% Passing**	1	5/2/2017
% Sand	**25.1**		**0**		**% Passing**	1	5/2/2017
% Silt, Clay, Colloids	**74.9**		**0**		**% Passing**	1	5/2/2017

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB05 (8-10)-042417
Collection Date: 4/24/2017 12:50 PM

Work Order: 17041370
Lab ID: 17041370-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/27/17		Analyst: **EB**
Aroclor 1016	U		10	78	µg/Kg-dry	1	4/29/2017 05:09
Aroclor 1221	U		10	78	µg/Kg-dry	1	4/29/2017 05:09
Aroclor 1232	U		10	78	µg/Kg-dry	1	4/29/2017 05:09
Aroclor 1242	U		10	78	µg/Kg-dry	1	4/29/2017 05:09
Aroclor 1248	U		10	78	µg/Kg-dry	1	4/29/2017 05:09
Aroclor 1254	U		7.0	78	µg/Kg-dry	1	4/29/2017 05:09
Aroclor 1260	U		7.0	78	µg/Kg-dry	1	4/29/2017 05:09
Aroclor 1262	U		7.0	78	µg/Kg-dry	1	4/29/2017 05:09
Aroclor 1268	U		7.0	78	µg/Kg-dry	1	4/29/2017 05:09
Surr: Decachlorobiphenyl	*52.1*			*40-140*	*%REC*	1	4/29/2017 05:09
Surr: Tetrachloro-m-xylene	*61.9*			*45-124*	*%REC*	1	4/29/2017 05:09
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/27/17		Analyst: **JF**
4,4´-DDD	U		130	580	µg/Kg-dry	50	5/1/2017 18:37
4,4´-DDE	U		110	580	µg/Kg-dry	50	5/1/2017 18:37
4,4´-DDT	U		93	580	µg/Kg-dry	50	5/1/2017 18:37
Aldrin	U		120	580	µg/Kg-dry	50	5/1/2017 18:37
alpha-BHC	U		110	580	µg/Kg-dry	50	5/1/2017 18:37
alpha-Chlordane	U		110	580	µg/Kg-dry	50	5/1/2017 18:37
beta-BHC	U		110	580	µg/Kg-dry	50	5/1/2017 18:37
Chlordane, Technical	U		580	1,500	µg/Kg-dry	50	5/1/2017 18:37
delta-BHC	U		300	580	µg/Kg-dry	50	5/1/2017 18:37
Dieldrin	U		110	580	µg/Kg-dry	50	5/1/2017 18:37
Endosulfan I	U		94	580	µg/Kg-dry	50	5/1/2017 18:37
Endosulfan II	U		110	580	µg/Kg-dry	50	5/1/2017 18:37
Endosulfan sulfate	U		120	580	µg/Kg-dry	50	5/1/2017 18:37
Endrin	U		120	580	µg/Kg-dry	50	5/1/2017 18:37
Endrin aldehyde	U		100	580	µg/Kg-dry	50	5/1/2017 18:37
Endrin ketone	U		110	580	µg/Kg-dry	50	5/1/2017 18:37
gamma-BHC (Lindane)	U		140	580	µg/Kg-dry	50	5/1/2017 18:37
gamma-Chlordane	U		130	580	µg/Kg-dry	50	5/1/2017 18:37
Heptachlor	U		160	580	µg/Kg-dry	50	5/1/2017 18:37
Heptachlor epoxide	U		110	580	µg/Kg-dry	50	5/1/2017 18:37
Methoxychlor	U		100	580	µg/Kg-dry	50	5/1/2017 18:37
Toxaphene	U		630	3,500	µg/Kg-dry	50	5/1/2017 18:37
Surr: Decachlorobiphenyl	*75.8*			*50-150*	*%REC*	50	5/1/2017 18:37
Surr: Tetrachloro-m-xylene	*76.8*			*50-150*	*%REC*	50	5/1/2017 18:37
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/27/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB05 (8-10)-042417
Collection Date: 4/24/2017 12:50 PM

Work Order: 17041370
Lab ID: 17041370-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.038**		**0.0027**	**0.016**	**mg/Kg-dry**	1	4/27/2017 13:00
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/27/17		Analyst: **JF**
Arsenic	**6.4**		**0.24**	**1.6**	**mg/Kg-dry**	4	4/28/2017 17:51
Barium	**97**		**0.22**	**1.6**	**mg/Kg-dry**	4	4/28/2017 17:51
Cadmium	**0.31**	J	**0.013**	**0.64**	**mg/Kg-dry**	4	4/28/2017 17:51
Chromium	**23**		**0.077**	**1.6**	**mg/Kg-dry**	4	4/28/2017 17:51
Lead	**120**		**0.026**	**1.6**	**mg/Kg-dry**	4	5/1/2017 18:50
Selenium	**1.1**	J	**0.48**	**1.6**	**mg/Kg-dry**	4	4/28/2017 17:51
Silver	**0.18**	J	**0.013**	**1.6**	**mg/Kg-dry**	4	4/28/2017 17:51
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/28/17		Analyst: **RS**
2-Chloronaphthalene	U		4.7	48	µg/Kg-dry	1	4/29/2017 12:19
2-Methylnaphthalene	U		7.7	48	µg/Kg-dry	1	4/29/2017 12:19
Acenaphthene	U		3.4	48	µg/Kg-dry	1	4/29/2017 12:19
Acenaphthylene	U		4.2	48	µg/Kg-dry	1	4/29/2017 12:19
Anthracene	U		1.7	48	µg/Kg-dry	1	4/29/2017 12:19
Benzo(a)anthracene	**210**		**2.9**	**48**	**µg/Kg-dry**	1	4/29/2017 12:19
Benzo(a)pyrene	**160**		**1.2**	**48**	**µg/Kg-dry**	1	4/29/2017 12:19
Benzo(b)fluoranthene	**330**		**1.8**	**48**	**µg/Kg-dry**	1	4/29/2017 12:19
Benzo(g,h,i)perylene	**64**		**3.2**	**48**	**µg/Kg-dry**	1	4/29/2017 12:19
Benzo(k)fluoranthene	**140**		**2.5**	**48**	**µg/Kg-dry**	1	4/29/2017 12:19
Chrysene	**230**		**1.8**	**48**	**µg/Kg-dry**	1	4/29/2017 12:19
Dibenzo(a,h)anthracene	U		1.5	48	µg/Kg-dry	1	4/29/2017 12:19
Fluoranthene	**360**		**1.4**	**48**	**µg/Kg-dry**	1	4/29/2017 12:19
Fluorene	U		1.5	48	µg/Kg-dry	1	4/29/2017 12:19
Indeno(1,2,3-cd)pyrene	U		1.5	48	µg/Kg-dry	1	4/29/2017 12:19
Naphthalene	U		8.9	48	µg/Kg-dry	1	4/29/2017 12:19
Phenanthrene	**140**		**1.6**	**48**	**µg/Kg-dry**	1	4/29/2017 12:19
Pyrene	**160**		**1.7**	**48**	**µg/Kg-dry**	1	4/29/2017 12:19
Surr: 2-Fluorobiphenyl	*59.9*			*20-140*	*%REC*	1	4/29/2017 12:19
Surr: 4-Terphenyl-d14	*44.5*			*22-172*	*%REC*	1	4/29/2017 12:19
Surr: Nitrobenzene-d5	*64.3*			*8-140*	*%REC*	1	4/29/2017 12:19
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **EMR**
1,1,1-Trichloroethane	U		0.15	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
1,1,2,2-Tetrachloroethane	U		0.11	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
1,1,2-Trichloroethane	U		0.59	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
1,1-Dichloroethane	U		0.13	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
1,1-Dichloroethene	U		0.16	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
1,2-Dichloroethane	U		0.15	4.8	µg/Kg-dry	0.803	4/27/2017 16:21

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB05 (8-10)-042417
Collection Date: 4/24/2017 12:50 PM

Work Order: 17041370
Lab ID: 17041370-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		0.34	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
2-Butanone	U		0.81	9.6	µg/Kg-dry	0.803	4/27/2017 16:21
2-Hexanone	U		0.64	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
4-Methyl-2-pentanone	U		0.18	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Acetone	**27**		**1.5**	**9.6**	**µg/Kg-dry**	0.803	4/27/2017 16:21
Benzene	**4.2**	J	**0.093**	**4.8**	**µg/Kg-dry**	0.803	4/27/2017 16:21
Bromodichloromethane	U		0.10	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Bromoform	U		0.14	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Bromomethane	U		0.29	9.6	µg/Kg-dry	0.803	4/27/2017 16:21
Carbon disulfide	**1.3**	J	**0.18**	**4.8**	**µg/Kg-dry**	0.803	4/27/2017 16:21
Carbon tetrachloride	U		0.23	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Chlorobenzene	U		0.15	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Chloroethane	U		0.50	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Chloroform	U		0.19	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Chloromethane	U		0.25	9.6	µg/Kg-dry	0.803	4/27/2017 16:21
cis-1,2-Dichloroethene	U		0.11	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
cis-1,3-Dichloropropene	U		0.11	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Dibromochloromethane	U		0.14	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Ethylbenzene	**1.3**	J	**0.11**	**4.8**	**µg/Kg-dry**	0.803	4/27/2017 16:21
Methyl tert-butyl ether	U		0.18	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Methylene chloride	U		0.13	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Styrene	U		0.28	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Tetrachloroethene	U		0.21	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Toluene	**4.7**	J	**0.12**	**4.8**	**µg/Kg-dry**	0.803	4/27/2017 16:21
trans-1,2-Dichloroethene	U		0.22	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
trans-1,3-Dichloropropene	U		0.16	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Trichloroethene	U		0.18	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Vinyl chloride	U		0.16	4.8	µg/Kg-dry	0.803	4/27/2017 16:21
Xylenes, Total	**3.4**	J	**0.52**	**4.8**	**µg/Kg-dry**	0.803	4/27/2017 16:21
Surr: 1,2-Dichloroethane-d4	*123*	S		*70-120*	*%REC*	0.803	4/27/2017 16:21
Surr: 4-Bromofluorobenzene	*100*			*75-120*	*%REC*	0.803	4/27/2017 16:21
Surr: Dibromofluoromethane	*107*			*85-115*	*%REC*	0.803	4/27/2017 16:21
Surr: Toluene-d8	*99.6*			*85-120*	*%REC*	0.803	4/27/2017 16:21

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**16**	**0.025**	**0.050**	**% of sample**	1	4/26/2017 18:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB05 (8-10)Dup-042417
Collection Date: 4/24/2017 12:55 PM

Work Order: 17041370
Lab ID: 17041370-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/27/17		Analyst: **EB**
Aroclor 1016	U		10	80	µg/Kg-dry	1	4/29/2017 06:06
Aroclor 1221	U		10	80	µg/Kg-dry	1	4/29/2017 06:06
Aroclor 1232	U		10	80	µg/Kg-dry	1	4/29/2017 06:06
Aroclor 1242	U		10	80	µg/Kg-dry	1	4/29/2017 06:06
Aroclor 1248	U		10	80	µg/Kg-dry	1	4/29/2017 06:06
Aroclor 1254	U		7.3	80	µg/Kg-dry	1	4/29/2017 06:06
Aroclor 1260	U		7.3	80	µg/Kg-dry	1	4/29/2017 06:06
Aroclor 1262	U		7.3	80	µg/Kg-dry	1	4/29/2017 06:06
Aroclor 1268	U		7.3	80	µg/Kg-dry	1	4/29/2017 06:06
Surr: Decachlorobiphenyl	*47.9*			*40-140*	*%REC*	1	4/29/2017 06:06
Surr: Tetrachloro-m-xylene	*60.0*			*45-124*	*%REC*	1	4/29/2017 06:06
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/27/17		Analyst: **JF**
4,4´-DDD	U		130	600	µg/Kg-dry	50	5/1/2017 18:50
4,4´-DDE	U		120	600	µg/Kg-dry	50	5/1/2017 18:50
4,4´-DDT	U		95	600	µg/Kg-dry	50	5/1/2017 18:50
Aldrin	U		120	600	µg/Kg-dry	50	5/1/2017 18:50
alpha-BHC	U		120	600	µg/Kg-dry	50	5/1/2017 18:50
alpha-Chlordane	U		110	600	µg/Kg-dry	50	5/1/2017 18:50
beta-BHC	U		110	600	µg/Kg-dry	50	5/1/2017 18:50
Chlordane, Technical	U		600	1,500	µg/Kg-dry	50	5/1/2017 18:50
delta-BHC	U		310	600	µg/Kg-dry	50	5/1/2017 18:50
Dieldrin	U		110	600	µg/Kg-dry	50	5/1/2017 18:50
Endosulfan I	U		97	600	µg/Kg-dry	50	5/1/2017 18:50
Endosulfan II	U		110	600	µg/Kg-dry	50	5/1/2017 18:50
Endosulfan sulfate	U		120	600	µg/Kg-dry	50	5/1/2017 18:50
Endrin	U		120	600	µg/Kg-dry	50	5/1/2017 18:50
Endrin aldehyde	U		100	600	µg/Kg-dry	50	5/1/2017 18:50
Endrin ketone	U		110	600	µg/Kg-dry	50	5/1/2017 18:50
gamma-BHC (Lindane)	U		140	600	µg/Kg-dry	50	5/1/2017 18:50
gamma-Chlordane	U		140	600	µg/Kg-dry	50	5/1/2017 18:50
Heptachlor	U		170	600	µg/Kg-dry	50	5/1/2017 18:50
Heptachlor epoxide	U		110	600	µg/Kg-dry	50	5/1/2017 18:50
Methoxychlor	U		100	600	µg/Kg-dry	50	5/1/2017 18:50
Toxaphene	U		650	3,600	µg/Kg-dry	50	5/1/2017 18:50
Surr: Decachlorobiphenyl	*64.6*			*50-150*	*%REC*	50	5/1/2017 18:50
Surr: Tetrachloro-m-xylene	*74.3*			*50-150*	*%REC*	50	5/1/2017 18:50
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/27/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB05 (8-10)Dup-042417
Collection Date: 4/24/2017 12:55 PM

Work Order: 17041370
Lab ID: 17041370-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.034**		**0.0031**	**0.019**	**mg/Kg-dry**	1	4/27/2017 13:02
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/27/17		Analyst: **JF**
Arsenic	**6.1**		**0.28**	**1.9**	**mg/Kg-dry**	4	4/28/2017 17:57
Barium	**84**		**0.27**	**1.9**	**mg/Kg-dry**	4	4/28/2017 17:57
Cadmium	**0.25**	J	**0.015**	**0.76**	**mg/Kg-dry**	4	4/28/2017 17:57
Chromium	**22**		**0.091**	**1.9**	**mg/Kg-dry**	4	4/28/2017 17:57
Lead	**53**		**0.030**	**1.9**	**mg/Kg-dry**	4	5/1/2017 18:56
Selenium	**1.1**	J	**0.57**	**1.9**	**mg/Kg-dry**	4	4/28/2017 17:57
Silver	**0.13**	J	**0.015**	**1.9**	**mg/Kg-dry**	4	4/28/2017 17:57
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/28/17		Analyst: **RS**
2-Chloronaphthalene	U		4.9	49	µg/Kg-dry	1	4/29/2017 12:44
2-Methylnaphthalene	**71**		**8.0**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Acenaphthene	U		3.5	49	µg/Kg-dry	1	4/29/2017 12:44
Acenaphthylene	**57**		**4.3**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Anthracene	**280**		**1.8**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Benzo(a)anthracene	**480**		**3.0**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Benzo(a)pyrene	**400**		**1.2**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Benzo(b)fluoranthene	**680**		**1.9**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Benzo(g,h,i)perylene	**120**		**3.3**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Benzo(k)fluoranthene	**310**		**2.5**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Chrysene	**480**		**1.9**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Dibenzo(a,h)anthracene	U		1.6	49	µg/Kg-dry	1	4/29/2017 12:44
Fluoranthene	**1,000**		**1.4**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Fluorene	U		1.6	49	µg/Kg-dry	1	4/29/2017 12:44
Indeno(1,2,3-cd)pyrene	**270**		**1.5**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Naphthalene	**85**		**9.2**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Phenanthrene	**370**		**1.7**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Pyrene	**480**		**1.8**	**49**	**µg/Kg-dry**	1	4/29/2017 12:44
Surr: 2-Fluorobiphenyl	*84.6*			*20-140*	*%REC*	1	4/29/2017 12:44
Surr: 4-Terphenyl-d14	*61.4*			*22-172*	*%REC*	1	4/29/2017 12:44
Surr: Nitrobenzene-d5	*83.9*			*8-140*	*%REC*	1	4/29/2017 12:44
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/27/17		Analyst: **BG**
1,1,1-Trichloroethane	U		12	43	µg/Kg-dry	1	4/28/2017 21:49
1,1,2,2-Tetrachloroethane	U		10	43	µg/Kg-dry	1	4/28/2017 21:49
1,1,2-Trichloroethane	U		13	43	µg/Kg-dry	1	4/28/2017 21:49
1,1-Dichloroethane	U		11	43	µg/Kg-dry	1	4/28/2017 21:49
1,1-Dichloroethene	U		12	43	µg/Kg-dry	1	4/28/2017 21:49
1,2-Dichloroethane	U		12	43	µg/Kg-dry	1	4/28/2017 21:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB05 (8-10)Dup-042417
Collection Date: 4/24/2017 12:55 PM

Work Order: 17041370
Lab ID: 17041370-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	43	µg/Kg-dry	1	4/28/2017 21:49
2-Butanone	**94**	J	**58**	**290**	**µg/Kg-dry**	1	4/28/2017 21:49
2-Hexanone	U		29	43	µg/Kg-dry	1	4/28/2017 21:49
4-Methyl-2-pentanone	U		32	43	µg/Kg-dry	1	4/28/2017 21:49
Acetone	U		78	140	µg/Kg-dry	1	4/28/2017 21:49
Benzene	**27**	J	**9.8**	**43**	**µg/Kg-dry**	1	4/28/2017 21:49
Bromodichloromethane	U		12	43	µg/Kg-dry	1	4/28/2017 21:49
Bromoform	U		15	43	µg/Kg-dry	1	4/28/2017 21:49
Bromomethane	U		19	110	µg/Kg-dry	1	4/28/2017 21:49
Carbon disulfide	U		15	43	µg/Kg-dry	1	4/28/2017 21:49
Carbon tetrachloride	U		7.7	43	µg/Kg-dry	1	4/28/2017 21:49
Chlorobenzene	U		13	43	µg/Kg-dry	1	4/28/2017 21:49
Chloroethane	U		27	140	µg/Kg-dry	1	4/28/2017 21:49
Chloroform	U		15	43	µg/Kg-dry	1	4/28/2017 21:49
cis-1,2-Dichloroethene	U		12	43	µg/Kg-dry	1	4/28/2017 21:49
cis-1,3-Dichloropropene	U		17	43	µg/Kg-dry	1	4/28/2017 21:49
Dibromochloromethane	U		9.8	43	µg/Kg-dry	1	4/28/2017 21:49
Ethylbenzene	**22**	J	**10**	**43**	**µg/Kg-dry**	1	4/28/2017 21:49
Methyl tert-butyl ether	U		14	43	µg/Kg-dry	1	4/28/2017 21:49
Methylene chloride	U		20	43	µg/Kg-dry	1	4/28/2017 21:49
Styrene	U		30	43	µg/Kg-dry	1	4/28/2017 21:49
Tetrachloroethene	U		21	43	µg/Kg-dry	1	4/28/2017 21:49
Toluene	**79**		**14**	**43**	**µg/Kg-dry**	1	4/28/2017 21:49
trans-1,2-Dichloroethene	U		12	43	µg/Kg-dry	1	4/28/2017 21:49
trans-1,3-Dichloropropene	U		7.7	43	µg/Kg-dry	1	4/28/2017 21:49
Trichloroethene	U		12	43	µg/Kg-dry	1	4/28/2017 21:49
Vinyl chloride	U		14	43	µg/Kg-dry	1	4/28/2017 21:49
Xylenes, Total	**150**		**33**	**130**	**µg/Kg-dry**	1	4/28/2017 21:49
Surr: 1,2-Dichloroethane-d4	*105*			*70-130*	*%REC*	1	4/28/2017 21:49
Surr: 4-Bromofluorobenzene	*102*			*70-130*	*%REC*	1	4/28/2017 21:49
Surr: Dibromofluoromethane	*92.9*			*70-130*	*%REC*	1	4/28/2017 21:49
Surr: Toluene-d8	*101*			*70-130*	*%REC*	1	4/28/2017 21:49

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**18**	**0.025**	**0.050**	**% of sample**	1	4/26/2017 18:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB19 (2-4)-042417
Collection Date: 4/24/2017 01:00 PM

Work Order: 17041370
Lab ID: 17041370-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/27/17		Analyst: **EB**
Aroclor 1016	U		9.8	76	µg/Kg-dry	1	4/29/2017 06:21
Aroclor 1221	U		9.8	76	µg/Kg-dry	1	4/29/2017 06:21
Aroclor 1232	U		9.8	76	µg/Kg-dry	1	4/29/2017 06:21
Aroclor 1242	U		9.8	76	µg/Kg-dry	1	4/29/2017 06:21
Aroclor 1248	U		9.8	76	µg/Kg-dry	1	4/29/2017 06:21
Aroclor 1254	U		6.9	76	µg/Kg-dry	1	4/29/2017 06:21
Aroclor 1260	**29**	J	**6.9**	**76**	**µg/Kg-dry**	1	4/29/2017 06:21
Aroclor 1262	U		6.9	76	µg/Kg-dry	1	4/29/2017 06:21
Aroclor 1268	U		6.9	76	µg/Kg-dry	1	4/29/2017 06:21
Surr: Decachlorobiphenyl	*58.6*			*40-140*	*%REC*	1	4/29/2017 06:21
Surr: Tetrachloro-m-xylene	*63.9*			*45-124*	*%REC*	1	4/29/2017 06:21
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/27/17		Analyst: **JF**
4,4´-DDD	U		120	570	µg/Kg-dry	50	5/1/2017 19:04
4,4´-DDE	U		110	570	µg/Kg-dry	50	5/1/2017 19:04
4,4´-DDT	U		90	570	µg/Kg-dry	50	5/1/2017 19:04
Aldrin	U		110	570	µg/Kg-dry	50	5/1/2017 19:04
alpha-BHC	U		110	570	µg/Kg-dry	50	5/1/2017 19:04
alpha-Chlordane	U		110	570	µg/Kg-dry	50	5/1/2017 19:04
beta-BHC	U		100	570	µg/Kg-dry	50	5/1/2017 19:04
Chlordane, Technical	U		560	1,400	µg/Kg-dry	50	5/1/2017 19:04
delta-BHC	U		290	570	µg/Kg-dry	50	5/1/2017 19:04
Dieldrin	U		110	570	µg/Kg-dry	50	5/1/2017 19:04
Endosulfan I	U		91	570	µg/Kg-dry	50	5/1/2017 19:04
Endosulfan II	U		110	570	µg/Kg-dry	50	5/1/2017 19:04
Endosulfan sulfate	U		120	570	µg/Kg-dry	50	5/1/2017 19:04
Endrin	U		120	570	µg/Kg-dry	50	5/1/2017 19:04
Endrin aldehyde	U		98	570	µg/Kg-dry	50	5/1/2017 19:04
Endrin ketone	U		110	570	µg/Kg-dry	50	5/1/2017 19:04
gamma-BHC (Lindane)	U		140	570	µg/Kg-dry	50	5/1/2017 19:04
gamma-Chlordane	U		130	570	µg/Kg-dry	50	5/1/2017 19:04
Heptachlor	U		160	570	µg/Kg-dry	50	5/1/2017 19:04
Heptachlor epoxide	U		100	570	µg/Kg-dry	50	5/1/2017 19:04
Methoxychlor	U		97	570	µg/Kg-dry	50	5/1/2017 19:04
Toxaphene	U		610	3,400	µg/Kg-dry	50	5/1/2017 19:04
Surr: Decachlorobiphenyl	*83.6*			*50-150*	*%REC*	50	5/1/2017 19:04
Surr: Tetrachloro-m-xylene	*73.1*			*50-150*	*%REC*	50	5/1/2017 19:04
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/27/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB19 (2-4)-042417
Collection Date: 4/24/2017 01:00 PM

Work Order: 17041370
Lab ID: 17041370-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.12**		**0.0030**	**0.018**	**mg/Kg-dry**	1	4/27/2017 13:05
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/27/17		Analyst: **JF**
Arsenic	**7.6**		**0.23**	**1.5**	**mg/Kg-dry**	4	4/28/2017 18:03
Barium	**280**		**0.22**	**1.5**	**mg/Kg-dry**	4	4/28/2017 18:03
Cadmium	**0.80**		**0.012**	**0.62**	**mg/Kg-dry**	4	4/28/2017 18:03
Chromium	**19**		**0.074**	**1.5**	**mg/Kg-dry**	4	4/28/2017 18:03
Lead	**440**		**0.025**	**1.5**	**mg/Kg-dry**	4	5/1/2017 19:02
Selenium	**1.3**	J	**0.46**	**1.5**	**mg/Kg-dry**	4	4/28/2017 18:03
Silver	**0.35**	J	**0.012**	**1.5**	**mg/Kg-dry**	4	4/28/2017 18:03
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/28/17		Analyst: **RS**
2-Chloronaphthalene	U		4.6	46	µg/Kg-dry	1	4/29/2017 01:09
2-Methylnaphthalene	**95**		**7.5**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Acenaphthene	**57**		**3.3**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Acenaphthylene	**260**		**4.1**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Anthracene	**750**		**1.7**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Benzo(a)anthracene	**1,500**		**2.8**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Benzo(a)pyrene	**1,500**		**1.1**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Benzo(b)fluoranthene	**2,200**		**1.8**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Benzo(g,h,i)perylene	**390**		**3.1**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Benzo(k)fluoranthene	**1,000**		**2.4**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Chrysene	**1,000**		**1.8**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Dibenzo(a,h)anthracene	U		1.5	46	µg/Kg-dry	1	4/29/2017 01:09
Fluoranthene	**3,100**		**1.3**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Fluorene	**59**		**1.5**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Indeno(1,2,3-cd)pyrene	**970**		**1.4**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Naphthalene	**99**		**8.6**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Phenanthrene	**930**		**1.6**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Pyrene	**1,400**		**1.7**	**46**	**µg/Kg-dry**	1	4/29/2017 01:09
Surr: 2-Fluorobiphenyl	*89.9*			*20-140*	*%REC*	1	4/29/2017 01:09
Surr: 4-Terphenyl-d14	*54.8*			*22-172*	*%REC*	1	4/29/2017 01:09
Surr: Nitrobenzene-d5	*83.6*			*8-140*	*%REC*	1	4/29/2017 01:09
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/27/17		Analyst: **BG**
1,1,1-Trichloroethane	U		11	38	µg/Kg-dry	1	4/28/2017 22:14
1,1,2,2-Tetrachloroethane	U		9.2	38	µg/Kg-dry	1	4/28/2017 22:14
1,1,2-Trichloroethane	U		11	38	µg/Kg-dry	1	4/28/2017 22:14
1,1-Dichloroethane	U		9.7	38	µg/Kg-dry	1	4/28/2017 22:14
1,1-Dichloroethene	U		10	38	µg/Kg-dry	1	4/28/2017 22:14
1,2-Dichloroethane	U		10	38	µg/Kg-dry	1	4/28/2017 22:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB19 (2-4)-042417
Collection Date: 4/24/2017 01:00 PM

Work Order: 17041370
Lab ID: 17041370-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		11	38	µg/Kg-dry	1	4/28/2017 22:14
2-Butanone	**100**	J	**51**	**250**	**µg/Kg-dry**	1	4/28/2017 22:14
2-Hexanone	U		25	38	µg/Kg-dry	1	4/28/2017 22:14
4-Methyl-2-pentanone	U		28	38	µg/Kg-dry	1	4/28/2017 22:14
Acetone	U		69	130	µg/Kg-dry	1	4/28/2017 22:14
Benzene	U		8.6	38	µg/Kg-dry	1	4/28/2017 22:14
Bromodichloromethane	U		10	38	µg/Kg-dry	1	4/28/2017 22:14
Bromoform	U		14	38	µg/Kg-dry	1	4/28/2017 22:14
Bromomethane	U		17	95	µg/Kg-dry	1	4/28/2017 22:14
Carbon disulfide	U		13	38	µg/Kg-dry	1	4/28/2017 22:14
Carbon tetrachloride	U		6.8	38	µg/Kg-dry	1	4/28/2017 22:14
Chlorobenzene	U		11	38	µg/Kg-dry	1	4/28/2017 22:14
Chloroethane	U		24	130	µg/Kg-dry	1	4/28/2017 22:14
Chloroform	U		13	38	µg/Kg-dry	1	4/28/2017 22:14
cis-1,2-Dichloroethene	U		11	38	µg/Kg-dry	1	4/28/2017 22:14
cis-1,3-Dichloropropene	U		15	38	µg/Kg-dry	1	4/28/2017 22:14
Dibromochloromethane	U		8.7	38	µg/Kg-dry	1	4/28/2017 22:14
Ethylbenzene	**13**	J	**8.9**	**38**	**µg/Kg-dry**	1	4/28/2017 22:14
Methyl tert-butyl ether	U		12	38	µg/Kg-dry	1	4/28/2017 22:14
Methylene chloride	U		17	38	µg/Kg-dry	1	4/28/2017 22:14
Styrene	U		27	38	µg/Kg-dry	1	4/28/2017 22:14
Tetrachloroethene	**39**		**19**	**38**	**µg/Kg-dry**	1	4/28/2017 22:14
Toluene	**45**		**13**	**38**	**µg/Kg-dry**	1	4/28/2017 22:14
trans-1,2-Dichloroethene	U		11	38	µg/Kg-dry	1	4/28/2017 22:14
trans-1,3-Dichloropropene	U		6.8	38	µg/Kg-dry	1	4/28/2017 22:14
Trichloroethene	U		10	38	µg/Kg-dry	1	4/28/2017 22:14
Vinyl chloride	U		12	38	µg/Kg-dry	1	4/28/2017 22:14
Xylenes, Total	**86**	J	**30**	**110**	**µg/Kg-dry**	1	4/28/2017 22:14
Surr: 1,2-Dichloroethane-d4	*102*			*70-130*	*%REC*	1	4/28/2017 22:14
Surr: 4-Bromofluorobenzene	*98.2*			*70-130*	*%REC*	1	4/28/2017 22:14
Surr: Dibromofluoromethane	*91.2*			*70-130*	*%REC*	1	4/28/2017 22:14
Surr: Toluene-d8	*99.5*			*70-130*	*%REC*	1	4/28/2017 22:14

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**12**	**0.025**	**0.050**	**% of sample**	1	4/27/2017 12:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB18 (4-5)-042417
Collection Date: 4/24/2017 01:20 PM

Work Order: 17041370
Lab ID: 17041370-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/27/17		Analyst: **EB**
Aroclor 1016	U		10	80	µg/Kg-dry	1	4/29/2017 06:35
Aroclor 1221	U		10	80	µg/Kg-dry	1	4/29/2017 06:35
Aroclor 1232	U		10	80	µg/Kg-dry	1	4/29/2017 06:35
Aroclor 1242	U		10	80	µg/Kg-dry	1	4/29/2017 06:35
Aroclor 1248	U		10	80	µg/Kg-dry	1	4/29/2017 06:35
Aroclor 1254	U		7.2	80	µg/Kg-dry	1	4/29/2017 06:35
Aroclor 1260	U		7.2	80	µg/Kg-dry	1	4/29/2017 06:35
Aroclor 1262	U		7.2	80	µg/Kg-dry	1	4/29/2017 06:35
Aroclor 1268	U		7.2	80	µg/Kg-dry	1	4/29/2017 06:35
Surr: Decachlorobiphenyl	*50.1*			*40-140*	*%REC*	1	4/29/2017 06:35
Surr: Tetrachloro-m-xylene	*51.9*			*45-124*	*%REC*	1	4/29/2017 06:35
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/27/17		Analyst: **JF**
4,4´-DDD	U		130	600	µg/Kg-dry	50	5/1/2017 19:43
4,4´-DDE	U		120	600	µg/Kg-dry	50	5/1/2017 19:43
4,4´-DDT	U		95	600	µg/Kg-dry	50	5/1/2017 19:43
Aldrin	U		120	600	µg/Kg-dry	50	5/1/2017 19:43
alpha-BHC	U		120	600	µg/Kg-dry	50	5/1/2017 19:43
alpha-Chlordane	U		110	600	µg/Kg-dry	50	5/1/2017 19:43
beta-BHC	U		110	600	µg/Kg-dry	50	5/1/2017 19:43
Chlordane, Technical	U		590	1,500	µg/Kg-dry	50	5/1/2017 19:43
delta-BHC	U		310	600	µg/Kg-dry	50	5/1/2017 19:43
Dieldrin	U		110	600	µg/Kg-dry	50	5/1/2017 19:43
Endosulfan I	U		96	600	µg/Kg-dry	50	5/1/2017 19:43
Endosulfan II	U		110	600	µg/Kg-dry	50	5/1/2017 19:43
Endosulfan sulfate	U		120	600	µg/Kg-dry	50	5/1/2017 19:43
Endrin	U		120	600	µg/Kg-dry	50	5/1/2017 19:43
Endrin aldehyde	U		100	600	µg/Kg-dry	50	5/1/2017 19:43
Endrin ketone	U		110	600	µg/Kg-dry	50	5/1/2017 19:43
gamma-BHC (Lindane)	U		140	600	µg/Kg-dry	50	5/1/2017 19:43
gamma-Chlordane	U		130	600	µg/Kg-dry	50	5/1/2017 19:43
Heptachlor	U		170	600	µg/Kg-dry	50	5/1/2017 19:43
Heptachlor epoxide	U		110	600	µg/Kg-dry	50	5/1/2017 19:43
Methoxychlor	U		100	600	µg/Kg-dry	50	5/1/2017 19:43
Toxaphene	U		640	3,600	µg/Kg-dry	50	5/1/2017 19:43
Surr: Decachlorobiphenyl	*100*			*50-150*	*%REC*	50	5/1/2017 19:43
Surr: Tetrachloro-m-xylene	*64.6*			*50-150*	*%REC*	50	5/1/2017 19:43
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/27/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB18 (4-5)-042417
Collection Date: 4/24/2017 01:20 PM

Work Order: 17041370
Lab ID: 17041370-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.34**		**0.0064**	**0.039**	**mg/L-dry**	2	5/1/2017 13:03
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/27/17		Analyst: **JF**
Arsenic	**13**		**0.30**	**2.0**	**mg/Kg-dry**	4	4/28/2017 18:09
Barium	**420**		**0.28**	**2.0**	**mg/Kg-dry**	4	4/28/2017 18:09
Cadmium	**0.92**		**0.016**	**0.80**	**mg/Kg-dry**	4	4/28/2017 18:09
Chromium	**28**		**0.097**	**2.0**	**mg/Kg-dry**	4	4/28/2017 18:09
Lead	**490**		**0.032**	**2.0**	**mg/Kg-dry**	4	5/1/2017 19:08
Selenium	**1.7**	J	**0.60**	**2.0**	**mg/Kg-dry**	4	4/28/2017 18:09
Silver	**0.88**	J	**0.016**	**2.0**	**mg/Kg-dry**	4	4/28/2017 18:09
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/28/17		Analyst: **RS**
2-Chloronaphthalene	U		25	250	µg/Kg-dry	5	5/3/2017 04:22
2-Methylnaphthalene	**680**		**40**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Acenaphthene	**1,200**		**17**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Acenaphthylene	**9,500**		**22**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Anthracene	**15,000**		**9.0**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Benzo(a)anthracene	**52,000**		**150**	**2,500**	**µg/Kg-dry**	50	5/3/2017 03:57
Benzo(a)pyrene	**36,000**		**6.1**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Benzo(b)fluoranthene	**44,000**		**94**	**2,500**	**µg/Kg-dry**	50	5/3/2017 03:57
Benzo(g,h,i)perylene	**9,500**		**17**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Benzo(k)fluoranthene	**17,000**		**13**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Chrysene	**28,000**		**94**	**2,500**	**µg/Kg-dry**	50	5/3/2017 03:57
Dibenzo(a,h)anthracene	**3,900**		**8.0**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Fluoranthene	**93,000**		**71**	**2,500**	**µg/Kg-dry**	50	5/3/2017 03:57
Fluorene	**1,900**		**8.0**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Indeno(1,2,3-cd)pyrene	**11,000**		**7.6**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Naphthalene	**1,500**		**46**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Phenanthrene	**36,000**		**8.5**	**250**	**µg/Kg-dry**	5	5/3/2017 04:22
Pyrene	**71,000**		**90**	**2,500**	**µg/Kg-dry**	50	5/3/2017 03:57
Surr: 2-Fluorobiphenyl	*58.5*			*20-140*	*%REC*	5	5/3/2017 04:22
Surr: 4-Terphenyl-d14	*34.0*			*22-172*	*%REC*	5	5/3/2017 04:22
Surr: Nitrobenzene-d5	*80.9*			*8-140*	*%REC*	5	5/3/2017 04:22
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/27/17		Analyst: **BG**
1,1,1-Trichloroethane	U		13	47	µg/Kg-dry	1	4/28/2017 22:40
1,1,2,2-Tetrachloroethane	U		11	47	µg/Kg-dry	1	4/28/2017 22:40
1,1,2-Trichloroethane	U		14	47	µg/Kg-dry	1	4/28/2017 22:40
1,1-Dichloroethane	U		12	47	µg/Kg-dry	1	4/28/2017 22:40
1,1-Dichloroethene	U		13	47	µg/Kg-dry	1	4/28/2017 22:40
1,2-Dichloroethane	U		13	47	µg/Kg-dry	1	4/28/2017 22:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB18 (4-5)-042417
Collection Date: 4/24/2017 01:20 PM

Work Order: 17041370
Lab ID: 17041370-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		13	47	µg/Kg-dry	1	4/28/2017 22:40
2-Butanone	**110**	J	**63**	**310**	**µg/Kg-dry**	1	4/28/2017 22:40
2-Hexanone	U		31	47	µg/Kg-dry	1	4/28/2017 22:40
4-Methyl-2-pentanone	U		34	47	µg/Kg-dry	1	4/28/2017 22:40
Acetone	U		85	160	µg/Kg-dry	1	4/28/2017 22:40
Benzene	U		11	47	µg/Kg-dry	1	4/28/2017 22:40
Bromodichloromethane	U		13	47	µg/Kg-dry	1	4/28/2017 22:40
Bromoform	U		17	47	µg/Kg-dry	1	4/28/2017 22:40
Bromomethane	U		20	120	µg/Kg-dry	1	4/28/2017 22:40
Carbon disulfide	U		16	47	µg/Kg-dry	1	4/28/2017 22:40
Carbon tetrachloride	U		8.3	47	µg/Kg-dry	1	4/28/2017 22:40
Chlorobenzene	U		14	47	µg/Kg-dry	1	4/28/2017 22:40
Chloroethane	U		30	160	µg/Kg-dry	1	4/28/2017 22:40
Chloroform	U		16	47	µg/Kg-dry	1	4/28/2017 22:40
cis-1,2-Dichloroethene	U		13	47	µg/Kg-dry	1	4/28/2017 22:40
cis-1,3-Dichloropropene	U		18	47	µg/Kg-dry	1	4/28/2017 22:40
Dibromochloromethane	U		11	47	µg/Kg-dry	1	4/28/2017 22:40
Ethylbenzene	**16**	J	**11**	**47**	**µg/Kg-dry**	1	4/28/2017 22:40
Methyl tert-butyl ether	U		15	47	µg/Kg-dry	1	4/28/2017 22:40
Methylene chloride	U		21	47	µg/Kg-dry	1	4/28/2017 22:40
Styrene	U		33	47	µg/Kg-dry	1	4/28/2017 22:40
Tetrachloroethene	U		23	47	µg/Kg-dry	1	4/28/2017 22:40
Toluene	**150**		**16**	**47**	**µg/Kg-dry**	1	4/28/2017 22:40
trans-1,2-Dichloroethene	U		13	47	µg/Kg-dry	1	4/28/2017 22:40
trans-1,3-Dichloropropene	U		8.4	47	µg/Kg-dry	1	4/28/2017 22:40
Trichloroethene	U		13	47	µg/Kg-dry	1	4/28/2017 22:40
Vinyl chloride	U		15	47	µg/Kg-dry	1	4/28/2017 22:40
Xylenes, Total	**150**		**36**	**140**	**µg/Kg-dry**	1	4/28/2017 22:40
Surr: 1,2-Dichloroethane-d4	*103*			*70-130*	*%REC*	1	4/28/2017 22:40
Surr: 4-Bromofluorobenzene	*101*			*70-130*	*%REC*	1	4/28/2017 22:40
Surr: Dibromofluoromethane	*86.6*			*70-130*	*%REC*	1	4/28/2017 22:40
Surr: Toluene-d8	*104*			*70-130*	*%REC*	1	4/28/2017 22:40

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**18**	**0.025**	**0.050**	**% of sample**	1	4/27/2017 12:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB17 (2-4)-042417
Collection Date: 4/24/2017 01:40 PM

Work Order: 17041370
Lab ID: 17041370-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3546 / 4/27/17		Analyst: **EB**
Aroclor 1016	U		9.3	71	µg/Kg-dry	1	4/29/2017 06:49
Aroclor 1221	U		9.3	71	µg/Kg-dry	1	4/29/2017 06:49
Aroclor 1232	U		9.3	71	µg/Kg-dry	1	4/29/2017 06:49
Aroclor 1242	U		9.3	71	µg/Kg-dry	1	4/29/2017 06:49
Aroclor 1248	U		9.3	71	µg/Kg-dry	1	4/29/2017 06:49
Aroclor 1254	**98**		**6.5**	**71**	**µg/Kg-dry**	1	4/29/2017 06:49
Aroclor 1260	**52**	J	**6.5**	**71**	**µg/Kg-dry**	1	4/29/2017 06:49
Aroclor 1262	U		6.5	71	µg/Kg-dry	1	4/29/2017 06:49
Aroclor 1268	U		6.5	71	µg/Kg-dry	1	4/29/2017 06:49
Surr: Decachlorobiphenyl	*59.1*			*40-140*	*%REC*	1	4/29/2017 06:49
Surr: Tetrachloro-m-xylene	*63.5*			*45-124*	*%REC*	1	4/29/2017 06:49
PESTICIDES		Method:	**SW8081A**		Prep: SW3546 / 4/27/17		Analyst: **JF**
4,4´-DDD	U		120	540	µg/Kg-dry	50	5/1/2017 19:57
4,4´-DDE	U		100	540	µg/Kg-dry	50	5/1/2017 19:57
4,4´-DDT	U		85	540	µg/Kg-dry	50	5/1/2017 19:57
Aldrin	U		110	540	µg/Kg-dry	50	5/1/2017 19:57
alpha-BHC	U		100	540	µg/Kg-dry	50	5/1/2017 19:57
alpha-Chlordane	U		100	540	µg/Kg-dry	50	5/1/2017 19:57
beta-BHC	U		98	540	µg/Kg-dry	50	5/1/2017 19:57
Chlordane, Technical	U		530	1,300	µg/Kg-dry	50	5/1/2017 19:57
delta-BHC	U		280	540	µg/Kg-dry	50	5/1/2017 19:57
Dieldrin	U		100	540	µg/Kg-dry	50	5/1/2017 19:57
Endosulfan I	U		86	540	µg/Kg-dry	50	5/1/2017 19:57
Endosulfan II	U		100	540	µg/Kg-dry	50	5/1/2017 19:57
Endosulfan sulfate	U		110	540	µg/Kg-dry	50	5/1/2017 19:57
Endrin	U		110	540	µg/Kg-dry	50	5/1/2017 19:57
Endrin aldehyde	U		93	540	µg/Kg-dry	50	5/1/2017 19:57
Endrin ketone	U		100	540	µg/Kg-dry	50	5/1/2017 19:57
gamma-BHC (Lindane)	U		130	540	µg/Kg-dry	50	5/1/2017 19:57
gamma-Chlordane	U		120	540	µg/Kg-dry	50	5/1/2017 19:57
Heptachlor	U		150	540	µg/Kg-dry	50	5/1/2017 19:57
Heptachlor epoxide	U		98	540	µg/Kg-dry	50	5/1/2017 19:57
Methoxychlor	U		92	540	µg/Kg-dry	50	5/1/2017 19:57
Toxaphene	U		580	3,200	µg/Kg-dry	50	5/1/2017 19:57
Surr: Decachlorobiphenyl	*105*			*50-150*	*%REC*	50	5/1/2017 19:57
Surr: Tetrachloro-m-xylene	*77.6*			*50-150*	*%REC*	50	5/1/2017 19:57
MERCURY BY CVAA		Method:	**SW7471B**		Prep: SW7471 / 4/27/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB17 (2-4)-042417
Collection Date: 4/24/2017 01:40 PM

Work Order: 17041370
Lab ID: 17041370-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.098**		**0.0025**	**0.015**	**mg/Kg-dry**	1	4/27/2017 13:10
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/27/17		Analyst: **JF**
Arsenic	**7.9**		**0.27**	**1.8**	**mg/Kg-dry**	4	4/28/2017 18:15
Barium	**220**		**0.25**	**1.8**	**mg/Kg-dry**	4	4/28/2017 18:15
Cadmium	**0.83**		**0.014**	**0.72**	**mg/Kg-dry**	4	4/28/2017 18:15
Chromium	**21**		**0.086**	**1.8**	**mg/Kg-dry**	4	4/28/2017 18:15
Lead	**470**		**0.029**	**1.8**	**mg/Kg-dry**	4	5/1/2017 19:14
Selenium	**1.3**	J	**0.54**	**1.8**	**mg/Kg-dry**	4	4/28/2017 18:15
Silver	**0.15**	J	**0.014**	**1.8**	**mg/Kg-dry**	4	4/28/2017 18:15
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/28/17		Analyst: **RS**
2-Chloronaphthalene	U		4.5	45	µg/Kg-dry	1	4/28/2017 20:12
2-Methylnaphthalene	**110**		**7.3**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Acenaphthene	**140**		**3.2**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Acenaphthylene	**480**		**3.9**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Anthracene	**2,300**		**1.6**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Benzo(a)anthracene	**3,400**		**2.7**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Benzo(a)pyrene	**2,700**		**1.1**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Benzo(b)fluoranthene	**3,500**		**1.7**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Benzo(g,h,i)perylene	**790**		**3.0**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Benzo(k)fluoranthene	**1,400**		**2.3**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Chrysene	**2,400**		**1.7**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Dibenzo(a,h)anthracene	U		1.5	45	µg/Kg-dry	1	4/28/2017 20:12
Fluoranthene	**6,700**		**6.4**	**220**	**µg/Kg-dry**	5	5/3/2017 03:08
Fluorene	**230**		**1.5**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Indeno(1,2,3-cd)pyrene	**1,400**		**1.4**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Naphthalene	**150**		**8.4**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Phenanthrene	**3,300**		**1.5**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Pyrene	**5,100**		**1.6**	**45**	**µg/Kg-dry**	1	4/28/2017 20:12
Surr: 2-Fluorobiphenyl	*71.7*			*20-140*	*%REC*	1	4/28/2017 20:12
Surr: 4-Terphenyl-d14	*43.0*			*22-172*	*%REC*	1	4/28/2017 20:12
Surr: Nitrobenzene-d5	*75.6*			*8-140*	*%REC*	1	4/28/2017 20:12
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/27/17		Analyst: **BG**
1,1,1-Trichloroethane	U		13	44	µg/Kg-dry	1	4/28/2017 23:06
1,1,2,2-Tetrachloroethane	U		11	44	µg/Kg-dry	1	4/28/2017 23:06
1,1,2-Trichloroethane	U		13	44	µg/Kg-dry	1	4/28/2017 23:06
1,1-Dichloroethane	U		11	44	µg/Kg-dry	1	4/28/2017 23:06
1,1-Dichloroethene	U		12	44	µg/Kg-dry	1	4/28/2017 23:06
1,2-Dichloroethane	U		12	44	µg/Kg-dry	1	4/28/2017 23:06

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB17 (2-4)-042417
Collection Date: 4/24/2017 01:40 PM

Work Order: 17041370
Lab ID: 17041370-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		12	44	µg/Kg-dry	1	4/28/2017 23:06
2-Butanone	**120**	J	**59**	**290**	**µg/Kg-dry**	1	4/28/2017 23:06
2-Hexanone	U		29	44	µg/Kg-dry	1	4/28/2017 23:06
4-Methyl-2-pentanone	U		32	44	µg/Kg-dry	1	4/28/2017 23:06
Acetone	U		80	150	µg/Kg-dry	1	4/28/2017 23:06
Benzene	U		9.9	44	µg/Kg-dry	1	4/28/2017 23:06
Bromodichloromethane	U		12	44	µg/Kg-dry	1	4/28/2017 23:06
Bromoform	U		16	44	µg/Kg-dry	1	4/28/2017 23:06
Bromomethane	U		19	110	µg/Kg-dry	1	4/28/2017 23:06
Carbon disulfide	U		15	44	µg/Kg-dry	1	4/28/2017 23:06
Carbon tetrachloride	U		7.8	44	µg/Kg-dry	1	4/28/2017 23:06
Chlorobenzene	U		13	44	µg/Kg-dry	1	4/28/2017 23:06
Chloroethane	U		28	150	µg/Kg-dry	1	4/28/2017 23:06
Chloroform	U		15	44	µg/Kg-dry	1	4/28/2017 23:06
cis-1,2-Dichloroethene	U		12	44	µg/Kg-dry	1	4/28/2017 23:06
cis-1,3-Dichloropropene	U		17	44	µg/Kg-dry	1	4/28/2017 23:06
Dibromochloromethane	U		10	44	µg/Kg-dry	1	4/28/2017 23:06
Ethylbenzene	U		10	44	µg/Kg-dry	1	4/28/2017 23:06
Methyl tert-butyl ether	U		14	44	µg/Kg-dry	1	4/28/2017 23:06
Methylene chloride	U		20	44	µg/Kg-dry	1	4/28/2017 23:06
Styrene	U		31	44	µg/Kg-dry	1	4/28/2017 23:06
Tetrachloroethene	U		22	44	µg/Kg-dry	1	4/28/2017 23:06
Toluene	**28**	J	**15**	**44**	**µg/Kg-dry**	1	4/28/2017 23:06
trans-1,2-Dichloroethene	U		12	44	µg/Kg-dry	1	4/28/2017 23:06
trans-1,3-Dichloropropene	U		7.9	44	µg/Kg-dry	1	4/28/2017 23:06
Trichloroethene	U		12	44	µg/Kg-dry	1	4/28/2017 23:06
Vinyl chloride	U		14	44	µg/Kg-dry	1	4/28/2017 23:06
Xylenes, Total	**63**	J	**34**	**130**	**µg/Kg-dry**	1	4/28/2017 23:06
Surr: 1,2-Dichloroethane-d4	*99.0*			*70-130*	*%REC*	1	4/28/2017 23:06
Surr: 4-Bromofluorobenzene	*101*			*70-130*	*%REC*	1	4/28/2017 23:06
Surr: Dibromofluoromethane	*88.2*			*70-130*	*%REC*	1	4/28/2017 23:06
Surr: Toluene-d8	*99.1*			*70-130*	*%REC*	1	4/28/2017 23:06

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**9.3**	**0.025**	**0.050**	**% of sample**	1	4/27/2017 12:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB20 (2-4)-042417
Collection Date: 4/24/2017 02:05 PM

Work Order: 17041370
Lab ID: 17041370-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method: **SW8082**			Prep: SW3546 / 4/27/17		Analyst: **EB**
Aroclor 1016	U		9.5	73	µg/Kg-dry	1	4/29/2017 07:04
Aroclor 1221	U		9.5	73	µg/Kg-dry	1	4/29/2017 07:04
Aroclor 1232	U		9.5	73	µg/Kg-dry	1	4/29/2017 07:04
Aroclor 1242	U		9.5	73	µg/Kg-dry	1	4/29/2017 07:04
Aroclor 1248	U		9.5	73	µg/Kg-dry	1	4/29/2017 07:04
Aroclor 1254	U		6.6	73	µg/Kg-dry	1	4/29/2017 07:04
Aroclor 1260	**40**	J	**6.6**	**73**	**µg/Kg-dry**	1	4/29/2017 07:04
Aroclor 1262	U		6.6	73	µg/Kg-dry	1	4/29/2017 07:04
Aroclor 1268	U		6.6	73	µg/Kg-dry	1	4/29/2017 07:04
Surr: Decachlorobiphenyl	*62.2*			*40-140*	*%REC*	1	4/29/2017 07:04
Surr: Tetrachloro-m-xylene	*68.0*			*45-124*	*%REC*	1	4/29/2017 07:04
PESTICIDES		Method: **SW8081A**			Prep: SW3546 / 4/27/17		Analyst: **JF**
4,4´-DDD	U		120	550	µg/Kg-dry	50	5/1/2017 20:10
4,4´-DDE	U		110	550	µg/Kg-dry	50	5/1/2017 20:10
4,4´-DDT	U		87	550	µg/Kg-dry	50	5/1/2017 20:10
Aldrin	U		110	550	µg/Kg-dry	50	5/1/2017 20:10
alpha-BHC	U		110	550	µg/Kg-dry	50	5/1/2017 20:10
alpha-Chlordane	U		100	550	µg/Kg-dry	50	5/1/2017 20:10
beta-BHC	U		100	550	µg/Kg-dry	50	5/1/2017 20:10
Chlordane, Technical	U		540	1,400	µg/Kg-dry	50	5/1/2017 20:10
delta-BHC	U		280	550	µg/Kg-dry	50	5/1/2017 20:10
Dieldrin	U		100	550	µg/Kg-dry	50	5/1/2017 20:10
Endosulfan I	U		88	550	µg/Kg-dry	50	5/1/2017 20:10
Endosulfan II	U		100	550	µg/Kg-dry	50	5/1/2017 20:10
Endosulfan sulfate	U		110	550	µg/Kg-dry	50	5/1/2017 20:10
Endrin	U		110	550	µg/Kg-dry	50	5/1/2017 20:10
Endrin aldehyde	U		95	550	µg/Kg-dry	50	5/1/2017 20:10
Endrin ketone	U		100	550	µg/Kg-dry	50	5/1/2017 20:10
gamma-BHC (Lindane)	U		130	550	µg/Kg-dry	50	5/1/2017 20:10
gamma-Chlordane	U		120	550	µg/Kg-dry	50	5/1/2017 20:10
Heptachlor	U		150	550	µg/Kg-dry	50	5/1/2017 20:10
Heptachlor epoxide	U		100	550	µg/Kg-dry	50	5/1/2017 20:10
Methoxychlor	U		94	550	µg/Kg-dry	50	5/1/2017 20:10
Toxaphene	U		590	3,300	µg/Kg-dry	50	5/1/2017 20:10
Surr: Decachlorobiphenyl	*97.3*			*50-150*	*%REC*	50	5/1/2017 20:10
Surr: Tetrachloro-m-xylene	*79.8*			*50-150*	*%REC*	50	5/1/2017 20:10
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/27/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB20 (2-4)-042417
Collection Date: 4/24/2017 02:05 PM

Work Order: 17041370
Lab ID: 17041370-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	**0.043**		**0.0025**	**0.015**	**mg/Kg-dry**	1	4/27/2017 13:12
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3050B / 4/27/17		Analyst: **JF**
Arsenic	**5.8**		**0.24**	**1.7**	**mg/Kg-dry**	4	4/28/2017 18:21
Barium	**88**		**0.23**	**1.7**	**mg/Kg-dry**	4	4/28/2017 18:21
Cadmium	**0.32**	J	**0.013**	**0.66**	**mg/Kg-dry**	4	4/28/2017 18:21
Chromium	**20**		**0.079**	**1.7**	**mg/Kg-dry**	4	4/28/2017 18:21
Lead	**110**		**0.26**	**17**	**mg/Kg-dry**	40	5/1/2017 19:20
Selenium	**1.1**	J	**0.50**	**1.7**	**mg/Kg-dry**	4	4/28/2017 18:21
Silver	**0.093**	J	**0.013**	**1.7**	**mg/Kg-dry**	4	4/28/2017 18:21
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3546 / 4/28/17		Analyst: **RS**
2-Chloronaphthalene	U		4.6	46	µg/Kg-dry	1	4/29/2017 01:58
2-Methylnaphthalene	U		7.6	46	µg/Kg-dry	1	4/29/2017 01:58
Acenaphthene	**59**		**3.3**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Acenaphthylene	**550**		**4.1**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Anthracene	**420**		**1.7**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Benzo(a)anthracene	**660**		**2.8**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Benzo(a)pyrene	**380**		**1.2**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Benzo(b)fluoranthene	**690**		**1.8**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Benzo(g,h,i)perylene	**110**		**3.1**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Benzo(k)fluoranthene	**210**		**2.4**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Chrysene	**460**		**1.8**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Dibenzo(a,h)anthracene	U		1.5	46	µg/Kg-dry	1	4/29/2017 01:58
Fluoranthene	**1,600**		**1.3**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Fluorene	U		1.5	46	µg/Kg-dry	1	4/29/2017 01:58
Indeno(1,2,3-cd)pyrene	**250**		**1.4**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Naphthalene	U		8.7	46	µg/Kg-dry	1	4/29/2017 01:58
Phenanthrene	**490**		**1.6**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Pyrene	**750**		**1.7**	**46**	**µg/Kg-dry**	1	4/29/2017 01:58
Surr: 2-Fluorobiphenyl	*83.1*			*20-140*	*%REC*	1	4/29/2017 01:58
Surr: 4-Terphenyl-d14	*55.0*			*22-172*	*%REC*	1	4/29/2017 01:58
Surr: Nitrobenzene-d5	*82.1*			*8-140*	*%REC*	1	4/29/2017 01:58
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 4/27/17		Analyst: **AK**
1,1,1-Trichloroethane	U		11	37	µg/Kg-dry	1	5/1/2017 17:13
1,1,2,2-Tetrachloroethane	U		9.0	37	µg/Kg-dry	1	5/1/2017 17:13
1,1,2-Trichloroethane	U		11	37	µg/Kg-dry	1	5/1/2017 17:13
1,1-Dichloroethane	U		9.5	37	µg/Kg-dry	1	5/1/2017 17:13
1,1-Dichloroethene	U		10	37	µg/Kg-dry	1	5/1/2017 17:13
1,2-Dichloroethane	U		10	37	µg/Kg-dry	1	5/1/2017 17:13

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDSB20 (2-4)-042417
Collection Date: 4/24/2017 02:05 PM

Work Order: 17041370
Lab ID: 17041370-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		10	37	µg/Kg-dry	1	5/1/2017 17:13
2-Butanone	**130**	J	**50**	**250**	**µg/Kg-dry**	1	5/1/2017 17:13
2-Hexanone	U		25	37	µg/Kg-dry	1	5/1/2017 17:13
4-Methyl-2-pentanone	U		27	37	µg/Kg-dry	1	5/1/2017 17:13
Acetone	U		68	120	µg/Kg-dry	1	5/1/2017 17:13
Benzene	U		8.5	37	µg/Kg-dry	1	5/1/2017 17:13
Bromodichloromethane	U		10	37	µg/Kg-dry	1	5/1/2017 17:13
Bromoform	U		13	37	µg/Kg-dry	1	5/1/2017 17:13
Bromomethane	U		16	94	µg/Kg-dry	1	5/1/2017 17:13
Carbon disulfide	U		13	37	µg/Kg-dry	1	5/1/2017 17:13
Carbon tetrachloride	U		6.6	37	µg/Kg-dry	1	5/1/2017 17:13
Chlorobenzene	U		11	37	µg/Kg-dry	1	5/1/2017 17:13
Chloroethane	U		24	120	µg/Kg-dry	1	5/1/2017 17:13
Chloroform	U		13	37	µg/Kg-dry	1	5/1/2017 17:13
cis-1,2-Dichloroethene	U		11	37	µg/Kg-dry	1	5/1/2017 17:13
cis-1,3-Dichloropropene	U		14	37	µg/Kg-dry	1	5/1/2017 17:13
Dibromochloromethane	U		8.5	37	µg/Kg-dry	1	5/1/2017 17:13
Ethylbenzene	U		8.7	37	µg/Kg-dry	1	5/1/2017 17:13
Methyl tert-butyl ether	U		12	37	µg/Kg-dry	1	5/1/2017 17:13
Methylene chloride	U		17	37	µg/Kg-dry	1	5/1/2017 17:13
Styrene	U		26	37	µg/Kg-dry	1	5/1/2017 17:13
Tetrachloroethene	U		18	37	µg/Kg-dry	1	5/1/2017 17:13
Toluene	**17**	J	**12**	**37**	**µg/Kg-dry**	1	5/1/2017 17:13
trans-1,2-Dichloroethene	U		11	37	µg/Kg-dry	1	5/1/2017 17:13
trans-1,3-Dichloropropene	U		6.7	37	µg/Kg-dry	1	5/1/2017 17:13
Trichloroethene	U		10	37	µg/Kg-dry	1	5/1/2017 17:13
Vinyl chloride	U		12	37	µg/Kg-dry	1	5/1/2017 17:13
Xylenes, Total	U		29	110	µg/Kg-dry	1	5/1/2017 17:13
Surr: 1,2-Dichloroethane-d4	*104*			*70-130*	*%REC*	1	5/1/2017 17:13
Surr: 4-Bromofluorobenzene	*100*			*70-130*	*%REC*	1	5/1/2017 17:13
Surr: Dibromofluoromethane	*95.6*			*70-130*	*%REC*	1	5/1/2017 17:13
Surr: Toluene-d8	*96.1*			*70-130*	*%REC*	1	5/1/2017 17:13

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**11**	**0.025**	**0.050**	**% of sample**	1	4/27/2017 12:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: Trip Blank
Collection Date: 4/24/2017

Work Order: 17041370
Lab ID: 17041370-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260B**					Analyst: **EMR**
1,1,1-Trichloroethane	U		0.19	6.1	µg/Kg	1.22	4/27/2017 17:59
1,1,2,2-Tetrachloroethane	U		0.14	6.1	µg/Kg	1.22	4/27/2017 17:59
1,1,2-Trichloroethane	U		0.75	6.1	µg/Kg	1.22	4/27/2017 17:59
1,1-Dichloroethane	U		0.16	6.1	µg/Kg	1.22	4/27/2017 17:59
1,1-Dichloroethene	U		0.21	6.1	µg/Kg	1.22	4/27/2017 17:59
1,2-Dichloroethane	U		0.19	6.1	µg/Kg	1.22	4/27/2017 17:59
1,2-Dichloropropane	U		0.43	6.1	µg/Kg	1.22	4/27/2017 17:59
2-Butanone	U		1.0	12	µg/Kg	1.22	4/27/2017 17:59
2-Hexanone	U		0.81	6.1	µg/Kg	1.22	4/27/2017 17:59
4-Methyl-2-pentanone	U		0.23	6.1	µg/Kg	1.22	4/27/2017 17:59
Acetone	U		1.9	12	µg/Kg	1.22	4/27/2017 17:59
Benzene	U		0.12	6.1	µg/Kg	1.22	4/27/2017 17:59
Bromodichloromethane	U		0.13	6.1	µg/Kg	1.22	4/27/2017 17:59
Bromoform	U		0.18	6.1	µg/Kg	1.22	4/27/2017 17:59
Bromomethane	U		0.37	12	µg/Kg	1.22	4/27/2017 17:59
Carbon disulfide	U		0.23	6.1	µg/Kg	1.22	4/27/2017 17:59
Carbon tetrachloride	U		0.29	6.1	µg/Kg	1.22	4/27/2017 17:59
Chlorobenzene	U		0.20	6.1	µg/Kg	1.22	4/27/2017 17:59
Chloroethane	U		0.64	6.1	µg/Kg	1.22	4/27/2017 17:59
Chloroform	U		0.25	6.1	µg/Kg	1.22	4/27/2017 17:59
Chloromethane	U		0.32	12	µg/Kg	1.22	4/27/2017 17:59
cis-1,2-Dichloroethene	U		0.15	6.1	µg/Kg	1.22	4/27/2017 17:59
cis-1,3-Dichloropropene	U		0.14	6.1	µg/Kg	1.22	4/27/2017 17:59
Dibromochloromethane	U		0.18	6.1	µg/Kg	1.22	4/27/2017 17:59
Ethylbenzene	U		0.14	6.1	µg/Kg	1.22	4/27/2017 17:59
Methyl tert-butyl ether	U		0.23	6.1	µg/Kg	1.22	4/27/2017 17:59
Methylene chloride	U		0.17	6.1	µg/Kg	1.22	4/27/2017 17:59
Styrene	U		0.36	6.1	µg/Kg	1.22	4/27/2017 17:59
Tetrachloroethene	U		0.27	6.1	µg/Kg	1.22	4/27/2017 17:59
Toluene	**0.28**	J	**0.15**	**6.1**	**µg/Kg**	1.22	4/27/2017 17:59
trans-1,2-Dichloroethene	U		0.28	6.1	µg/Kg	1.22	4/27/2017 17:59
trans-1,3-Dichloropropene	U		0.20	6.1	µg/Kg	1.22	4/27/2017 17:59
Trichloroethene	U		0.23	6.1	µg/Kg	1.22	4/27/2017 17:59
Vinyl chloride	U		0.20	6.1	µg/Kg	1.22	4/27/2017 17:59
Xylenes, Total	U		0.66	6.1	µg/Kg	1.22	4/27/2017 17:59
Surr: 1,2-Dichloroethane-d4	*109*			*70-120*	*%REC*	1.22	4/27/2017 17:59
Surr: 4-Bromofluorobenzene	*100*			*75-120*	*%REC*	1.22	4/27/2017 17:59
Surr: Dibromofluoromethane	*104*			*85-115*	*%REC*	1.22	4/27/2017 17:59

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *04-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: Trip Blank
Collection Date: 4/24/2017

Work Order: 17041370
Lab ID: 17041370-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	*102*			*85-120*	*%REC*	1.22	4/27/2017 17:59

Note: See Qualifiers page for a list of qualifiers and their definitions.

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
% Passing	Percent Passing
µg/Kg	Micrograms per Kilogram
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group, USA

Date: 04-May-17

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101157** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-101157-101157** Units: **µg/Kg** Analysis Date: **4/27/2017 08:32 PM**

Client ID: Run ID: **GC14_170427A** SeqNo: **4401411** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	67								
Aroclor 1221	U	67								
Aroclor 1232	U	67								
Aroclor 1242	U	67								
Aroclor 1248	U	67								
Aroclor 1254	U	67								
Aroclor 1260	U	67								
Aroclor 1262	U	67								
Aroclor 1268	U	67								
Surr: Decachlorobiphenyl	*24.22*	0	*33.3*	0	*72.7*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*24.54*	0	*33.3*	0	*73.7*	*45-124*	0			

LCS Sample ID: **PLCSS1-101157-101157** Units: **µg/Kg** Analysis Date: **4/27/2017 08:47 PM**

Client ID: Run ID: **GC14_170427A** SeqNo: **4401412** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	749.6	67	833	0	90	50-130	0			
Aroclor 1260	738.6	67	833	0	88.7	50-130	0			
Surr: Decachlorobiphenyl	*22.46*	0	*33.3*	0	*67.5*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*22.3*	0	*33.3*	0	*67*	*45-124*	0			

MS Sample ID: **17041422-26A MS** Units: **µg/Kg** Analysis Date: **4/27/2017 09:15 PM**

Client ID: Run ID: **GC14_170427A** SeqNo: **4401414** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	794.2	67	831.2	0	95.5	40-140	0			
Aroclor 1260	777.9	67	831.2	0	93.6	40-140	0			
Surr: Decachlorobiphenyl	*19.96*	0	*33.23*	0	*60.1*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*22.25*	0	*33.23*	0	*67*	*45-124*	0			

MSD Sample ID: **17041422-26A MSD** Units: **µg/Kg** Analysis Date: **4/27/2017 09:30 PM**

Client ID: Run ID: **GC14_170427A** SeqNo: **4401415** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	791.5	66	829.7	0	95.4	40-140	794.2	0.338	50	
Aroclor 1260	813.9	66	829.7	0	98.1	40-140	777.9	4.52	50	
Surr: Decachlorobiphenyl	*22.49*	0	*33.17*	0	*67.8*	*40-140*	19.96	*11.9*	*50*	
Surr: Tetrachloro-m-xylene	*22.17*	0	*33.17*	0	*66.9*	*45-124*	22.25	*0.366*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101157** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

17041370-01B	17041370-03B	17041370-04B
17041370-05B	17041370-06B	17041370-07B
17041370-08B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101169** Instrument ID **GC12** Method: **SW8081A**

MBLK Sample ID: **PBLKS1-101169-101169** Units: **µg/Kg** Analysis Date: **5/1/2017 01:35 PM**

Client ID: Run ID: **GC12_170501A** SeqNo: **4405523** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	U	10								
4,4´-DDE	U	10								
4,4´-DDT	U	10								
Aldrin	U	10								
alpha-BHC	U	10								
alpha-Chlordane	U	10								
beta-BHC	U	10								
Chlordane, Technical	U	25								
delta-BHC	U	10								
Dieldrin	U	10								
Endosulfan I	U	10								
Endosulfan II	U	10								
Endosulfan sulfate	U	10								
Endrin	U	10								
Endrin aldehyde	U	10								
Endrin ketone	U	10								
gamma-BHC (Lindane)	U	10								
gamma-Chlordane	U	10								
Heptachlor	U	10								
Heptachlor epoxide	U	10								
Methoxychlor	U	10								
Toxaphene	U	60								
Surr: Decachlorobiphenyl	*24.58*	0	*33.3*	0	*73.8*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*24.2*	0	*33.3*	0	*72.7*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101169** Instrument ID **GC12** Method: **SW8081A**

LCS Sample ID: **PLCSS1-101169-101169** Units: **µg/Kg** Analysis Date: **5/1/2017 01:48 PM**

Client ID: Run ID: **GC12_170501A** SeqNo: **4405524** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	42.95	10	33.33	0	129	50-150	0			
4,4´-DDE	42.58	10	33.33	0	128	50-150	0			
4,4´-DDT	45.56	10	33.33	0	137	50-150	0			
Aldrin	42.31	10	33.33	0	127	50-150	0			
alpha-BHC	43.9	10	33.33	0	132	50-150	0			
alpha-Chlordane	41.1	10	33.33	0	123	50-150	0			
beta-BHC	39.18	10	33.33	0	118	50-150	0			
delta-BHC	43.4	10	33.33	0	130	50-150	0			
Dieldrin	41.7	10	33.33	0	125	50-150	0			
Endosulfan I	41.27	10	33.33	0	124	50-150	0			
Endosulfan II	41.02	10	33.33	0	123	50-150	0			
Endosulfan sulfate	41.12	10	33.33	0	123	50-150	0			
Endrin	43.32	10	33.33	0	130	50-150	0			
Endrin aldehyde	39.96	10	33.33	0	120	50-150	0			
Endrin ketone	40.56	10	33.33	0	122	50-150	0			
gamma-BHC (Lindane)	43.22	10	33.33	0	130	50-150	0			
gamma-Chlordane	41.85	10	33.33	0	126	50-150	0			
Heptachlor	42.62	10	33.33	0	128	50-150	0			
Heptachlor epoxide	41.12	10	33.33	0	123	50-150	0			
Methoxychlor	41.98	10	33.33	0	126	50-150	0			
Surr: Decachlorobiphenyl	*24.78*	0	*33.3*	0	*74.4*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*24.5*	0	*33.3*	0	*73.6*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101169** Instrument ID **GC12** Method: **SW8081A**

MS Sample ID: **17041370-05B MS** Units: **µg/Kg** Analysis Date: **5/1/2017 07:17 PM**

Client ID: **TDSB19 (2-4)-042417** Run ID: **GC12_170501A** SeqNo: **4405536** Prep Date: **4/27/2017** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	U	490	32.9	0	0	50-150	0			S
4,4´-DDE	U	490	32.9	0	0	50-150	0			S
4,4´-DDT	U	490	32.9	0	0	50-150	0			S
Aldrin	U	490	32.9	0	0	50-150	0			S
alpha-BHC	U	490	32.9	0	0	50-150	0			S
alpha-Chlordane	U	490	32.9	0	0	50-150	0			S
beta-BHC	U	490	32.9	0	0	50-150	0			S
delta-BHC	U	490	32.9	0	0	50-150	0			S
Dieldrin	U	490	32.9	0	0	50-150	0			S
Endosulfan I	U	490	32.9	0	0	50-150	0			S
Endosulfan II	U	490	32.9	0	0	50-150	0			S
Endosulfan sulfate	U	490	32.9	0	0	50-150	0			S
Endrin	U	490	32.9	0	0	50-150	0			S
Endrin aldehyde	U	490	32.9	0	0	50-150	0			S
Endrin ketone	U	490	32.9	0	0	50-150	0			S
gamma-BHC (Lindane)	U	490	32.9	0	0	50-150	0			S
gamma-Chlordane	U	490	32.9	0	0	50-150	0			S
Heptachlor	U	490	32.9	0	0	50-150	0			S
Heptachlor epoxide	U	490	32.9	0	0	50-150	0			S
Methoxychlor	U	490	32.9	0	0	50-150	0			S
Surr: Decachlorobiphenyl	*26.57*	0	*32.87*	0	*80.8*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*23.11*	0	*32.87*	0	*70.3*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101169** Instrument ID **GC12** Method: **SW8081A**

MSD Sample ID: **17041370-05B MSD** Units: **µg/Kg** Analysis Date: **5/1/2017 07:30 PM**

Client ID: **TDSB19 (2-4)-042417** Run ID: **GC12_170501A** SeqNo: **4405537** Prep Date: **4/27/2017** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	U	500	33.1	0	0	50-150	34.3	0	35	S
4,4´-DDE	U	500	33.1	0	0	50-150	29.94	0	35	S
4,4´-DDT	U	500	33.1	0	0	50-150	35.37	0	35	S
Aldrin	U	500	33.1	0	0	50-150	29.94	0	35	S
alpha-BHC	U	500	33.1	0	0	50-150	30.19	0	35	S
alpha-Chlordane	U	500	33.1	0	0	50-150	33.89	0	35	S
beta-BHC	U	500	33.1	0	0	50-150	33.23	0	35	S
delta-BHC	U	500	33.1	0	0	50-150	29.28	0	35	S
Dieldrin	U	500	33.1	0	0	50-150	35.86	0	35	S
Endosulfan I	U	500	33.1	0	0	50-150	31.42	0	35	S
Endosulfan II	U	500	33.1	0	0	50-150	31.26	0	35	S
Endosulfan sulfate	U	500	33.1	0	0	50-150	32.74	0	35	S
Endrin	U	500	33.1	0	0	50-150	32.9	0	35	S
Endrin aldehyde	U	500	33.1	0	0	50-150	36.69	0	35	S
Endrin ketone	U	500	33.1	0	0	50-150	38.17	0	35	S
gamma-BHC (Lindane)	U	500	33.1	0	0	50-150	29.78	0	35	S
gamma-Chlordane	U	500	33.1	0	0	50-150	30.93	0	35	S
Heptachlor	U	500	33.1	0	0	50-150	31.42	0	35	S
Heptachlor epoxide	U	500	33.1	0	0	50-150	31.83	0	35	S
Methoxychlor	U	500	33.1	0	0	50-150	32.82	0	35	S
Surr: Decachlorobiphenyl	*29.88*	0	*33.07*	0	*90.3*	*50-150*	26.57	*11.7*	*35*	
Surr: Tetrachloro-m-xylene	*21.6*	0	*33.07*	0	*65.3*	*50-150*	23.11	*6.77*	*35*	

The following samples were analyzed in this batch:

17041370-01B	17041370-03B	17041370-04B
17041370-05B	17041370-06B	17041370-07B
17041370-08B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101139** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-101139-101139** Units: **mg/Kg** Analysis Date: **4/27/2017 12:37 PM**

Client ID: Run ID: **HG1_170427A** SeqNo: **4400882** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.020								

LCS Sample ID: **LCS-101139-101139** Units: **mg/Kg** Analysis Date: **4/27/2017 12:39 PM**

Client ID: Run ID: **HG1_170427A** SeqNo: **4400883** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1767	0.020	0.1665	0	106	80-120	0			

MS Sample ID: **17041418-03BMS** Units: **mg/Kg** Analysis Date: **4/27/2017 01:30 PM**

Client ID: Run ID: **HG1_170427A** SeqNo: **4400903** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1473	0.013	0.1082	0.01418	123	75-125	0			

MSD Sample ID: **17041418-03BMSD** Units: **mg/Kg** Analysis Date: **4/27/2017 01:33 PM**

Client ID: Run ID: **HG1_170427A** SeqNo: **4400904** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1361	0.013	0.1066	0.01418	114	75-125	0.1473	7.96	35	

The following samples were analyzed in this batch:

17041370-01B	17041370-03B	17041370-04B
17041370-05B	17041370-06B	17041370-07B
17041370-08B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101184** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-101184-101184** Units: **mg/Kg** Analysis Date: **4/28/2017 04:51 PM**

Client ID: Run ID: **ICPMS1_170428A** SeqNo: **4404014** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Barium	U	0.25								
Cadmium	U	0.10								
Chromium	0.0158	0.25								J
Lead	U	0.25								
Selenium	U	0.25								
Silver	U	0.25								

LCS Sample ID: **LCS-101184-101184** Units: **mg/Kg** Analysis Date: **4/28/2017 04:57 PM**

Client ID: Run ID: **ICPMS1_170428A** SeqNo: **4404016** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.653	0.25	5	0	93.1	80-120	0			
Barium	4.937	0.25	5	0	98.7	80-120	0			
Cadmium	4.628	0.10	5	0	92.6	80-120	0			
Chromium	5.125	0.25	5	0	102	80-120	0			
Lead	5.085	0.25	5	0	102	80-120	0			
Selenium	4.418	0.25	5	0	88.4	80-120	0			
Silver	4.79	0.25	5	0	95.8	80-120	0			

MS Sample ID: **17041290-01BMS** Units: **mg/Kg** Analysis Date: **4/28/2017 05:09 PM**

Client ID: Run ID: **ICPMS1_170428A** SeqNo: **4404020** Prep Date: **4/27/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.171	1.4	6.793	2.38	85.2	75-125	0			
Barium	39.62	1.4	6.793	40.73	-16.4	75-125	0			SO
Cadmium	6.418	0.54	6.793	0.09425	93.1	75-125	0			
Chromium	13.7	1.4	6.793	4.421	137	75-125	0			S
Lead	12.27	1.4	6.793	7.373	72.1	75-125	0			S
Selenium	6.5	1.4	6.793	0.409	89.7	75-125	0			
Silver	6.323	1.4	6.793	0.01945	92.8	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101184** Instrument ID **ICPMS1** Method: **SW6020A**

MSD Sample ID: **17041290-01BMSD** Units: **mg/Kg** Analysis Date: **4/28/2017 05:33 PM**

Client ID: Run ID: **ICPMS1_170428A** SeqNo: **4404025** Prep Date: **4/27/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.761	1.4	6.793	2.38	109	75-125	8.171	17.7	20	
Barium	46.96	1.4	6.793	40.73	91.6	75-125	39.62	16.9	20	O
Cadmium	6.986	0.54	6.793	0.09425	101	75-125	6.418	8.47	20	
Chromium	13	1.4	6.793	4.421	126	75-125	13.7	5.21	20	S
Selenium	7.326	1.4	6.793	0.409	102	75-125	6.5	11.9	20	
Silver	6.965	1.4	6.793	0.01945	102	75-125	6.323	9.65	20	

MSD Sample ID: **17041290-01BMSD** Units: **mg/Kg** Analysis Date: **5/1/2017 06:32 PM**

Client ID: Run ID: **ICPMS1_170501A** SeqNo: **4406267** Prep Date: **4/27/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	12.5	1.4	6.793	5.742	99.5	75-125	12.82	2.55	20	

The following samples were analyzed in this batch:

17041370-01B	17041370-03B	17041370-04B
17041370-05B	17041370-06B	17041370-07B
17041370-08B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101213** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-101213-101213** Units: **µg/Kg** Analysis Date: **4/28/2017 06:33 PM**

Client ID: Run ID: **SVMS6_170428A** SeqNo: **4405974** Prep Date: **4/28/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	U	42								
2-Methylnaphthalene	U	42								
Acenaphthene	U	42								
Acenaphthylene	U	42								
Anthracene	U	42								
Benzo(a)anthracene	U	42								
Benzo(a)pyrene	U	42								
Benzo(b)fluoranthene	U	42								
Benzo(g,h,i)perylene	U	42								
Benzo(k)fluoranthene	U	42								
Chrysene	U	42								
Dibenzo(a,h)anthracene	U	42								
Fluoranthene	U	42								
Fluorene	U	42								
Indeno(1,2,3-cd)pyrene	U	42								
Naphthalene	U	42								
Phenanthrene	U	42								
Pyrene	U	42								
Surr: 2-Fluorobiphenyl	*2599*	0	*3333*	0	*78*	*20-140*	0			
Surr: 4-Terphenyl-d14	*1833*	0	*3333*	0	*55*	*22-172*	0			
Surr: Nitrobenzene-d5	*2668*	0	*3333*	0	*80*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101213** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-101213-101213** Units: **µg/Kg** Analysis Date: **4/28/2017 06:58 PM**

Client ID: Run ID: **SVMS6_170428A** SeqNo: **4405975** Prep Date: **4/28/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1519	42	1333	0	114	50-140	0			
2-Methylnaphthalene	1499	42	1333	0	112	50-140	0			
Acenaphthene	1270	42	1333	0	95.3	60-140	0			
Acenaphthylene	1346	42	1333	0	101	60-140	0			
Anthracene	1845	42	1333	0	138	60-140	0			
Benzo(a)anthracene	1326	42	1333	0	99.4	60-140	0			
Benzo(a)pyrene	1634	42	1333	0	123	60-140	0			
Benzo(b)fluoranthene	1175	42	1333	0	88.1	60-140	0			
Benzo(g,h,i)perylene	1421	42	1333	0	107	60-140	0			
Benzo(k)fluoranthene	1498	42	1333	0	112	60-140	0			
Chrysene	1392	42	1333	0	104	60-140	0			
Dibenzo(a,h)anthracene	1420	42	1333	0	106	60-140	0			
Fluoranthene	1588	42	1333	0	119	60-140	0			
Fluorene	1513	42	1333	0	114	60-140	0			
Indeno(1,2,3-cd)pyrene	1312	42	1333	0	98.4	60-140	0			
Naphthalene	1281	42	1333	0	96.1	40-140	0			
Phenanthrene	1349	42	1333	0	101	60-140	0			
Pyrene	1391	42	1333	0	104	60-140	0			
Surr: 2-Fluorobiphenyl	*2601*	0	*3333*	0	*78*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2324*	0	*3333*	0	*69.7*	*22-172*	0			
Surr: Nitrobenzene-d5	*2787*	0	*3333*	0	*83.6*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101213** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **17041370-07B MS** Units: **µg/Kg** Analysis Date: **4/28/2017 07:23 PM**

Client ID: **TDSB17 (2-4)-042417** Run ID: **SVMS6_170428A** SeqNo: **4405976** Prep Date: **4/28/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1197	41	1311	0	91.3	50-140	0			
2-Methylnaphthalene	1267	41	1311	95.77	89.4	50-140	0			
Acenaphthene	1029	41	1311	130.4	68.5	60-140	0			
Acenaphthylene	1340	41	1311	433.1	69.2	60-140	0			
Anthracene	1977	41	1311	2078	-7.68	60-140	0			S
Benzo(a)anthracene	3014	41	1311	3053	-2.99	60-140	0			S
Benzo(a)pyrene	2601	41	1311	2423	13.6	60-140	0			S
Benzo(b)fluoranthene	3177	41	1311	3149	2.11	60-140	0			S
Benzo(g,h,i)perylene	1347	41	1311	720.7	47.8	60-140	0			S
Benzo(k)fluoranthene	1854	41	1311	1293	42.8	60-140	0			S
Chrysene	2452	41	1311	2149	23.2	60-140	0			S
Dibenzo(a,h)anthracene	1406	41	1311	0	107	60-140	0			
Fluoranthene	5267	41	1311	8543	-250	60-140	0			SO
Fluorene	1221	41	1311	205.3	77.5	60-140	0			
Indeno(1,2,3-cd)pyrene	1478	41	1311	1288	14.5	60-140	0			S
Naphthalene	1116	41	1311	139.5	74.5	40-140	0			
Phenanthrene	2396	41	1311	3010	-46.8	60-140	0			S
Pyrene	3643	41	1311	4608	-73.6	60-140	0			S
Surr: 2-Fluorobiphenyl	*1948*	0	*3278*	0	*59.4*	*20-140*	0			
Surr: 4-Terphenyl-d14	*1188*	0	*3278*	0	*36.2*	*22-172*	0			
Surr: Nitrobenzene-d5	*2220*	0	*3278*	0	*67.7*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101213** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **17041370-07B MSD** Units: **µg/Kg** Analysis Date: **4/28/2017 07:47 PM**

Client ID: **TDSB17 (2-4)-042417** Run ID: **SVMS6_170428A** SeqNo: **4405977** Prep Date: **4/28/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	1253	41	1317	0	95.1	50-140	1197	4.54	30	
2-Methylnaphthalene	1313	41	1317	95.77	92.4	50-140	1267	3.52	30	
Acenaphthene	1086	41	1317	130.4	72.5	60-140	1029	5.39	30	
Acenaphthylene	1581	41	1317	433.1	87.1	60-140	1340	16.5	30	
Anthracene	2241	41	1317	2078	12.4	60-140	1977	12.5	30	S
Benzo(a)anthracene	3922	41	1317	3053	65.9	60-140	3014	26.2	30	
Benzo(a)pyrene	3386	41	1317	2423	73.1	60-140	2601	26.3	30	
Benzo(b)fluoranthene	4194	41	1317	3149	79.3	60-140	3177	27.6	30	
Benzo(g,h,i)perylene	1560	41	1317	720.7	63.7	60-140	1347	14.7	30	
Benzo(k)fluoranthene	2632	41	1317	1293	102	60-140	1854	34.7	30	R
Chrysene	3459	41	1317	2149	99.5	60-140	2452	34.1	30	R
Dibenzo(a,h)anthracene	1590	41	1317	0	121	60-140	1406	12.3	30	
Fluoranthene	7182	41	1317	8543	-103	60-140	5267	30.8	30	SREO
Fluorene	1254	41	1317	205.3	79.6	60-140	1221	2.67	30	
Indeno(1,2,3-cd)pyrene	1617	41	1317	1288	25	60-140	1478	9.02	30	S
Naphthalene	1194	41	1317	139.5	80.1	40-140	1116	6.75	30	
Phenanthrene	3149	41	1317	3010	10.6	60-140	2396	27.2	30	S
Pyrene	5202	41	1317	4608	45.1	60-140	3643	35.2	30	SR
Surr: 2-Fluorobiphenyl	*2068*	0	*3294*	0	*62.8*	*20-140*	1948	*5.98*	*30*	
Surr: 4-Terphenyl-d14	*1244*	0	*3294*	0	*37.8*	*22-172*	1188	*4.67*	*30*	
Surr: Nitrobenzene-d5	*2290*	0	*3294*	0	*69.5*	*8-140*	2220	*3.09*	*30*	

The following samples were analyzed in this batch:

17041370-01B	17041370-03B	17041370-04B
17041370-05B	17041370-06B	17041370-07B
17041370-08B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101193** Instrument ID **VMS6** Method: **SW8260B**

MBLK Sample ID: **MBLK-101193-101193** Units: **µg/Kg-dry** Analysis Date: **4/27/2017 11:39 AM**

Client ID: Run ID: **VMS6_170427A** SeqNo: **4401378** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	30	0	0	0	0-0	0			
1,1,2,2-Tetrachloroethane	U	30	0	0	0	0-0	0			
1,1,2-Trichloroethane	U	30	0	0	0	0-0	0			
1,1-Dichloroethane	U	30	0	0	0	0-0	0			
1,1-Dichloroethene	U	30	0	0	0	0-0	0			
1,2-Dichloroethane	U	30	0	0	0	0-0	0			
1,2-Dichloropropane	U	30	0	0	0	0-0	0			
2-Butanone	U	200	0	0	0	0-0	0			
2-Hexanone	U	30	0	0	0	0-0	0			
4-Methyl-2-pentanone	U	30	0	0	0	0-0	0			
Acetone	U	100	0	0	0	0-0	0			
Benzene	U	30	0	0	0	0-0	0			
Bromodichloromethane	U	30	0	0	0	0-0	0			
Bromoform	U	30	0	0	0	0-0	0			
Bromomethane	U	75	0	0	0	0-0	0			
Carbon disulfide	U	30	0	0	0	0-0	0			
Carbon tetrachloride	U	30	0	0	0	0-0	0			
Chlorobenzene	U	30	0	0	0	0-0	0			
Chloroethane	U	100	0	0	0	0-0	0			
Chloroform	U	30	0	0	0	0-0	0			
cis-1,2-Dichloroethene	U	30	0	0	0	0-0	0			
cis-1,3-Dichloropropene	U	30	0	0	0	0-0	0			
Dibromochloromethane	U	30	0	0	0	0-0	0			
Ethylbenzene	U	30	0	0	0	0-0	0			
Methyl tert-butyl ether	U	30	0	0	0	0-0	0			
Methylene chloride	22	30	0	0	0	0-0	0			J
Styrene	U	30	0	0	0	0-0	0			
Tetrachloroethene	U	30	0	0	0	0-0	0			
Toluene	U	30	0	0	0	0-0	0			
trans-1,2-Dichloroethene	U	30	0	0	0	0-0	0			
trans-1,3-Dichloropropene	U	30	0	0	0	0-0	0			
Trichloroethene	U	30	0	0	0	0-0	0			
Vinyl chloride	U	30	0	0	0	0-0	0			
Xylenes, Total	U	90	0	0	0	0-0	0			
Surr: 1,2-Dichloroethane-d4	*1012*	0	*1000*	0	*101*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*991.5*	0	*1000*	0	*99.2*	*70-130*	0			
Surr: Dibromofluoromethane	*883.5*	0	*1000*	0	*88.4*	*70-130*	0			
Surr: Toluene-d8	*988.5*	0	*1000*	0	*98.8*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101193** Instrument ID **VMS6** Method: **SW8260B**

LCS Sample ID: **LCS-101193-101193** Units: **µg/Kg-dry** Analysis Date: **4/27/2017 10:21 AM**

Client ID: Run ID: **VMS6_170427A** SeqNo: **4401377** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1022	30	1000	0	102	70-135	0			
1,1,2,2-Tetrachloroethane	1047	30	1000	0	105	55-130	0			
1,1,2-Trichloroethane	1024	30	1000	0	102	60-125	0			
1,1-Dichloroethane	1032	30	1000	0	103	75-125	0			
1,1-Dichloroethene	1050	30	1000	0	105	65-135	0			
1,2-Dichloroethane	986.5	30	1000	0	98.6	70-135	0			
1,2-Dichloropropane	968.5	30	1000	0	96.8	70-120	0			
2-Butanone	882.5	200	1000	0	88.2	30-160	0			
2-Hexanone	856.5	30	1000	0	85.6	45-145	0			
4-Methyl-2-pentanone	1077	30	1000	0	108	74-176	0			
Acetone	859.5	100	1000	0	86	20-160	0			
Benzene	1020	30	1000	0	102	75-125	0			
Bromodichloromethane	970.5	30	1000	0	97	70-130	0			
Bromoform	780.5	30	1000	0	78	55-135	0			
Bromomethane	1012	75	1000	0	101	50-170	0			
Carbon disulfide	982	30	1000	0	98.2	45-160	0			
Carbon tetrachloride	1024	30	1000	0	102	65-135	0			
Chlorobenzene	997.5	30	1000	0	99.8	75-125	0			
Chloroethane	1010	100	1000	0	101	40-155	0			
Chloroform	992.5	30	1000	0	99.2	70-125	0			
cis-1,2-Dichloroethene	981.5	30	1000	0	98.2	65-125	0			
cis-1,3-Dichloropropene	902.5	30	1000	0	90.2	70-125	0			
Dibromochloromethane	800.5	30	1000	0	80	65-135	0			
Ethylbenzene	1036	30	1000	0	104	75-125	0			
Methyl tert-butyl ether	931	30	1000	0	93.1	75-125	0			
Methylene chloride	979.5	30	1000	0	98	55-145	0			
Styrene	1072	30	1000	0	107	80-138	0			
Tetrachloroethene	1035	30	1000	0	104	67-167	0			
Toluene	1024	30	1000	0	102	70-125	0			
trans-1,2-Dichloroethene	996	30	1000	0	99.6	65-135	0			
trans-1,3-Dichloropropene	900	30	1000	0	90	59-129	0			
Trichloroethene	1012	30	1000	0	101	75-125	0			
Vinyl chloride	961	30	1000	0	96.1	60-125	0			
Xylenes, Total	3142	90	3000	0	105	75-125	0			
Surr: 1,2-Dichloroethane-d4	*997*	0	*1000*	0	*99.7*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1015*	0	*1000*	0	*102*	*70-130*	0			
Surr: Dibromofluoromethane	*986.5*	0	*1000*	0	*98.6*	*70-130*	0			
Surr: Toluene-d8	*988.5*	0	*1000*	0	*98.8*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101193** Instrument ID **VMS6** Method: **SW8260B**

MS Sample ID: **17041511-01A MS** Units: **µg/Kg-dry** Analysis Date: **4/27/2017 07:03 PM**

Client ID: Run ID: **VMS6_170427A** SeqNo: **4401382** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1046	30	1000	0	105	70-135	0			
1,1,2,2-Tetrachloroethane	589.5	30	1000	0	59	55-130	0			
1,1,2-Trichloroethane	962.5	30	1000	0	96.2	60-125	0			
1,1-Dichloroethane	1079	30	1000	0	108	75-125	0			
1,1-Dichloroethene	1160	30	1000	0	116	65-135	0			
1,2-Dichloroethane	1004	30	1000	0	100	70-135	0			
1,2-Dichloropropane	974.5	30	1000	0	97.4	70-120	0			
2-Butanone	1272	200	1000	98.5	117	30-160	0			
2-Hexanone	1059	30	1000	0	106	45-145	0			
4-Methyl-2-pentanone	894	30	1000	0	89.4	74-176	0			
Acetone	1542	100	1000	0	154	20-160	0			
Benzene	1056	30	1000	0	106	75-125	0			
Bromodichloromethane	957	30	1000	0	95.7	70-130	0			
Bromoform	726.5	30	1000	0	72.6	55-135	0			
Bromomethane	244	75	1000	0	24.4	50-170	0			S
Carbon disulfide	1054	30	1000	0	105	45-160	0			
Carbon tetrachloride	1045	30	1000	0	104	65-135	0			
Chlorobenzene	1003	30	1000	0	100	75-125	0			
Chloroethane	1101	100	1000	0	110	40-155	0			
Chloroform	1034	30	1000	0	103	70-125	0			
cis-1,2-Dichloroethene	1023	30	1000	0	102	65-125	0			
cis-1,3-Dichloropropene	873.5	30	1000	0	87.4	70-125	0			
Dibromochloromethane	748	30	1000	0	74.8	65-135	0			
Ethylbenzene	1068	30	1000	0	107	75-125	0			
Methyl tert-butyl ether	946.5	30	1000	0	94.6	75-125	0			
Methylene chloride	1042	30	1000	0	104	55-145	0			
Styrene	1088	30	1000	0	109	80-138	0			
Tetrachloroethene	1890	30	1000	0	189	67-167	0			S
Toluene	1027	30	1000	0	103	70-125	0			
trans-1,2-Dichloroethene	1059	30	1000	0	106	65-135	0			
trans-1,3-Dichloropropene	822	30	1000	0	82.2	59-129	0			
Trichloroethene	1401	30	1000	0	140	75-125	0			S
Vinyl chloride	1101	30	1000	0	110	60-125	0			
Xylenes, Total	3210	90	3000	0	107	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1000*	0	*1000*	0	*100*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1023*	0	*1000*	0	*102*	*70-130*	0			
Surr: Dibromofluoromethane	*984*	0	*1000*	0	*98.4*	*70-130*	0			
Surr: Toluene-d8	*974.5*	0	*1000*	0	*97.4*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101193** Instrument ID **VMS6** Method: **SW8260B**

MSD Sample ID: **17041511-01A MSD** Units: **µg/Kg-dry** Analysis Date: **4/27/2017 07:29 PM**

Client ID: Run ID: **VMS6_170427A** SeqNo: **4401383** Prep Date: **4/27/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	878	30	1000	0	87.8	70-135	1046	17.4	30	
1,1,2,2-Tetrachloroethane	152	30	1000	0	15.2	55-130	589.5	118	30	SR
1,1,2-Trichloroethane	873	30	1000	0	87.3	60-125	962.5	9.75	30	
1,1-Dichloroethane	896.5	30	1000	0	89.6	75-125	1079	18.5	30	
1,1-Dichloroethene	943	30	1000	0	94.3	65-135	1160	20.7	30	
1,2-Dichloroethane	914	30	1000	0	91.4	70-135	1004	9.38	30	
1,2-Dichloropropane	839.5	30	1000	0	84	70-120	974.5	14.9	30	
2-Butanone	1710	200	1000	98.5	161	30-160	1272	29.4	30	S
2-Hexanone	1432	30	1000	0	143	45-145	1059	30	30	
4-Methyl-2-pentanone	910	30	1000	0	91	74-176	894	1.77	30	
Acetone	2226	100	1000	0	223	20-160	1542	36.3	30	SR
Benzene	891.5	30	1000	0	89.2	75-125	1056	16.9	30	
Bromodichloromethane	838.5	30	1000	0	83.8	70-130	957	13.2	30	
Bromoform	674.5	30	1000	0	67.4	55-135	726.5	7.42	30	
Bromomethane	272	75	1000	0	27.2	50-170	244	10.9	30	S
Carbon disulfide	832	30	1000	0	83.2	45-160	1054	23.5	30	
Carbon tetrachloride	838	30	1000	0	83.8	65-135	1045	22	30	
Chlorobenzene	852	30	1000	0	85.2	75-125	1003	16.3	30	
Chloroethane	884.5	100	1000	0	88.4	40-155	1101	21.8	30	
Chloroform	886.5	30	1000	0	88.6	70-125	1034	15.3	30	
cis-1,2-Dichloroethene	854.5	30	1000	0	85.4	65-125	1023	17.9	30	
cis-1,3-Dichloropropene	774.5	30	1000	0	77.4	70-125	873.5	12	30	
Dibromochloromethane	661	30	1000	0	66.1	65-135	748	12.3	30	
Ethylbenzene	884	30	1000	0	88.4	75-125	1068	18.9	30	
Methyl tert-butyl ether	887.5	30	1000	0	88.8	75-125	946.5	6.43	30	
Methylene chloride	910	30	1000	0	91	55-145	1042	13.5	30	
Styrene	933.5	30	1000	0	93.4	80-138	1088	15.3	30	
Tetrachloroethene	1579	30	1000	0	158	67-167	1890	17.9	30	
Toluene	860	30	1000	0	86	70-125	1027	17.7	30	
trans-1,2-Dichloroethene	860.5	30	1000	0	86	65-135	1059	20.7	30	
trans-1,3-Dichloropropene	752	30	1000	0	75.2	59-129	822	8.89	30	
Trichloroethene	1524	30	1000	0	152	75-125	1401	8.44	30	S
Vinyl chloride	879	30	1000	0	87.9	60-125	1101	22.4	30	
Xylenes, Total	2692	90	3000	0	89.7	75-125	3210	17.6	30	
Surr: 1,2-Dichloroethane-d4	*995*	0	*1000*	0	*99.5*	*70-130*	1000	*0.501*	*30*	
Surr: 4-Bromofluorobenzene	*1023*	0	*1000*	0	*102*	*70-130*	1023	*0*	*30*	
Surr: Dibromofluoromethane	*1006*	0	*1000*	0	*101*	*70-130*	984	*2.21*	*30*	
Surr: Toluene-d8	*975*	0	*1000*	0	*97.5*	*70-130*	974.5	*0.0513*	*30*	

The following samples were analyzed in this batch:

17041370-01A	17041370-04A	17041370-05A
17041370-06A	17041370-07A	17041370-08A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210653** Instrument ID **VMS8** Method: **SW8260B**

MBLK Sample ID: **VBLKS1-170427-R210653** Units: **µg/Kg** Analysis Date: **4/27/2017 11:42 AM**

Client ID: Run ID: **VMS8_170427A** SeqNo: **4401461** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	5.0								
1,1,2,2-Tetrachloroethane	U	5.0								
1,1,2-Trichloroethane	U	5.0								
1,1-Dichloroethane	U	5.0								
1,1-Dichloroethene	U	5.0								
1,2-Dichloroethane	U	5.0								
1,2-Dichloropropane	U	5.0								
2-Butanone	U	10								
2-Hexanone	U	5.0								
4-Methyl-2-pentanone	U	5.0								
Acetone	U	10								
Benzene	U	5.0								
Bromodichloromethane	U	5.0								
Bromoform	U	5.0								
Bromomethane	U	10								
Carbon disulfide	U	5.0								
Carbon tetrachloride	U	5.0								
Chlorobenzene	U	5.0								
Chloroethane	U	5.0								
Chloroform	U	5.0								
Chloromethane	U	10								
cis-1,2-Dichloroethene	U	5.0								
cis-1,3-Dichloropropene	U	5.0								
Dibromochloromethane	U	5.0								
Ethylbenzene	U	5.0								
Methyl tert-butyl ether	U	5.0								
Methylene chloride	U	5.0								
Styrene	U	5.0								
Tetrachloroethene	U	5.0								
Toluene	U	5.0								
trans-1,2-Dichloroethene	U	5.0								
trans-1,3-Dichloropropene	U	5.0								
Trichloroethene	U	5.0								
Vinyl chloride	U	5.0								
Xylenes, Total	U	5.0								
Surr: 1,2-Dichloroethane-d4	*19.8*	0	*20*	0	*99*	*70-120*		0		
Surr: 4-Bromofluorobenzene	*19.69*	0	*20*	0	*98.4*	*75-120*		0		
Surr: Dibromofluoromethane	*19.33*	0	*20*	0	*96.6*	*85-115*		0		
Surr: Toluene-d8	*20.5*	0	*20*	0	*102*	*85-120*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210653** Instrument ID **VMS8** Method: **SW8260B**

LCS Sample ID: **VLCSS1-170427-R210653** Units: **µg/Kg** Analysis Date: **4/27/2017 10:57 AM**

Client ID: Run ID: **VMS8_170427A** SeqNo: **4401458** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.24	5.0	20	0	106	70-135	0			
1,1,2,2-Tetrachloroethane	18.16	5.0	20	0	90.8	55-130	0			
1,1,2-Trichloroethane	18.82	5.0	20	0	94.1	60-125	0			
1,1-Dichloroethane	22.14	5.0	20	0	111	75-125	0			
1,1-Dichloroethene	23.4	5.0	20	0	117	65-135	0			
1,2-Dichloroethane	19.85	5.0	20	0	99.2	70-135	0			
1,2-Dichloropropane	19.91	5.0	20	0	99.6	70-120	0			
2-Butanone	14.8	10	20	0	74	30-160	0			
2-Hexanone	14.49	5.0	20	0	72.4	45-145	0			
4-Methyl-2-pentanone	19.71	5.0	20	0	98.6	74-173	0			
Acetone	15.49	10	20	0	77.4	20-160	0			
Benzene	21.64	5.0	20	0	108	75-125	0			
Bromodichloromethane	19.34	5.0	20	0	96.7	70-130	0			
Bromoform	14.98	5.0	20	0	74.9	55-135	0			
Bromomethane	19.13	10	20	0	95.6	30-160	0			
Carbon disulfide	21.39	5.0	20	0	107	45-160	0			
Carbon tetrachloride	21.07	5.0	20	0	105	65-135	0			
Chlorobenzene	21.18	5.0	20	0	106	75-125	0			
Chloroethane	21.21	5.0	20	0	106	40-155	0			
Chloroform	20.14	5.0	20	0	101	70-125	0			
Chloromethane	19.05	10	20	0	95.2	50-130	0			
cis-1,2-Dichloroethene	22.03	5.0	20	0	110	65-125	0			
cis-1,3-Dichloropropene	18.57	5.0	20	0	92.8	70-125	0			
Dibromochloromethane	16.06	5.0	20	0	80.3	65-135	0			
Ethylbenzene	21.81	5.0	20	0	109	75-125	0			
Methyl tert-butyl ether	16.64	5.0	20	0	83.2	75-125	0			
Methylene chloride	21.02	5.0	20	0	105	55-140	0			
Styrene	21.56	5.0	20	0	108	74-134	0			
Tetrachloroethene	24.42	5.0	20	0	122	81-171	0			
Toluene	22.02	5.0	20	0	110	70-125	0			
trans-1,2-Dichloroethene	22.23	5.0	20	0	111	65-135	0			
trans-1,3-Dichloropropene	18.08	5.0	20	0	90.4	65-125	0			
Trichloroethene	20.64	5.0	20	0	103	75-125	0			
Vinyl chloride	19.28	5.0	20	0	96.4	60-125	0			
Xylenes, Total	65.32	5.0	60	0	109	75-125	0			
Surr: 1,2-Dichloroethane-d4	*19*	0	*20*	0	*95*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*21.02*	0	*20*	0	*105*	*75-120*	0			
Surr: Dibromofluoromethane	*19.63*	0	*20*	0	*98.2*	*85-115*	0			
Surr: Toluene-d8	*20.84*	0	*20*	0	*104*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210653** Instrument ID **VMS8** Method: **SW8260B**

MS Sample ID: **17041346-04A MS** Units: **µg/Kg** Analysis Date: **4/27/2017 02:38 PM**

Client ID: Run ID: **VMS8_170427A** SeqNo: **4401472** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	17.61	5.0	20	0	88	70-135	0			
1,1,2,2-Tetrachloroethane	13.56	5.0	20	0	67.8	55-130	0			
1,1,2-Trichloroethane	14.31	5.0	20	0	71.6	60-125	0			
1,1-Dichloroethane	18.51	5.0	20	0	92.6	75-125	0			
1,1-Dichloroethene	20.33	5.0	20	0	102	65-135	0			
1,2-Dichloroethane	16.17	5.0	20	0	80.8	70-135	0			
1,2-Dichloropropane	15.85	5.0	20	0	79.2	70-120	0			
2-Butanone	18.33	10	20	0	91.6	30-160	0			
2-Hexanone	14.01	5.0	20	0	70	45-145	0			
4-Methyl-2-pentanone	14.5	5.0	20	0	72.5	74-173	0			S
Acetone	23.84	10	20	9.344	72.5	20-160	0			
Benzene	16.9	5.0	20	0	84.5	75-125	0			
Bromodichloromethane	15.49	5.0	20	0	77.4	70-130	0			
Bromoform	10.75	5.0	20	0	53.8	55-135	0			S
Bromomethane	17.01	10	20	0	85	30-160	0			
Carbon disulfide	17.77	5.0	20	0	88.8	45-160	0			
Carbon tetrachloride	17.19	5.0	20	0	86	65-135	0			
Chlorobenzene	14.65	5.0	20	0	73.2	75-125	0			S
Chloroethane	18.61	5.0	20	0	93	40-155	0			
Chloroform	17.14	5.0	20	0	85.7	70-125	0			
Chloromethane	18.78	10	20	0	93.9	50-130	0			
cis-1,2-Dichloroethene	17.63	5.0	20	0	88.2	65-125	0			
cis-1,3-Dichloropropene	15.01	5.0	20	0	75	70-125	0			
Dibromochloromethane	11.72	5.0	20	0	58.6	65-135	0			S
Ethylbenzene	15.44	5.0	20	0	77.2	75-125	0			
Methyl tert-butyl ether	14.06	5.0	20	0	70.3	75-125	0			S
Methylene chloride	17.7	5.0	20	0	88.5	55-140	0			
Styrene	14.58	5.0	20	0	72.9	74-134	0			S
Tetrachloroethene	18.84	5.0	20	0	94.2	81-171	0			
Toluene	15.75	5.0	20	0	78.8	70-125	0			
trans-1,2-Dichloroethene	18.22	5.0	20	0	91.1	65-135	0			
trans-1,3-Dichloropropene	13.01	5.0	20	0	65	65-125	0			
Trichloroethene	16.48	5.0	20	0	82.4	75-125	0			
Vinyl chloride	18.63	5.0	20	0	93.2	60-125	0			
Xylenes, Total	45.55	5.0	60	0	75.9	75-125	0			
Surr: 1,2-Dichloroethane-d4	*21.48*	0	*20*	0	*107*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*20.22*	0	*20*	0	*101*	*75-120*	0			
Surr: Dibromofluoromethane	*21.53*	0	*20*	0	*108*	*85-115*	0			
Surr: Toluene-d8	*19.95*	0	*20*	0	*99.8*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210653** Instrument ID **VMS8** Method: **SW8260B**

MSD Sample ID: **17041346-04A MSD** Units: **µg/Kg** Analysis Date: **4/27/2017 02:54 PM**

Client ID: Run ID: **VMS8_170427A** SeqNo: **4401473** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.6	5.0	20	0	103	70-135	17.61	15.7	30	
1,1,2,2-Tetrachloroethane	17.36	5.0	20	0	86.8	55-130	13.56	24.6	30	
1,1,2-Trichloroethane	17.86	5.0	20	0	89.3	60-125	14.31	22.1	30	
1,1-Dichloroethane	20.4	5.0	20	0	102	75-125	18.51	9.71	30	
1,1-Dichloroethene	21.75	5.0	20	0	109	65-135	20.33	6.75	30	
1,2-Dichloroethane	19.25	5.0	20	0	96.2	70-135	16.17	17.4	30	
1,2-Dichloropropane	18.54	5.0	20	0	92.7	70-120	15.85	15.6	30	
2-Butanone	18.31	10	20	0	91.6	30-160	18.33	0.109	30	
2-Hexanone	17.33	5.0	20	0	86.6	45-145	14.01	21.2	30	
4-Methyl-2-pentanone	20.78	5.0	20	0	104	74-173	14.5	35.6	30	R
Acetone	23.09	10	20	9.344	68.7	20-160	23.84	3.2	30	
Benzene	19.35	5.0	20	0	96.8	75-125	16.9	13.5	30	
Bromodichloromethane	18.06	5.0	20	0	90.3	70-130	15.49	15.3	30	
Bromoform	13.69	5.0	20	0	68.4	55-135	10.75	24.1	30	
Bromomethane	17.42	10	20	0	87.1	30-160	17.01	2.38	30	
Carbon disulfide	18.94	5.0	20	0	94.7	45-160	17.77	6.37	30	
Carbon tetrachloride	18.51	5.0	20	0	92.6	65-135	17.19	7.39	30	
Chlorobenzene	17.84	5.0	20	0	89.2	75-125	14.65	19.6	30	
Chloroethane	20.73	5.0	20	0	104	40-155	18.61	10.8	30	
Chloroform	19.07	5.0	20	0	95.4	70-125	17.14	10.7	30	
Chloromethane	19.35	10	20	0	96.8	50-130	18.78	2.99	30	
cis-1,2-Dichloroethene	19.52	5.0	20	0	97.6	65-125	17.63	10.2	30	
cis-1,3-Dichloropropene	16.94	5.0	20	0	84.7	70-125	15.01	12.1	30	
Dibromochloromethane	14.37	5.0	20	0	71.8	65-135	11.72	20.3	30	
Ethylbenzene	18.74	5.0	20	0	93.7	75-125	15.44	19.3	30	
Methyl tert-butyl ether	16.95	5.0	20	0	84.8	75-125	14.06	18.6	30	
Methylene chloride	20.01	5.0	20	0	100	55-140	17.7	12.3	30	
Styrene	17.84	5.0	20	0	89.2	74-134	14.58	20.1	30	
Tetrachloroethene	25	5.0	20	0	125	81-171	18.84	28.1	30	
Toluene	19.39	5.0	20	0	97	70-125	15.75	20.7	30	
trans-1,2-Dichloroethene	20.26	5.0	20	0	101	65-135	18.22	10.6	30	
trans-1,3-Dichloropropene	16.04	5.0	20	0	80.2	65-125	13.01	20.9	30	
Trichloroethene	19.89	5.0	20	0	99.4	75-125	16.48	18.8	30	
Vinyl chloride	20.17	5.0	20	0	101	60-125	18.63	7.94	30	
Xylenes, Total	55.48	5.0	60	0	92.5	75-125	45.55	19.7	30	
Surr: 1,2-Dichloroethane-d4	*21.5*	0	*20*	0	*108*	*70-120*	21.48	*0.0931*	*30*	
Surr: 4-Bromofluorobenzene	*19.89*	0	*20*	0	*99.4*	*75-120*	20.22	*1.65*	*30*	
Surr: Dibromofluoromethane	*20.86*	0	*20*	0	*104*	*85-115*	21.53	*3.16*	*30*	
Surr: Toluene-d8	*19.71*	0	*20*	0	*98.6*	*85-120*	19.95	*1.21*	*30*	

The following samples were analyzed in this batch: 17041370-03A 17041370-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210658** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R210658** Units: **% of sample** Analysis Date: **4/26/2017 06:05 PM**

Client ID: Run ID: **MOIST_170426C** SeqNo: **4399536** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.050								

LCS Sample ID: **LCS-R210658** Units: **% of sample** Analysis Date: **4/26/2017 06:05 PM**

Client ID: Run ID: **MOIST_170426C** SeqNo: **4399535** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **17041370-03B DUP** Units: **% of sample** Analysis Date: **4/26/2017 06:05 PM**

Client ID: **TDSB05 (8-10)-042417** Run ID: **MOIST_170426C** SeqNo: **4399521** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	16.72	0.050	0	0	0		15.96	4.65	5	

DUP Sample ID: **17041424-42A DUP** Units: **% of sample** Analysis Date: **4/26/2017 06:05 PM**

Client ID: Run ID: **MOIST_170426C** SeqNo: **4399534** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	40.21	0.050	0	0	0		39.05	2.93	5	

The following samples were analyzed in this batch:

17041370-01B	17041370-03B	17041370-04B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 17041370
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R210747** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R210747** Units: **% of sample** Analysis Date: **4/27/2017 12:43 PM**

Client ID: Run ID: **MOIST_170427B** SeqNo: **4401253** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.04	0.050								J

LCS Sample ID: **LCS-R210747** Units: **% of sample** Analysis Date: **4/27/2017 12:43 PM**

Client ID: Run ID: **MOIST_170427B** SeqNo: **4401252** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **17041383-01A DUP** Units: **% of sample** Analysis Date: **4/27/2017 12:43 PM**

Client ID: Run ID: **MOIST_170427B** SeqNo: **4401235** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.14	0.050	0	0	0		19.52	1.97	5	

DUP Sample ID: **17041476-01B DUP** Units: **% of sample** Analysis Date: **4/27/2017 12:43 PM**

Client ID: Run ID: **MOIST_170427B** SeqNo: **4401251** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.57	0.050	0	0	0		11.7	1.12	5	

The following samples were analyzed in this batch:

17041370-05B	17041370-06B	17041370-07B
17041370-08B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511 | Houston, TX +1 281 530 5656 | Spring City, PA +1 610 948 4903 | South Charleston, WV +1 304 356 3168

Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070 | Middletown, PA +1 717 944 5541 | Salt Lake City, UT +1 801 266 7700 | York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of ____

COC ID: 43164

ALS Project Manager: | ALS Work Order #: 17041376

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Former Teledyne Site	A	VOCs
Work Order		Project Number		B	PAHs/PCBs/Pesticides
Company Name	Tetra Tech EM Inc.	Bill To Company	Tetra Tech EM Inc.	C	RCRA Metals
Send Report To	Dave Franc	Invoice Attn		D	Grain Size
Address	1 South Wacker Dr Suite 3700	Address	1 South Wacker Dr Suite 3700	E	Moisture
				F	
City/State/Zip	Chicago, IL 60606	City/State/Zip	Chicago, IL 60606	G	
Phone	(312) 201-7411	Phone	(312) 201-7411	H	
Fax	(312) 938-0118	Fax	(312) 938-0118	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TDSB32(2-4)-042417	4.24.17	945	Soil	7	4	✓	✓	✓		✓						
2	TDSB32(12-14)-042417	↓	1015	↓	↓	1				✓							
3	TDSB05(8-10)-042417		1250			4	✓	✓	✓		✓						
4	TDSB05(8-10)Dup-042417		1255			↓	✓	✓	✓		✓						
5	TDSB19(2-4)-042417		1300				✓	✓	✓		✓						
6	TDSB18(4-5)-042417		1320				✓	✓	✓		✓						
7	TDSB17(2-4)-042417		1340				✓	✓	✓		✓						
8	TDSB20(2-4)-042417		1405				✓	✓	✓		✓						
9	TRIP BLANK	—	—	—	—	2	✓		LAB	PREPARED							
10																	

Sampler(s) Please Print & Sign: Ashley Weimer Ashley Weimer

Shipment Method: FedEx

Turnaround Time in Business Days (BD): ☐ Other ____ ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Ashley Weimer	4.24.17	1700	FED EX
Relinquished by: FED EX	Date: 4/25/17	Time: 1000	Received by (Laboratory):
Logged by (Laboratory): DFS	Date: 4/25/17	Time: 1500	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp
SR2	2.8°

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other ____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Group, USA

Sample Receipt Checklist

Client Name: **TETRATECH-EM-CHI** Date/Time Received: **25-Apr-17 10:00**

Work Order: **17041370** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 25-Apr-17 (Date) Reviewed by: Joseph Ribar (eSignature) 25-Apr-17 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.8/2.8 c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	4/25/2017 3:11:03 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

11-May-2017

Dave Franc
Tetra Tech EM Inc.
1 South Wacker Dr
Suite 3700
Chicago, IL 60606

Re: **Former Teledyne Site** Work Order: **1705183**

Dear Dave,

ALS Environmental received 7 samples on 03-May-2017 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 45.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Joseph Ribar

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager

Certificate No: IL: 200076

ADDRESS 3352 128th Ave Holland, Michigan 49424 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

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ALS Group, USA

Date: 11-May-17

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Work Order: **1705183**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1705183-01	TDMW1-050217	Water		5/2/2017 09:45	5/3/2017 09:00	☐
1705183-02	TDMW5-050217	Water		5/2/2017 10:40	5/3/2017 09:00	☐
1705183-03	TDMW4-050217	Water		5/2/2017 11:35	5/3/2017 09:00	☐
1705183-04	TDMW3-050217	Water		5/2/2017 12:25	5/3/2017 09:00	☐
1705183-05	TDMW2-050217	Water		5/2/2017 13:10	5/3/2017 09:00	☐
1705183-06	Trip Blank CLR #1	Water		5/2/2017	5/3/2017 09:00	☐
1705183-07	Trip Blank CLR #2	Water		5/2/2017	5/3/2017 09:00	☐

ALS Group, USA

Date: 11-May-17

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Work Order: 1705183

Case Narrative

Samples for the above noted Work Order were received on 05/03/2017. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch R211100A, Method 8260, Sample 1705183-05C MS: The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Ethylbenzene

Batch R211100A, Method 8260, Sample 1705183-05C MSD: The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Ethylbenzene

No other deviations or anomalies were noted.

Extractable Organics:
Batch 101516A, Method 8081, Sample 1705183-01A: One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

No other deviations or anomalies were noted.

Metals:
No other deviations or anomalies were noted.

Wet Chemistry:
No other deviations or anomalies were noted.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW1-050217
Collection Date: 5/2/2017 09:45 AM

Work Order: 1705183
Lab ID: 1705183-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3511 / 5/5/17		Analyst: **EB**
Aroclor 1016	U		0.18	0.20	µg/L	1	5/8/2017 00:46
Aroclor 1221	U		0.18	0.20	µg/L	1	5/8/2017 00:46
Aroclor 1232	U		0.18	0.20	µg/L	1	5/8/2017 00:46
Aroclor 1242	U		0.18	0.20	µg/L	1	5/8/2017 00:46
Aroclor 1248	U		0.18	0.20	µg/L	1	5/8/2017 00:46
Aroclor 1254	U		0.097	0.20	µg/L	1	5/8/2017 00:46
Aroclor 1260	U		0.097	0.20	µg/L	1	5/8/2017 00:46
Aroclor 1262	U		0.097	0.20	µg/L	1	5/8/2017 00:46
Aroclor 1268	U		0.097	0.20	µg/L	1	5/8/2017 00:46
Surr: Decachlorobiphenyl	*80.3*			*30-150*	*%REC*	1	5/8/2017 00:46
Surr: Tetrachloro-m-xylene	*72.2*			*50-150*	*%REC*	1	5/8/2017 00:46
PESTICIDES		Method:	**SW8081A**				Analyst: **JF**
4,4´-DDD	U		0.0029	0.020	µg/L	1	5/8/2017 16:10
4,4´-DDE	U		0.0024	0.020	µg/L	1	5/8/2017 16:10
4,4´-DDT	U		0.0027	0.020	µg/L	1	5/8/2017 16:10
Aldrin	U		0.0029	0.010	µg/L	1	5/8/2017 16:10
alpha-BHC	U		0.0025	0.010	µg/L	1	5/8/2017 16:10
alpha-Chlordane	U		0.0026	0.020	µg/L	1	5/8/2017 16:10
beta-BHC	U		0.0023	0.010	µg/L	1	5/8/2017 16:10
Chlordane, Technical	U		0.034	0.50	µg/L	1	5/8/2017 16:10
delta-BHC	U		0.0019	0.010	µg/L	1	5/8/2017 16:10
Dieldrin	U		0.0022	0.020	µg/L	1	5/8/2017 16:10
Endosulfan I	U		0.0024	0.020	µg/L	1	5/8/2017 16:10
Endosulfan II	U		0.0020	0.020	µg/L	1	5/8/2017 16:10
Endosulfan sulfate	U		0.0018	0.020	µg/L	1	5/8/2017 16:10
Endrin	U		0.0027	0.020	µg/L	1	5/8/2017 16:10
Endrin aldehyde	U		0.0022	0.020	µg/L	1	5/8/2017 16:10
Endrin ketone	U		0.0017	0.020	µg/L	1	5/8/2017 16:10
gamma-BHC (Lindane)	U		0.0024	0.010	µg/L	1	5/8/2017 16:10
gamma-Chlordane	U		0.0025	0.020	µg/L	1	5/8/2017 16:10
Heptachlor	U		0.0030	0.010	µg/L	1	5/8/2017 16:10
Heptachlor epoxide	U		0.0025	0.010	µg/L	1	5/8/2017 16:10
Methoxychlor	U		0.0039	0.040	µg/L	1	5/8/2017 16:10
Toxaphene	U		0.11	2.0	µg/L	1	5/8/2017 16:10
Surr: Decachlorobiphenyl	*47.4*	S		*50-150*	*%REC*	1	5/8/2017 16:10
Surr: Tetrachloro-m-xylene	*49.0*	S		*50-150*	*%REC*	1	5/8/2017 16:10
MERCURY BY CVAA		Method:	**SW7470A**		Prep: SW7470 / 5/4/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW1-050217
Collection Date: 5/2/2017 09:45 AM

Work Order: 1705183
Lab ID: 1705183-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	U		0.000019	0.00020	mg/L	1	5/4/2017 16:01
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3005A / 5/9/17		Analyst: **RH**
Arsenic	**0.0014**	J	**0.00087**	**0.0050**	**mg/L**	1	5/10/2017 08:41
Barium	**0.074**		**0.0022**	**0.0050**	**mg/L**	1	5/10/2017 08:41
Cadmium	**0.000091**	J	**0.000050**	**0.0020**	**mg/L**	1	5/10/2017 08:41
Chromium	U		0.00065	0.0050	mg/L	1	5/10/2017 08:41
Lead	U		0.00033	0.0050	mg/L	1	5/10/2017 08:41
Selenium	**0.0011**	J	**0.00090**	**0.0050**	**mg/L**	1	5/10/2017 08:41
Silver	U		0.000050	0.0050	mg/L	1	5/10/2017 08:41
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3510 / 5/5/17		Analyst: **RS**
2-Chloronaphthalene	U		0.075	0.10	µg/L	1	5/5/2017 18:38
2-Methylnaphthalene	U		0.065	0.10	µg/L	1	5/5/2017 18:38
Acenaphthene	U		0.081	0.10	µg/L	1	5/5/2017 18:38
Acenaphthylene	U		0.075	0.10	µg/L	1	5/5/2017 18:38
Anthracene	U		0.028	0.10	µg/L	1	5/5/2017 18:38
Benzo(a)anthracene	**0.35**		**0.022**	**0.10**	**µg/L**	1	5/5/2017 18:38
Benzo(a)pyrene	**0.31**		**0.044**	**0.10**	**µg/L**	1	5/5/2017 18:38
Benzo(b)fluoranthene	**0.54**		**0.051**	**0.10**	**µg/L**	1	5/5/2017 18:38
Benzo(g,h,i)perylene	**0.24**		**0.030**	**0.10**	**µg/L**	1	5/5/2017 18:38
Benzo(k)fluoranthene	**0.18**		**0.048**	**0.10**	**µg/L**	1	5/5/2017 18:38
Chrysene	**0.11**		**0.048**	**0.10**	**µg/L**	1	5/5/2017 18:38
Dibenzo(a,h)anthracene	U		0.030	0.10	µg/L	1	5/5/2017 18:38
Fluoranthene	**1.5**		**0.038**	**0.10**	**µg/L**	1	5/5/2017 18:38
Fluorene	U		0.051	0.10	µg/L	1	5/5/2017 18:38
Indeno(1,2,3-cd)pyrene	**0.27**		**0.067**	**0.10**	**µg/L**	1	5/5/2017 18:38
Naphthalene	U		0.067	0.10	µg/L	1	5/5/2017 18:38
Phenanthrene	**0.83**		**0.030**	**0.10**	**µg/L**	1	5/5/2017 18:38
Pyrene	**1.1**		**0.036**	**0.10**	**µg/L**	1	5/5/2017 18:38
Surr: 2-Fluorobiphenyl	*58.8*			*32-100*	*%REC*	1	5/5/2017 18:38
Surr: 4-Terphenyl-d14	*69.2*			*23-112*	*%REC*	1	5/5/2017 18:38
Surr: Nitrobenzene-d5	*47.2*			*31-93*	*%REC*	1	5/5/2017 18:38
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **AK**
1,1,1-Trichloroethane	U		0.36	1.0	µg/L	1	5/4/2017 02:35
1,1,2,2-Tetrachloroethane	U		0.19	1.0	µg/L	1	5/4/2017 02:35
1,1,2-Trichloroethane	U		0.40	1.0	µg/L	1	5/4/2017 02:35
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	5/4/2017 02:35
1,1-Dichloroethene	U		0.28	1.0	µg/L	1	5/4/2017 02:35
1,2-Dichloroethane	U		0.17	1.0	µg/L	1	5/4/2017 02:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW1-050217
Collection Date: 5/2/2017 09:45 AM

Work Order: 1705183
Lab ID: 1705183-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		0.25	1.0	µg/L	1	5/4/2017 02:35
2-Butanone	U		0.58	5.0	µg/L	1	5/4/2017 02:35
2-Hexanone	U		0.13	5.0	µg/L	1	5/4/2017 02:35
4-Methyl-2-pentanone	U		0.11	1.0	µg/L	1	5/4/2017 02:35
Acetone	**2.0**	J	**0.92**	**10**	**µg/L**	1	5/4/2017 02:35
Benzene	U		0.30	1.0	µg/L	1	5/4/2017 02:35
Bromodichloromethane	U		0.23	1.0	µg/L	1	5/4/2017 02:35
Bromoform	U		0.77	1.0	µg/L	1	5/4/2017 02:35
Bromomethane	U		0.38	1.0	µg/L	1	5/4/2017 02:35
Carbon disulfide	U		0.23	1.0	µg/L	1	5/4/2017 02:35
Carbon tetrachloride	U		0.31	1.0	µg/L	1	5/4/2017 02:35
Chlorobenzene	U		0.27	1.0	µg/L	1	5/4/2017 02:35
Chloroethane	U		0.29	1.0	µg/L	1	5/4/2017 02:35
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	5/4/2017 02:35
cis-1,3-Dichloropropene	U		0.39	1.0	µg/L	1	5/4/2017 02:35
Ethylbenzene	U		0.40	1.0	µg/L	1	5/4/2017 02:35
Methyl tert-butyl ether	U		0.12	1.0	µg/L	1	5/4/2017 02:35
Methylene chloride	U		0.56	5.0	µg/L	1	5/4/2017 02:35
Styrene	U		0.24	1.0	µg/L	1	5/4/2017 02:35
Tetrachloroethene	U		0.27	1.0	µg/L	1	5/4/2017 02:35
Toluene	U		0.37	1.0	µg/L	1	5/4/2017 02:35
trans-1,2-Dichloroethene	U		0.28	1.0	µg/L	1	5/4/2017 02:35
trans-1,3-Dichloropropene	U		0.82	1.0	µg/L	1	5/4/2017 02:35
Trichloroethene	U		0.30	1.0	µg/L	1	5/4/2017 02:35
Vinyl chloride	U		0.20	1.0	µg/L	1	5/4/2017 02:35
Xylenes, Total	U		1.3	3.0	µg/L	1	5/4/2017 02:35
Surr: 1,2-Dichloroethane-d4	*104*			*75-120*	*%REC*	1	5/4/2017 02:35
Surr: 4-Bromofluorobenzene	*90.8*			*80-110*	*%REC*	1	5/4/2017 02:35
Surr: Dibromofluoromethane	*104*			*85-115*	*%REC*	1	5/4/2017 02:35
Surr: Toluene-d8	*96.0*			*85-110*	*%REC*	1	5/4/2017 02:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW5-050217
Collection Date: 5/2/2017 10:40 AM

Work Order: 1705183
Lab ID: 1705183-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3511 / 5/5/17		Analyst: **EB**
Aroclor 1016	U		0.18	0.20	µg/L	1	5/8/2017 01:00
Aroclor 1221	U		0.18	0.20	µg/L	1	5/8/2017 01:00
Aroclor 1232	U		0.18	0.20	µg/L	1	5/8/2017 01:00
Aroclor 1242	U		0.18	0.20	µg/L	1	5/8/2017 01:00
Aroclor 1248	U		0.18	0.20	µg/L	1	5/8/2017 01:00
Aroclor 1254	U		0.097	0.20	µg/L	1	5/8/2017 01:00
Aroclor 1260	U		0.097	0.20	µg/L	1	5/8/2017 01:00
Aroclor 1262	U		0.097	0.20	µg/L	1	5/8/2017 01:00
Aroclor 1268	U		0.097	0.20	µg/L	1	5/8/2017 01:00
Surr: Decachlorobiphenyl	*100*			*30-150*	*%REC*	1	5/8/2017 01:00
Surr: Tetrachloro-m-xylene	*93.1*			*50-150*	*%REC*	1	5/8/2017 01:00
PESTICIDES		Method:	**SW8081A**				Analyst: **JF**
4,4´-DDD	U		0.0029	0.020	µg/L	1	5/8/2017 16:24
4,4´-DDE	U		0.0024	0.020	µg/L	1	5/8/2017 16:24
4,4´-DDT	U		0.0027	0.020	µg/L	1	5/8/2017 16:24
Aldrin	U		0.0029	0.010	µg/L	1	5/8/2017 16:24
alpha-BHC	U		0.0025	0.010	µg/L	1	5/8/2017 16:24
alpha-Chlordane	U		0.0026	0.020	µg/L	1	5/8/2017 16:24
beta-BHC	U		0.0023	0.010	µg/L	1	5/8/2017 16:24
Chlordane, Technical	U		0.034	0.50	µg/L	1	5/8/2017 16:24
delta-BHC	U		0.0019	0.010	µg/L	1	5/8/2017 16:24
Dieldrin	U		0.0022	0.020	µg/L	1	5/8/2017 16:24
Endosulfan I	U		0.0024	0.020	µg/L	1	5/8/2017 16:24
Endosulfan II	U		0.0020	0.020	µg/L	1	5/8/2017 16:24
Endosulfan sulfate	U		0.0018	0.020	µg/L	1	5/8/2017 16:24
Endrin	U		0.0027	0.020	µg/L	1	5/8/2017 16:24
Endrin aldehyde	U		0.0022	0.020	µg/L	1	5/8/2017 16:24
Endrin ketone	U		0.0017	0.020	µg/L	1	5/8/2017 16:24
gamma-BHC (Lindane)	U		0.0024	0.010	µg/L	1	5/8/2017 16:24
gamma-Chlordane	U		0.0025	0.020	µg/L	1	5/8/2017 16:24
Heptachlor	U		0.0030	0.010	µg/L	1	5/8/2017 16:24
Heptachlor epoxide	U		0.0025	0.010	µg/L	1	5/8/2017 16:24
Methoxychlor	U		0.0039	0.040	µg/L	1	5/8/2017 16:24
Toxaphene	U		0.11	2.0	µg/L	1	5/8/2017 16:24
Surr: Decachlorobiphenyl	*55.2*			*50-150*	*%REC*	1	5/8/2017 16:24
Surr: Tetrachloro-m-xylene	*61.3*			*50-150*	*%REC*	1	5/8/2017 16:24
MERCURY BY CVAA		Method:	**SW7470A**		Prep: SW7470 / 5/4/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW5-050217
Collection Date: 5/2/2017 10:40 AM

Work Order: 1705183
Lab ID: 1705183-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	U		0.000019	0.00020	mg/L	1	5/4/2017 16:04
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3005A / 5/9/17		Analyst: **RH**
Arsenic	**0.0015**	J	**0.00087**	**0.0050**	**mg/L**	1	5/10/2017 10:15
Barium	**0.062**		**0.0022**	**0.0050**	**mg/L**	1	5/10/2017 10:15
Cadmium	U		0.000050	0.0020	mg/L	1	5/10/2017 10:15
Chromium	U		0.00065	0.0050	mg/L	1	5/10/2017 10:15
Lead	U		0.00033	0.0050	mg/L	1	5/10/2017 10:15
Selenium	U		0.00090	0.0050	mg/L	1	5/10/2017 10:15
Silver	U		0.000050	0.0050	mg/L	1	5/10/2017 10:15
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3510 / 5/5/17		Analyst: **RS**
2-Chloronaphthalene	U		0.075	0.10	µg/L	1	5/5/2017 19:01
2-Methylnaphthalene	**1.9**		**0.065**	**0.10**	**µg/L**	1	5/5/2017 19:01
Acenaphthene	U		0.081	0.10	µg/L	1	5/5/2017 19:01
Acenaphthylene	U		0.075	0.10	µg/L	1	5/5/2017 19:01
Anthracene	U		0.028	0.10	µg/L	1	5/5/2017 19:01
Benzo(a)anthracene	**0.19**		**0.022**	**0.10**	**µg/L**	1	5/5/2017 19:01
Benzo(a)pyrene	**0.15**		**0.044**	**0.10**	**µg/L**	1	5/5/2017 19:01
Benzo(b)fluoranthene	**0.22**		**0.051**	**0.10**	**µg/L**	1	5/5/2017 19:01
Benzo(g,h,i)perylene	**0.080**	J	**0.030**	**0.10**	**µg/L**	1	5/5/2017 19:01
Benzo(k)fluoranthene	**0.090**	J	**0.048**	**0.10**	**µg/L**	1	5/5/2017 19:01
Chrysene	U		0.048	0.10	µg/L	1	5/5/2017 19:01
Dibenzo(a,h)anthracene	U		0.030	0.10	µg/L	1	5/5/2017 19:01
Fluoranthene	**0.73**		**0.038**	**0.10**	**µg/L**	1	5/5/2017 19:01
Fluorene	U		0.051	0.10	µg/L	1	5/5/2017 19:01
Indeno(1,2,3-cd)pyrene	**0.11**		**0.067**	**0.10**	**µg/L**	1	5/5/2017 19:01
Naphthalene	**4.7**		**0.067**	**0.10**	**µg/L**	1	5/5/2017 19:01
Phenanthrene	**0.22**		**0.030**	**0.10**	**µg/L**	1	5/5/2017 19:01
Pyrene	**0.34**		**0.036**	**0.10**	**µg/L**	1	5/5/2017 19:01
Surr: 2-Fluorobiphenyl	*48.8*			*32-100*	*%REC*	1	5/5/2017 19:01
Surr: 4-Terphenyl-d14	*63.0*			*23-112*	*%REC*	1	5/5/2017 19:01
Surr: Nitrobenzene-d5	*44.0*			*31-93*	*%REC*	1	5/5/2017 19:01
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **WH**
1,1,1-Trichloroethane	U		0.36	1.0	µg/L	1	5/6/2017 03:31
1,1,2,2-Tetrachloroethane	U		0.19	1.0	µg/L	1	5/6/2017 03:31
1,1,2-Trichloroethane	U		0.40	1.0	µg/L	1	5/6/2017 03:31
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	5/6/2017 03:31
1,1-Dichloroethene	U		0.28	1.0	µg/L	1	5/6/2017 03:31
1,2-Dichloroethane	U		0.17	1.0	µg/L	1	5/6/2017 03:31

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW5-050217
Collection Date: 5/2/2017 10:40 AM

Work Order: 1705183
Lab ID: 1705183-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		0.25	1.0	µg/L	1	5/6/2017 03:31
2-Butanone	U		0.58	5.0	µg/L	1	5/6/2017 03:31
2-Hexanone	U		0.13	5.0	µg/L	1	5/6/2017 03:31
4-Methyl-2-pentanone	U		0.11	1.0	µg/L	1	5/6/2017 03:31
Acetone	U		0.92	10	µg/L	1	5/6/2017 03:31
Benzene	U		0.30	1.0	µg/L	1	5/6/2017 03:31
Bromodichloromethane	U		0.23	1.0	µg/L	1	5/6/2017 03:31
Bromoform	U		0.77	1.0	µg/L	1	5/6/2017 03:31
Bromomethane	U		0.38	1.0	µg/L	1	5/6/2017 03:31
Carbon disulfide	U		0.23	1.0	µg/L	1	5/6/2017 03:31
Carbon tetrachloride	U		0.31	1.0	µg/L	1	5/6/2017 03:31
Chlorobenzene	U		0.27	1.0	µg/L	1	5/6/2017 03:31
Chloroethane	U		0.29	1.0	µg/L	1	5/6/2017 03:31
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	5/6/2017 03:31
cis-1,3-Dichloropropene	U		0.39	1.0	µg/L	1	5/6/2017 03:31
Ethylbenzene	**21**		**0.40**	**1.0**	**µg/L**	1	5/6/2017 03:31
Methyl tert-butyl ether	U		0.12	1.0	µg/L	1	5/6/2017 03:31
Methylene chloride	U		0.56	5.0	µg/L	1	5/6/2017 03:31
Styrene	U		0.24	1.0	µg/L	1	5/6/2017 03:31
Tetrachloroethene	U		0.27	1.0	µg/L	1	5/6/2017 03:31
Toluene	U		0.37	1.0	µg/L	1	5/6/2017 03:31
trans-1,2-Dichloroethene	U		0.28	1.0	µg/L	1	5/6/2017 03:31
trans-1,3-Dichloropropene	U		0.82	1.0	µg/L	1	5/6/2017 03:31
Trichloroethene	U		0.30	1.0	µg/L	1	5/6/2017 03:31
Vinyl chloride	U		0.20	1.0	µg/L	1	5/6/2017 03:31
Xylenes, Total	**57**		**1.3**	**3.0**	**µg/L**	1	5/6/2017 03:31
Surr: 1,2-Dichloroethane-d4	*97.2*			*75-120*	*%REC*	1	5/6/2017 03:31
Surr: 4-Bromofluorobenzene	*97.8*			*80-110*	*%REC*	1	5/6/2017 03:31
Surr: Dibromofluoromethane	*97.4*			*85-115*	*%REC*	1	5/6/2017 03:31
Surr: Toluene-d8	*104*			*85-110*	*%REC*	1	5/6/2017 03:31

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW4-050217
Collection Date: 5/2/2017 11:35 AM

Work Order: 1705183
Lab ID: 1705183-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3511 / 5/5/17		Analyst: **EB**
Aroclor 1016	U		0.18	0.20	µg/L	1	5/8/2017 01:15
Aroclor 1221	U		0.18	0.20	µg/L	1	5/8/2017 01:15
Aroclor 1232	U		0.18	0.20	µg/L	1	5/8/2017 01:15
Aroclor 1242	U		0.18	0.20	µg/L	1	5/8/2017 01:15
Aroclor 1248	U		0.18	0.20	µg/L	1	5/8/2017 01:15
Aroclor 1254	U		0.097	0.20	µg/L	1	5/8/2017 01:15
Aroclor 1260	U		0.097	0.20	µg/L	1	5/8/2017 01:15
Aroclor 1262	U		0.097	0.20	µg/L	1	5/8/2017 01:15
Aroclor 1268	U		0.097	0.20	µg/L	1	5/8/2017 01:15
Surr: Decachlorobiphenyl	*106*			*30-150*	*%REC*	1	5/8/2017 01:15
Surr: Tetrachloro-m-xylene	*86.3*			*50-150*	*%REC*	1	5/8/2017 01:15
PESTICIDES		Method:	**SW8081A**				Analyst: **JF**
4,4´-DDD	U		0.0029	0.020	µg/L	1	5/8/2017 16:38
4,4´-DDE	U		0.0024	0.020	µg/L	1	5/8/2017 16:38
4,4´-DDT	U		0.0027	0.020	µg/L	1	5/8/2017 16:38
Aldrin	U		0.0029	0.010	µg/L	1	5/8/2017 16:38
alpha-BHC	U		0.0025	0.010	µg/L	1	5/8/2017 16:38
alpha-Chlordane	U		0.0026	0.020	µg/L	1	5/8/2017 16:38
beta-BHC	U		0.0023	0.010	µg/L	1	5/8/2017 16:38
Chlordane, Technical	U		0.034	0.50	µg/L	1	5/8/2017 16:38
delta-BHC	U		0.0019	0.010	µg/L	1	5/8/2017 16:38
Dieldrin	U		0.0022	0.020	µg/L	1	5/8/2017 16:38
Endosulfan I	U		0.0024	0.020	µg/L	1	5/8/2017 16:38
Endosulfan II	U		0.0020	0.020	µg/L	1	5/8/2017 16:38
Endosulfan sulfate	U		0.0018	0.020	µg/L	1	5/8/2017 16:38
Endrin	U		0.0027	0.020	µg/L	1	5/8/2017 16:38
Endrin aldehyde	U		0.0022	0.020	µg/L	1	5/8/2017 16:38
Endrin ketone	U		0.0017	0.020	µg/L	1	5/8/2017 16:38
gamma-BHC (Lindane)	U		0.0024	0.010	µg/L	1	5/8/2017 16:38
gamma-Chlordane	U		0.0025	0.020	µg/L	1	5/8/2017 16:38
Heptachlor	U		0.0030	0.010	µg/L	1	5/8/2017 16:38
Heptachlor epoxide	U		0.0025	0.010	µg/L	1	5/8/2017 16:38
Methoxychlor	U		0.0039	0.040	µg/L	1	5/8/2017 16:38
Toxaphene	U		0.11	2.0	µg/L	1	5/8/2017 16:38
Surr: Decachlorobiphenyl	*58.9*			*50-150*	*%REC*	1	5/8/2017 16:38
Surr: Tetrachloro-m-xylene	*52.2*			*50-150*	*%REC*	1	5/8/2017 16:38
MERCURY BY CVAA		Method:	**SW7470A**		Prep: SW7470 / 5/4/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW4-050217
Collection Date: 5/2/2017 11:35 AM

Work Order: 1705183
Lab ID: 1705183-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	U		0.000019	0.00020	mg/L	1	5/4/2017 16:07
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3005A / 5/9/17		Analyst: **RH**
Arsenic	**0.0015**	J	**0.00087**	**0.0050**	**mg/L**	1	5/10/2017 10:21
Barium	**0.13**		**0.0022**	**0.0050**	**mg/L**	1	5/10/2017 10:21
Cadmium	U		0.000050	0.0020	mg/L	1	5/10/2017 10:21
Chromium	U		0.00065	0.0050	mg/L	1	5/10/2017 10:21
Lead	**0.00034**	J	**0.00033**	**0.0050**	**mg/L**	1	5/10/2017 10:21
Selenium	U		0.00090	0.0050	mg/L	1	5/10/2017 10:21
Silver	U		0.000050	0.0050	mg/L	1	5/10/2017 10:21
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3510 / 5/5/17		Analyst: **RS**
2-Chloronaphthalene	U		0.079	0.11	µg/L	1	5/6/2017 14:54
2-Methylnaphthalene	**2.5**		**0.069**	**0.11**	**µg/L**	1	5/6/2017 14:54
Acenaphthene	**0.22**		**0.086**	**0.11**	**µg/L**	1	5/6/2017 14:54
Acenaphthylene	U		0.079	0.11	µg/L	1	5/6/2017 14:54
Anthracene	U		0.030	0.11	µg/L	1	5/6/2017 14:54
Benzo(a)anthracene	**0.28**		**0.023**	**0.11**	**µg/L**	1	5/6/2017 14:54
Benzo(a)pyrene	**0.20**		**0.047**	**0.11**	**µg/L**	1	5/6/2017 14:54
Benzo(b)fluoranthene	**0.29**		**0.054**	**0.11**	**µg/L**	1	5/6/2017 14:54
Benzo(g,h,i)perylene	**0.11**	J	**0.032**	**0.11**	**µg/L**	1	5/6/2017 14:54
Benzo(k)fluoranthene	**0.12**		**0.051**	**0.11**	**µg/L**	1	5/6/2017 14:54
Chrysene	U		0.051	0.11	µg/L	1	5/6/2017 14:54
Dibenzo(a,h)anthracene	U		0.032	0.11	µg/L	1	5/6/2017 14:54
Fluoranthene	**1.1**		**0.040**	**0.11**	**µg/L**	1	5/6/2017 14:54
Fluorene	**0.085**	J	**0.054**	**0.11**	**µg/L**	1	5/6/2017 14:54
Indeno(1,2,3-cd)pyrene	**0.16**		**0.071**	**0.11**	**µg/L**	1	5/6/2017 14:54
Naphthalene	**7.5**		**0.071**	**0.11**	**µg/L**	1	5/6/2017 14:54
Phenanthrene	**0.71**		**0.032**	**0.11**	**µg/L**	1	5/6/2017 14:54
Pyrene	**0.56**		**0.038**	**0.11**	**µg/L**	1	5/6/2017 14:54
Surr: 2-Fluorobiphenyl	*50.4*			*32-100*	*%REC*	1	5/6/2017 14:54
Surr: 4-Terphenyl-d14	*63.6*			*23-112*	*%REC*	1	5/6/2017 14:54
Surr: Nitrobenzene-d5	*45.3*			*31-93*	*%REC*	1	5/6/2017 14:54
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **WH**
1,1,1-Trichloroethane	U		0.36	1.0	µg/L	1	5/6/2017 03:52
1,1,2,2-Tetrachloroethane	U		0.19	1.0	µg/L	1	5/6/2017 03:52
1,1,2-Trichloroethane	U		0.40	1.0	µg/L	1	5/6/2017 03:52
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	5/6/2017 03:52
1,1-Dichloroethene	U		0.28	1.0	µg/L	1	5/6/2017 03:52
1,2-Dichloroethane	U		0.17	1.0	µg/L	1	5/6/2017 03:52

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW4-050217
Collection Date: 5/2/2017 11:35 AM

Work Order: 1705183
Lab ID: 1705183-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		0.25	1.0	µg/L	1	5/6/2017 03:52
2-Butanone	U		0.58	5.0	µg/L	1	5/6/2017 03:52
2-Hexanone	U		0.13	5.0	µg/L	1	5/6/2017 03:52
4-Methyl-2-pentanone	U		0.11	1.0	µg/L	1	5/6/2017 03:52
Acetone	U		0.92	10	µg/L	1	5/6/2017 03:52
Benzene	**7.9**		**0.30**	**1.0**	**µg/L**	1	5/6/2017 03:52
Bromodichloromethane	U		0.23	1.0	µg/L	1	5/6/2017 03:52
Bromoform	U		0.77	1.0	µg/L	1	5/6/2017 03:52
Bromomethane	U		0.38	1.0	µg/L	1	5/6/2017 03:52
Carbon disulfide	U		0.23	1.0	µg/L	1	5/6/2017 03:52
Carbon tetrachloride	U		0.31	1.0	µg/L	1	5/6/2017 03:52
Chlorobenzene	U		0.27	1.0	µg/L	1	5/6/2017 03:52
Chloroethane	U		0.29	1.0	µg/L	1	5/6/2017 03:52
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	5/6/2017 03:52
cis-1,3-Dichloropropene	U		0.39	1.0	µg/L	1	5/6/2017 03:52
Ethylbenzene	**88**		**0.40**	**1.0**	**µg/L**	1	5/6/2017 03:52
Methyl tert-butyl ether	U		0.12	1.0	µg/L	1	5/6/2017 03:52
Methylene chloride	U		0.56	5.0	µg/L	1	5/6/2017 03:52
Styrene	U		0.24	1.0	µg/L	1	5/6/2017 03:52
Tetrachloroethene	U		0.27	1.0	µg/L	1	5/6/2017 03:52
Toluene	**0.86**	J	**0.37**	**1.0**	**µg/L**	1	5/6/2017 03:52
trans-1,2-Dichloroethene	U		0.28	1.0	µg/L	1	5/6/2017 03:52
trans-1,3-Dichloropropene	U		0.82	1.0	µg/L	1	5/6/2017 03:52
Trichloroethene	U		0.30	1.0	µg/L	1	5/6/2017 03:52
Vinyl chloride	U		0.20	1.0	µg/L	1	5/6/2017 03:52
Xylenes, Total	**84**		**1.3**	**3.0**	**µg/L**	1	5/6/2017 03:52
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	1	5/6/2017 03:52
Surr: 4-Bromofluorobenzene	*96.3*			*80-110*	*%REC*	1	5/6/2017 03:52
Surr: Dibromofluoromethane	*95.8*			*85-115*	*%REC*	1	5/6/2017 03:52
Surr: Toluene-d8	*105*			*85-110*	*%REC*	1	5/6/2017 03:52

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW3-050217
Collection Date: 5/2/2017 12:25 PM

Work Order: 1705183
Lab ID: 1705183-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3511 / 5/5/17		Analyst: **EB**
Aroclor 1016	U		0.18	0.20	µg/L	1	5/8/2017 01:29
Aroclor 1221	U		0.18	0.20	µg/L	1	5/8/2017 01:29
Aroclor 1232	U		0.18	0.20	µg/L	1	5/8/2017 01:29
Aroclor 1242	U		0.18	0.20	µg/L	1	5/8/2017 01:29
Aroclor 1248	U		0.18	0.20	µg/L	1	5/8/2017 01:29
Aroclor 1254	U		0.097	0.20	µg/L	1	5/8/2017 01:29
Aroclor 1260	U		0.097	0.20	µg/L	1	5/8/2017 01:29
Aroclor 1262	U		0.097	0.20	µg/L	1	5/8/2017 01:29
Aroclor 1268	U		0.097	0.20	µg/L	1	5/8/2017 01:29
Surr: Decachlorobiphenyl	*102*			*30-150*	*%REC*	1	5/8/2017 01:29
Surr: Tetrachloro-m-xylene	*93.9*			*50-150*	*%REC*	1	5/8/2017 01:29
PESTICIDES		Method:	**SW8081A**				Analyst: **JF**
4,4´-DDD	U		0.0029	0.020	µg/L	1	5/8/2017 16:52
4,4´-DDE	U		0.0024	0.020	µg/L	1	5/8/2017 16:52
4,4´-DDT	U		0.0027	0.020	µg/L	1	5/8/2017 16:52
Aldrin	U		0.0029	0.010	µg/L	1	5/8/2017 16:52
alpha-BHC	U		0.0025	0.010	µg/L	1	5/8/2017 16:52
alpha-Chlordane	U		0.0026	0.020	µg/L	1	5/8/2017 16:52
beta-BHC	U		0.0023	0.010	µg/L	1	5/8/2017 16:52
Chlordane, Technical	U		0.034	0.50	µg/L	1	5/8/2017 16:52
delta-BHC	U		0.0019	0.010	µg/L	1	5/8/2017 16:52
Dieldrin	U		0.0022	0.020	µg/L	1	5/8/2017 16:52
Endosulfan I	U		0.0024	0.020	µg/L	1	5/8/2017 16:52
Endosulfan II	U		0.0020	0.020	µg/L	1	5/8/2017 16:52
Endosulfan sulfate	U		0.0018	0.020	µg/L	1	5/8/2017 16:52
Endrin	U		0.0027	0.020	µg/L	1	5/8/2017 16:52
Endrin aldehyde	U		0.0022	0.020	µg/L	1	5/8/2017 16:52
Endrin ketone	U		0.0017	0.020	µg/L	1	5/8/2017 16:52
gamma-BHC (Lindane)	U		0.0024	0.010	µg/L	1	5/8/2017 16:52
gamma-Chlordane	U		0.0025	0.020	µg/L	1	5/8/2017 16:52
Heptachlor	U		0.0030	0.010	µg/L	1	5/8/2017 16:52
Heptachlor epoxide	U		0.0025	0.010	µg/L	1	5/8/2017 16:52
Methoxychlor	U		0.0039	0.040	µg/L	1	5/8/2017 16:52
Toxaphene	U		0.11	2.0	µg/L	1	5/8/2017 16:52
Surr: Decachlorobiphenyl	*57.2*			*50-150*	*%REC*	1	5/8/2017 16:52
Surr: Tetrachloro-m-xylene	*60.1*			*50-150*	*%REC*	1	5/8/2017 16:52
MERCURY BY CVAA		Method:	**SW7470A**		Prep: SW7470 / 5/4/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW3-050217
Collection Date: 5/2/2017 12:25 PM

Work Order: 1705183
Lab ID: 1705183-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	U		0.000019	0.00020	mg/L	1	5/4/2017 16:09
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3005A / 5/9/17		Analyst: **RH**
Arsenic	**0.0011**	J	**0.00087**	**0.0050**	**mg/L**	1	5/10/2017 10:26
Barium	**0.15**		**0.0022**	**0.0050**	**mg/L**	1	5/10/2017 10:26
Cadmium	U		0.000050	0.0020	mg/L	1	5/10/2017 10:26
Chromium	U		0.00065	0.0050	mg/L	1	5/10/2017 10:26
Lead	U		0.00033	0.0050	mg/L	1	5/10/2017 10:26
Selenium	U		0.00090	0.0050	mg/L	1	5/10/2017 10:26
Silver	U		0.000050	0.0050	mg/L	1	5/10/2017 10:26
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3510 / 5/5/17		Analyst: **RS**
2-Chloronaphthalene	U		0.075	0.10	µg/L	1	5/6/2017 15:16
2-Methylnaphthalene	**1.0**		**0.065**	**0.10**	**µg/L**	1	5/6/2017 15:16
Acenaphthene	U		0.081	0.10	µg/L	1	5/6/2017 15:16
Acenaphthylene	U		0.075	0.10	µg/L	1	5/6/2017 15:16
Anthracene	U		0.028	0.10	µg/L	1	5/6/2017 15:16
Benzo(a)anthracene	U		0.022	0.10	µg/L	1	5/6/2017 15:16
Benzo(a)pyrene	U		0.044	0.10	µg/L	1	5/6/2017 15:16
Benzo(b)fluoranthene	U		0.051	0.10	µg/L	1	5/6/2017 15:16
Benzo(g,h,i)perylene	U		0.030	0.10	µg/L	1	5/6/2017 15:16
Benzo(k)fluoranthene	U		0.048	0.10	µg/L	1	5/6/2017 15:16
Chrysene	U		0.048	0.10	µg/L	1	5/6/2017 15:16
Dibenzo(a,h)anthracene	U		0.030	0.10	µg/L	1	5/6/2017 15:16
Fluoranthene	**0.38**		**0.038**	**0.10**	**µg/L**	1	5/6/2017 15:16
Fluorene	U		0.051	0.10	µg/L	1	5/6/2017 15:16
Indeno(1,2,3-cd)pyrene	U		0.067	0.10	µg/L	1	5/6/2017 15:16
Naphthalene	U		0.067	0.10	µg/L	1	5/6/2017 15:16
Phenanthrene	U		0.030	0.10	µg/L	1	5/6/2017 15:16
Pyrene	**0.070**	J	**0.036**	**0.10**	**µg/L**	1	5/6/2017 15:16
Surr: 2-Fluorobiphenyl	*43.7*			*32-100*	*%REC*	1	5/6/2017 15:16
Surr: 4-Terphenyl-d14	*64.5*			*23-112*	*%REC*	1	5/6/2017 15:16
Surr: Nitrobenzene-d5	*37.6*			*31-93*	*%REC*	1	5/6/2017 15:16
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **AK**
1,1,1-Trichloroethane	U		0.36	1.0	µg/L	1	5/4/2017 03:47
1,1,2,2-Tetrachloroethane	U		0.19	1.0	µg/L	1	5/4/2017 03:47
1,1,2-Trichloroethane	U		0.40	1.0	µg/L	1	5/4/2017 03:47
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	5/4/2017 03:47
1,1-Dichloroethene	U		0.28	1.0	µg/L	1	5/4/2017 03:47
1,2-Dichloroethane	U		0.17	1.0	µg/L	1	5/4/2017 03:47

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW3-050217
Collection Date: 5/2/2017 12:25 PM

Work Order: 1705183
Lab ID: 1705183-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		0.25	1.0	µg/L	1	5/4/2017 03:47
2-Butanone	U		0.58	5.0	µg/L	1	5/4/2017 03:47
2-Hexanone	U		0.13	5.0	µg/L	1	5/4/2017 03:47
4-Methyl-2-pentanone	U		0.11	1.0	µg/L	1	5/4/2017 03:47
Acetone	U		0.92	10	µg/L	1	5/4/2017 03:47
Benzene	U		0.30	1.0	µg/L	1	5/4/2017 03:47
Bromodichloromethane	U		0.23	1.0	µg/L	1	5/4/2017 03:47
Bromoform	U		0.77	1.0	µg/L	1	5/4/2017 03:47
Bromomethane	U		0.38	1.0	µg/L	1	5/4/2017 03:47
Carbon disulfide	U		0.23	1.0	µg/L	1	5/4/2017 03:47
Carbon tetrachloride	U		0.31	1.0	µg/L	1	5/4/2017 03:47
Chlorobenzene	U		0.27	1.0	µg/L	1	5/4/2017 03:47
Chloroethane	U		0.29	1.0	µg/L	1	5/4/2017 03:47
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	5/4/2017 03:47
cis-1,3-Dichloropropene	U		0.39	1.0	µg/L	1	5/4/2017 03:47
Ethylbenzene	U		0.40	1.0	µg/L	1	5/4/2017 03:47
Methyl tert-butyl ether	U		0.12	1.0	µg/L	1	5/4/2017 03:47
Methylene chloride	U		0.56	5.0	µg/L	1	5/4/2017 03:47
Styrene	U		0.24	1.0	µg/L	1	5/4/2017 03:47
Tetrachloroethene	U		0.27	1.0	µg/L	1	5/4/2017 03:47
Toluene	U		0.37	1.0	µg/L	1	5/4/2017 03:47
trans-1,2-Dichloroethene	U		0.28	1.0	µg/L	1	5/4/2017 03:47
trans-1,3-Dichloropropene	U		0.82	1.0	µg/L	1	5/4/2017 03:47
Trichloroethene	U		0.30	1.0	µg/L	1	5/4/2017 03:47
Vinyl chloride	U		0.20	1.0	µg/L	1	5/4/2017 03:47
Xylenes, Total	U		1.3	3.0	µg/L	1	5/4/2017 03:47
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	1	5/4/2017 03:47
Surr: 4-Bromofluorobenzene	*99.7*			*80-110*	*%REC*	1	5/4/2017 03:47
Surr: Dibromofluoromethane	*98.2*			*85-115*	*%REC*	1	5/4/2017 03:47
Surr: Toluene-d8	*102*			*85-110*	*%REC*	1	5/4/2017 03:47

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW2-050217
Collection Date: 5/2/2017 01:10 PM

Work Order: 1705183
Lab ID: 1705183-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS		Method:	**SW8082**		Prep: SW3511 / 5/5/17		Analyst: **EB**
Aroclor 1016	U		0.18	0.20	µg/L	1	5/8/2017 01:43
Aroclor 1221	U		0.18	0.20	µg/L	1	5/8/2017 01:43
Aroclor 1232	U		0.18	0.20	µg/L	1	5/8/2017 01:43
Aroclor 1242	U		0.18	0.20	µg/L	1	5/8/2017 01:43
Aroclor 1248	U		0.18	0.20	µg/L	1	5/8/2017 01:43
Aroclor 1254	U		0.097	0.20	µg/L	1	5/8/2017 01:43
Aroclor 1260	U		0.097	0.20	µg/L	1	5/8/2017 01:43
Aroclor 1262	U		0.097	0.20	µg/L	1	5/8/2017 01:43
Aroclor 1268	U		0.097	0.20	µg/L	1	5/8/2017 01:43
Surr: Decachlorobiphenyl	*99.9*			*30-150*	*%REC*	1	5/8/2017 01:43
Surr: Tetrachloro-m-xylene	*82.8*			*50-150*	*%REC*	1	5/8/2017 01:43
PESTICIDES		Method:	**SW8081A**				Analyst: **JF**
4,4´-DDD	U		0.0029	0.020	µg/L	1	5/8/2017 17:07
4,4´-DDE	U		0.0024	0.020	µg/L	1	5/8/2017 17:07
4,4´-DDT	U		0.0027	0.020	µg/L	1	5/8/2017 17:07
Aldrin	U		0.0029	0.010	µg/L	1	5/8/2017 17:07
alpha-BHC	U		0.0025	0.010	µg/L	1	5/8/2017 17:07
alpha-Chlordane	U		0.0026	0.020	µg/L	1	5/8/2017 17:07
beta-BHC	U		0.0023	0.010	µg/L	1	5/8/2017 17:07
Chlordane, Technical	U		0.034	0.50	µg/L	1	5/8/2017 17:07
delta-BHC	U		0.0019	0.010	µg/L	1	5/8/2017 17:07
Dieldrin	U		0.0022	0.020	µg/L	1	5/8/2017 17:07
Endosulfan I	U		0.0024	0.020	µg/L	1	5/8/2017 17:07
Endosulfan II	U		0.0020	0.020	µg/L	1	5/8/2017 17:07
Endosulfan sulfate	U		0.0018	0.020	µg/L	1	5/8/2017 17:07
Endrin	U		0.0027	0.020	µg/L	1	5/8/2017 17:07
Endrin aldehyde	U		0.0022	0.020	µg/L	1	5/8/2017 17:07
Endrin ketone	U		0.0017	0.020	µg/L	1	5/8/2017 17:07
gamma-BHC (Lindane)	U		0.0024	0.010	µg/L	1	5/8/2017 17:07
gamma-Chlordane	U		0.0025	0.020	µg/L	1	5/8/2017 17:07
Heptachlor	U		0.0030	0.010	µg/L	1	5/8/2017 17:07
Heptachlor epoxide	U		0.0025	0.010	µg/L	1	5/8/2017 17:07
Methoxychlor	U		0.0039	0.040	µg/L	1	5/8/2017 17:07
Toxaphene	U		0.11	2.0	µg/L	1	5/8/2017 17:07
Surr: Decachlorobiphenyl	*50.3*			*50-150*	*%REC*	1	5/8/2017 17:07
Surr: Tetrachloro-m-xylene	*52.3*			*50-150*	*%REC*	1	5/8/2017 17:07
MERCURY BY CVAA		Method:	**SW7470A**		Prep: SW7470 / 5/4/17		Analyst: **JJB**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW2-050217
Collection Date: 5/2/2017 01:10 PM

Work Order: 1705183
Lab ID: 1705183-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Mercury	U		0.000019	0.00020	mg/L	1	5/4/2017 16:12
METALS BY ICP-MS		Method:	**SW6020A**		Prep: SW3005A / 5/9/17		Analyst: **RH**
Arsenic	**0.0032**	J	**0.00087**	**0.0050**	**mg/L**	1	5/10/2017 19:07
Barium	**0.63**		**0.0022**	**0.0050**	**mg/L**	1	5/10/2017 19:07
Cadmium	U		0.000050	0.0020	mg/L	1	5/10/2017 19:07
Chromium	U		0.00065	0.0050	mg/L	1	5/10/2017 19:07
Lead	**0.00072**	J	**0.00033**	**0.0050**	**mg/L**	1	5/10/2017 19:07
Selenium	U		0.00090	0.0050	mg/L	1	5/10/2017 19:07
Silver	U		0.000050	0.0050	mg/L	1	5/10/2017 19:07
SEMI-VOLATILE ORGANIC COMPOUNDS		Method:	**SW846 8270D**		Prep: SW3510 / 5/5/17		Analyst: **RS**
2-Chloronaphthalene	U		0.082	0.11	µg/L	1	5/6/2017 15:39
2-Methylnaphthalene	**14**		**0.071**	**0.11**	**µg/L**	1	5/6/2017 15:39
Acenaphthene	U		0.088	0.11	µg/L	1	5/6/2017 15:39
Acenaphthylene	U		0.082	0.11	µg/L	1	5/6/2017 15:39
Anthracene	U		0.030	0.11	µg/L	1	5/6/2017 15:39
Benzo(a)anthracene	U		0.024	0.11	µg/L	1	5/6/2017 15:39
Benzo(a)pyrene	U		0.048	0.11	µg/L	1	5/6/2017 15:39
Benzo(b)fluoranthene	U		0.055	0.11	µg/L	1	5/6/2017 15:39
Benzo(g,h,i)perylene	U		0.033	0.11	µg/L	1	5/6/2017 15:39
Benzo(k)fluoranthene	U		0.052	0.11	µg/L	1	5/6/2017 15:39
Chrysene	U		0.052	0.11	µg/L	1	5/6/2017 15:39
Dibenzo(a,h)anthracene	U		0.033	0.11	µg/L	1	5/6/2017 15:39
Fluoranthene	U		0.041	0.11	µg/L	1	5/6/2017 15:39
Fluorene	**0.27**		**0.055**	**0.11**	**µg/L**	1	5/6/2017 15:39
Indeno(1,2,3-cd)pyrene	U		0.073	0.11	µg/L	1	5/6/2017 15:39
Naphthalene	**26**		**0.073**	**0.11**	**µg/L**	1	5/6/2017 15:39
Phenanthrene	U		0.033	0.11	µg/L	1	5/6/2017 15:39
Pyrene	U		0.039	0.11	µg/L	1	5/6/2017 15:39
Surr: 2-Fluorobiphenyl	*52.8*			*32-100*	*%REC*	1	5/6/2017 15:39
Surr: 4-Terphenyl-d14	*68.2*			*23-112*	*%REC*	1	5/6/2017 15:39
Surr: Nitrobenzene-d5	*44.3*			*31-93*	*%REC*	1	5/6/2017 15:39
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**				Analyst: **WH**
1,1,1-Trichloroethane	U		0.36	1.0	µg/L	1	5/6/2017 04:13
1,1,2,2-Tetrachloroethane	U		0.19	1.0	µg/L	1	5/6/2017 04:13
1,1,2-Trichloroethane	U		0.40	1.0	µg/L	1	5/6/2017 04:13
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	5/6/2017 04:13
1,1-Dichloroethene	U		0.28	1.0	µg/L	1	5/6/2017 04:13
1,2-Dichloroethane	U		0.17	1.0	µg/L	1	5/6/2017 04:13

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: TDMW2-050217
Collection Date: 5/2/2017 01:10 PM

Work Order: 1705183
Lab ID: 1705183-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloropropane	U		0.25	1.0	µg/L	1	5/6/2017 04:13
2-Butanone	U		0.58	5.0	µg/L	1	5/6/2017 04:13
2-Hexanone	U		0.13	5.0	µg/L	1	5/6/2017 04:13
4-Methyl-2-pentanone	U		0.11	1.0	µg/L	1	5/6/2017 04:13
Acetone	U		0.92	10	µg/L	1	5/6/2017 04:13
Benzene	**58**		**0.30**	**1.0**	**µg/L**	1	5/6/2017 04:13
Bromodichloromethane	U		0.23	1.0	µg/L	1	5/6/2017 04:13
Bromoform	U		0.77	1.0	µg/L	1	5/6/2017 04:13
Bromomethane	U		0.38	1.0	µg/L	1	5/6/2017 04:13
Carbon disulfide	U		0.23	1.0	µg/L	1	5/6/2017 04:13
Carbon tetrachloride	U		0.31	1.0	µg/L	1	5/6/2017 04:13
Chlorobenzene	U		0.27	1.0	µg/L	1	5/6/2017 04:13
Chloroethane	U		0.29	1.0	µg/L	1	5/6/2017 04:13
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	5/6/2017 04:13
cis-1,3-Dichloropropene	U		0.39	1.0	µg/L	1	5/6/2017 04:13
Ethylbenzene	**34**		**0.40**	**1.0**	**µg/L**	1	5/6/2017 04:13
Methyl tert-butyl ether	U		0.12	1.0	µg/L	1	5/6/2017 04:13
Methylene chloride	U		0.56	5.0	µg/L	1	5/6/2017 04:13
Styrene	U		0.24	1.0	µg/L	1	5/6/2017 04:13
Tetrachloroethene	U		0.27	1.0	µg/L	1	5/6/2017 04:13
Toluene	**2.7**		**0.37**	**1.0**	**µg/L**	1	5/6/2017 04:13
trans-1,2-Dichloroethene	U		0.28	1.0	µg/L	1	5/6/2017 04:13
trans-1,3-Dichloropropene	U		0.82	1.0	µg/L	1	5/6/2017 04:13
Trichloroethene	U		0.30	1.0	µg/L	1	5/6/2017 04:13
Vinyl chloride	U		0.20	1.0	µg/L	1	5/6/2017 04:13
Xylenes, Total	**76**		**1.3**	**3.0**	**µg/L**	1	5/6/2017 04:13
Surr: 1,2-Dichloroethane-d4	*101*			*75-120*	*%REC*	1	5/6/2017 04:13
Surr: 4-Bromofluorobenzene	*100*			*80-110*	*%REC*	1	5/6/2017 04:13
Surr: Dibromofluoromethane	*96.2*			*85-115*	*%REC*	1	5/6/2017 04:13
Surr: Toluene-d8	*109*			*85-110*	*%REC*	1	5/6/2017 04:13

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: Trip Blank CLR #1
Collection Date: 5/2/2017

Work Order: 1705183
Lab ID: 1705183-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260B**					Analyst: **AK**
1,1,1-Trichloroethane	U		0.36	1.0	µg/L	1	5/3/2017 21:03
1,1,2,2-Tetrachloroethane	U		0.19	1.0	µg/L	1	5/3/2017 21:03
1,1,2-Trichloroethane	U		0.40	1.0	µg/L	1	5/3/2017 21:03
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	5/3/2017 21:03
1,1-Dichloroethene	U		0.28	1.0	µg/L	1	5/3/2017 21:03
1,2-Dichloroethane	U		0.17	1.0	µg/L	1	5/3/2017 21:03
1,2-Dichloropropane	U		0.25	1.0	µg/L	1	5/3/2017 21:03
2-Butanone	U		0.58	5.0	µg/L	1	5/3/2017 21:03
2-Hexanone	U		0.13	5.0	µg/L	1	5/3/2017 21:03
4-Methyl-2-pentanone	U		0.11	1.0	µg/L	1	5/3/2017 21:03
Acetone	U		0.92	10	µg/L	1	5/3/2017 21:03
Benzene	U		0.30	1.0	µg/L	1	5/3/2017 21:03
Bromodichloromethane	U		0.23	1.0	µg/L	1	5/3/2017 21:03
Bromoform	U		0.77	1.0	µg/L	1	5/3/2017 21:03
Bromomethane	U		0.38	1.0	µg/L	1	5/3/2017 21:03
Carbon disulfide	U		0.23	1.0	µg/L	1	5/3/2017 21:03
Carbon tetrachloride	U		0.31	1.0	µg/L	1	5/3/2017 21:03
Chlorobenzene	U		0.27	1.0	µg/L	1	5/3/2017 21:03
Chloroethane	U		0.29	1.0	µg/L	1	5/3/2017 21:03
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	5/3/2017 21:03
cis-1,3-Dichloropropene	U		0.39	1.0	µg/L	1	5/3/2017 21:03
Ethylbenzene	U		0.40	1.0	µg/L	1	5/3/2017 21:03
Methyl tert-butyl ether	U		0.12	1.0	µg/L	1	5/3/2017 21:03
Methylene chloride	U		0.56	5.0	µg/L	1	5/3/2017 21:03
Styrene	U		0.24	1.0	µg/L	1	5/3/2017 21:03
Tetrachloroethene	U		0.27	1.0	µg/L	1	5/3/2017 21:03
Toluene	U		0.37	1.0	µg/L	1	5/3/2017 21:03
trans-1,2-Dichloroethene	U		0.28	1.0	µg/L	1	5/3/2017 21:03
trans-1,3-Dichloropropene	U		0.82	1.0	µg/L	1	5/3/2017 21:03
Trichloroethene	U		0.30	1.0	µg/L	1	5/3/2017 21:03
Vinyl chloride	U		0.20	1.0	µg/L	1	5/3/2017 21:03
Xylenes, Total	U		1.3	3.0	µg/L	1	5/3/2017 21:03
Surr: 1,2-Dichloroethane-d4	*110*			*75-120*	*%REC*	1	5/3/2017 21:03
Surr: 4-Bromofluorobenzene	*89.1*			*80-110*	*%REC*	1	5/3/2017 21:03
Surr: Dibromofluoromethane	*106*			*85-115*	*%REC*	1	5/3/2017 21:03
Surr: Toluene-d8	*95.6*			*85-110*	*%REC*	1	5/3/2017 21:03

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *11-May-17*

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
Sample ID: Trip Blank CLR #2
Collection Date: 5/2/2017

Work Order: 1705183
Lab ID: 1705183-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260B**					Analyst: **AK**
1,1,1-Trichloroethane	U		0.36	1.0	µg/L	1	5/3/2017 21:27
1,1,2,2-Tetrachloroethane	U		0.19	1.0	µg/L	1	5/3/2017 21:27
1,1,2-Trichloroethane	U		0.40	1.0	µg/L	1	5/3/2017 21:27
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	5/3/2017 21:27
1,1-Dichloroethene	U		0.28	1.0	µg/L	1	5/3/2017 21:27
1,2-Dichloroethane	U		0.17	1.0	µg/L	1	5/3/2017 21:27
1,2-Dichloropropane	U		0.25	1.0	µg/L	1	5/3/2017 21:27
2-Butanone	U		0.58	5.0	µg/L	1	5/3/2017 21:27
2-Hexanone	U		0.13	5.0	µg/L	1	5/3/2017 21:27
4-Methyl-2-pentanone	U		0.11	1.0	µg/L	1	5/3/2017 21:27
Acetone	U		0.92	10	µg/L	1	5/3/2017 21:27
Benzene	U		0.30	1.0	µg/L	1	5/3/2017 21:27
Bromodichloromethane	U		0.23	1.0	µg/L	1	5/3/2017 21:27
Bromoform	U		0.77	1.0	µg/L	1	5/3/2017 21:27
Bromomethane	U		0.38	1.0	µg/L	1	5/3/2017 21:27
Carbon disulfide	U		0.23	1.0	µg/L	1	5/3/2017 21:27
Carbon tetrachloride	U		0.31	1.0	µg/L	1	5/3/2017 21:27
Chlorobenzene	U		0.27	1.0	µg/L	1	5/3/2017 21:27
Chloroethane	U		0.29	1.0	µg/L	1	5/3/2017 21:27
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	5/3/2017 21:27
cis-1,3-Dichloropropene	U		0.39	1.0	µg/L	1	5/3/2017 21:27
Ethylbenzene	U		0.40	1.0	µg/L	1	5/3/2017 21:27
Methyl tert-butyl ether	U		0.12	1.0	µg/L	1	5/3/2017 21:27
Methylene chloride	U		0.56	5.0	µg/L	1	5/3/2017 21:27
Styrene	U		0.24	1.0	µg/L	1	5/3/2017 21:27
Tetrachloroethene	U		0.27	1.0	µg/L	1	5/3/2017 21:27
Toluene	U		0.37	1.0	µg/L	1	5/3/2017 21:27
trans-1,2-Dichloroethene	U		0.28	1.0	µg/L	1	5/3/2017 21:27
trans-1,3-Dichloropropene	U		0.82	1.0	µg/L	1	5/3/2017 21:27
Trichloroethene	U		0.30	1.0	µg/L	1	5/3/2017 21:27
Vinyl chloride	U		0.20	1.0	µg/L	1	5/3/2017 21:27
Xylenes, Total	U		1.3	3.0	µg/L	1	5/3/2017 21:27
Surr: 1,2-Dichloroethane-d4	*107*			*75-120*	*%REC*	1	5/3/2017 21:27
Surr: 4-Bromofluorobenzene	*88.0*			*80-110*	*%REC*	1	5/3/2017 21:27
Surr: Dibromofluoromethane	*105*			*85-115*	*%REC*	1	5/3/2017 21:27
Surr: Toluene-d8	*96.4*			*85-110*	*%REC*	1	5/3/2017 21:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 11-May-17

Client: Tetra Tech EM Inc.
Project: Former Teledyne Site
WorkOrder: **1705183**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group, USA

Date: 11-May-17

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101515** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKW1-101515-101515** Units: **µg/L** Analysis Date: **5/7/2017 08:14 PM**

Client ID: Run ID: **GC14_170507A** SeqNo: **4416732** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.20								
Aroclor 1221	U	0.20								
Aroclor 1232	U	0.20								
Aroclor 1242	U	0.20								
Aroclor 1248	U	0.20								
Aroclor 1254	U	0.20								
Aroclor 1260	U	0.20								
Aroclor 1262	U	0.20								
Aroclor 1268	U	0.20								
Surr: Decachlorobiphenyl	*0.2556*	0	*0.208*	0	*123*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.155*	0	*0.208*	0	*74.5*	*50-150*	0			

LCS Sample ID: **PLCSW1-101515-101515** Units: **µg/L** Analysis Date: **5/7/2017 08:28 PM**

Client ID: Run ID: **GC14_170507A** SeqNo: **4416733** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	4.436	0.20	4.17	0	106	50-150	0			
Aroclor 1260	4.639	0.20	4.17	0	111	50-150	0			
Surr: Decachlorobiphenyl	*0.1874*	0	*0.208*	0	*90.1*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.1608*	0	*0.208*	0	*77.3*	*50-150*	0			

MS Sample ID: **1705040-12A MS** Units: **µg/L** Analysis Date: **5/7/2017 09:40 PM**

Client ID: Run ID: **GC14_170507A** SeqNo: **4416736** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	4.531	0.20	4.17	0	109	50-150	0			
Aroclor 1260	4.371	0.20	4.17	0.06748	103	50-150	0			
Surr: Decachlorobiphenyl	*0.2311*	0	*0.208*	0	*111*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.1655*	0	*0.208*	0	*79.6*	*50-150*	0			

MSD Sample ID: **1705040-12A MSD** Units: **µg/L** Analysis Date: **5/7/2017 09:54 PM**

Client ID: Run ID: **GC14_170507A** SeqNo: **4416737** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	4.427	0.20	4.17	0	106	50-150	4.531	2.33	50	
Aroclor 1260	4.624	0.20	4.17	0.06748	109	50-150	4.371	5.62	50	
Surr: Decachlorobiphenyl	*0.2663*	0	*0.208*	0	*128*	*30-150*	0.2311	*14.1*	*50*	
Surr: Tetrachloro-m-xylene	*0.161*	0	*0.208*	0	*77.4*	*50-150*	0.1655	*2.71*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101515** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

1705183-01A	1705183-02A	1705183-03A
1705183-04A	1705183-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101516A** Instrument ID **GC12** Method: **SW8081A**

MBLK Sample ID: **PBLKW1-101516-101516A** Units: **µg/L** Analysis Date: **5/8/2017 12:34 PM**

Client ID: Run ID: **GC12_170508A** SeqNo: **4418243** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	U	0.020								
4,4´-DDE	U	0.020								
4,4´-DDT	U	0.020								
Aldrin	U	0.010								
alpha-BHC	U	0.010								
alpha-Chlordane	U	0.020								
beta-BHC	U	0.010								
Chlordane, Technical	U	0.50								
delta-BHC	U	0.010								
Dieldrin	U	0.020								
Endosulfan I	U	0.020								
Endosulfan II	U	0.020								
Endosulfan sulfate	U	0.020								
Endrin	U	0.020								
Endrin aldehyde	U	0.020								
Endrin ketone	U	0.020								
gamma-BHC (Lindane)	U	0.010								
gamma-Chlordane	U	0.020								
Heptachlor	U	0.010								
Heptachlor epoxide	U	0.010								
Methoxychlor	U	0.040								
Toxaphene	U	2.0								
Surr: Decachlorobiphenyl	*0.147*	0	*0.208*	0	*70.7*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*0.08732*	0	*0.208*	0	*42*	*50-150*	0			*S*

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101516A** Instrument ID **GC12** Method: **SW8081A**

LCS Sample ID: **PLCSW1-101516-101516A** Units: **µg/L** Analysis Date: **5/8/2017 12:48 PM**

Client ID: Run ID: **GC12_170508A** SeqNo: **4418244** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	0.1942	0.020	0.167	0	116	50-150	0			
4,4´-DDE	0.1946	0.020	0.167	0	116	50-150	0			
4,4´-DDT	0.1981	0.020	0.167	0	119	50-150	0			
Aldrin	0.1467	0.010	0.167	0	87.8	50-150	0			
alpha-BHC	0.191	0.010	0.167	0	114	50-150	0			
alpha-Chlordane	0.1899	0.020	0.167	0	114	50-150	0			
beta-BHC	0.1547	0.010	0.167	0	92.6	50-150	0			
delta-BHC	0.1755	0.010	0.167	0	105	50-150	0			
Dieldrin	0.1958	0.020	0.167	0	117	50-150	0			
Endosulfan I	0.1894	0.020	0.167	0	113	50-150	0			
Endosulfan II	0.1888	0.020	0.167	0	113	50-150	0			
Endosulfan sulfate	0.1891	0.020	0.167	0	113	50-150	0			
Endrin	0.1941	0.020	0.167	0	116	50-150	0			
Endrin aldehyde	0.1699	0.020	0.167	0	102	50-150	0			
Endrin ketone	0.1878	0.020	0.167	0	112	50-150	0			
gamma-BHC (Lindane)	0.1864	0.010	0.167	0	112	50-150	0			
gamma-Chlordane	0.1914	0.020	0.167	0	115	50-150	0			
Heptachlor	0.1919	0.010	0.167	0	115	50-150	0			
Heptachlor epoxide	0.1905	0.010	0.167	0	114	50-150	0			
Methoxychlor	0.192	0.040	0.167	0	115	50-150	0			
Surr: Decachlorobiphenyl	*0.1114*	0	*0.208*	0	*53.5*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*0.1299*	0	*0.208*	0	*62.5*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101516A** Instrument ID **GC12** Method: **SW8081A**

MS Sample ID: **1705157-01C MS** Units: **µg/L** Analysis Date: **5/8/2017 03:55 PM**

Client ID: Run ID: **GC12_170508A** SeqNo: **4418255** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	0.1997	0.020	0.167	0	120	50-150	0			
4,4´-DDE	0.1985	0.020	0.167	0	119	50-150	0			
4,4´-DDT	0.2071	0.020	0.167	0	124	50-150	0			
Aldrin	0.173	0.010	0.167	0	104	50-150	0			
alpha-BHC	0.1964	0.010	0.167	0	118	50-150	0			
alpha-Chlordane	0.1931	0.020	0.167	0	116	50-150	0			
beta-BHC	0.1601	0.010	0.167	0	95.9	50-150	0			
delta-BHC	0.185	0.010	0.167	0	111	50-150	0			
Dieldrin	0.1992	0.020	0.167	0	119	50-150	0			
Endosulfan I	0.194	0.020	0.167	0	116	50-150	0			
Endosulfan II	0.194	0.020	0.167	0	116	50-150	0			
Endosulfan sulfate	0.1995	0.020	0.167	0	119	50-150	0			
Endrin	0.1999	0.020	0.167	0	120	50-150	0			
Endrin aldehyde	0.1669	0.020	0.167	0	100	50-150	0			
Endrin ketone	0.1956	0.020	0.167	0	117	50-150	0			
gamma-BHC (Lindane)	0.1926	0.010	0.167	0	115	50-150	0			
gamma-Chlordane	0.1947	0.020	0.167	0	117	50-150	0			
Heptachlor	0.1991	0.010	0.167	0	119	50-150	0			
Heptachlor epoxide	0.1941	0.010	0.167	0	116	50-150	0			
Methoxychlor	0.2038	0.040	0.167	0	122	50-150	0			
Surr: Decachlorobiphenyl	*0.1454*	0	*0.208*	0	*69.9*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*0.1321*	0	*0.208*	0	*63.5*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101516A** Instrument ID **GC12** Method: **SW8081A**

DUP Sample ID: **1705171-02A DUP** Units: **µg/L** Analysis Date: **5/8/2017 06:47 PM**

Client ID: Run ID: **GC12_170508A** SeqNo: **4418265** Prep Date: **5/5/2017** DF: **500**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	U	15	0	0	0	0-0	0	0	50	
4,4´-DDE	601.1	15	0	0	0	0-0	557.4	7.55	50	
4,4´-DDT	U	15	0	0	0	0-0	0	0	50	
Aldrin	U	7.5	0	0	0	0-0	0	0	50	
alpha-BHC	U	7.5	0	0	0	0-0	0	0	50	
alpha-Chlordane	U	15	0	0	0		0	0	50	
beta-BHC	U	7.5	0	0	0	0-0	0	0	50	
Chlordane, Technical	U	380	0	0	0	0-0	0	0	50	
delta-BHC	U	7.5	0	0	0	0-0	0	0	50	
Dieldrin	U	15	0	0	0	0-0	0	0	50	
Endosulfan I	U	15	0	0	0	0-0	0	0	50	
Endosulfan II	U	15	0	0	0	0-0	0	0	50	
Endosulfan sulfate	U	15	0	0	0	0-0	0	0	50	
Endrin	U	15	0	0	0	0-0	0	0	50	
Endrin aldehyde	U	15	0	0	0	0-0	0	0	50	
Endrin ketone	U	15	0	0	0		0	0	50	
gamma-BHC (Lindane)	U	7.5	0	0	0	0-0	0	0	50	
gamma-Chlordane	U	15	0	0	0		0	0	50	
Heptachlor	481	7.5	0	0	0	0-0	379.2	23.7	50	P
Heptachlor epoxide	U	7.5	0	0	0	0-0	0	0	50	
Methoxychlor	U	30	0	0	0	0-0	0	0	50	
Toxaphene	U	1,500	0	0	0	0-0	0	0	50	
Surr: Decachlorobiphenyl	*U*	0	*0.208*	0	*0*	*50-150*	0	*0*	*50*	*S*
Surr: Tetrachloro-m-xylene	*3.762*	0	*0.208*	0	*1810*	*50-150*	2.888	*26.3*	*50*	*S*

The following samples were analyzed in this batch:

1705183-01A	1705183-02A	1705183-03A
1705183-04A	1705183-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101459** Instrument ID **HG1** Method: **SW7470A**

MBLK Sample ID: **MBLK-101459-101459** Units: **mg/L** Analysis Date: **5/4/2017 03:07 PM**
Client ID: Run ID: **HG1_170504B** SeqNo: **4412490** Prep Date: **5/4/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020								

LCS Sample ID: **LCS-101459-101459** Units: **mg/L** Analysis Date: **5/4/2017 03:10 PM**
Client ID: Run ID: **HG1_170504B** SeqNo: **4412491** Prep Date: **5/4/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00203	0.00020	0.002	0	102	80-120		0		

MS Sample ID: **1705040-12BMS** Units: **mg/L** Analysis Date: **5/4/2017 03:28 PM**
Client ID: Run ID: **HG1_170504B** SeqNo: **4412498** Prep Date: **5/4/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00196	0.00020	0.002	-0.000013	98.6	75-125		0		

MSD Sample ID: **1705040-12BMSD** Units: **mg/L** Analysis Date: **5/4/2017 03:30 PM**
Client ID: Run ID: **HG1_170504B** SeqNo: **4412499** Prep Date: **5/4/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00197	0.00020	0.002	-0.000013	99.2	75-125	0.00196	0.509	20	

The following samples were analyzed in this batch:

1705183-01D	1705183-02D	1705183-03D
1705183-04D	1705183-05D	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101660** Instrument ID **ICPMS2** Method: **SW6020A**

MBLK Sample ID: **MBLK-101660-101660** Units: **mg/L** Analysis Date: **5/10/2017 08:30 AM**

Client ID: Run ID: **ICPMS2_170509A** SeqNo: **4420456** Prep Date: **5/9/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0050								
Barium	U	0.0050								
Cadmium	U	0.0020								
Chromium	0.001074	0.0050								J
Lead	U	0.0050								
Selenium	U	0.0050								
Silver	U	0.0050								

LCS Sample ID: **LCS-101660-101660** Units: **mg/L** Analysis Date: **5/10/2017 08:36 AM**

Client ID: Run ID: **ICPMS2_170509A** SeqNo: **4420457** Prep Date: **5/9/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09964	0.0050	0.1	0	99.6	80-120	0			
Barium	0.1009	0.0050	0.1	0	101	80-120	0			
Cadmium	0.1014	0.0020	0.1	0	101	80-120	0			
Chromium	0.09735	0.0050	0.1	0	97.4	80-120	0			
Lead	0.09834	0.0050	0.1	0	98.3	80-120	0			
Selenium	0.09831	0.0050	0.1	0	98.3	80-120	0			
Silver	0.09623	0.0050	0.1	0	96.2	80-120	0			

MS Sample ID: **1705183-01DMS** Units: **mg/L** Analysis Date: **5/10/2017 08:47 AM**

Client ID: **TDMW1-050217** Run ID: **ICPMS2_170509A** SeqNo: **4420459** Prep Date: **5/9/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1061	0.0050	0.1	0.001392	105	75-125	0			
Barium	0.1763	0.0050	0.1	0.0738	102	75-125	0			
Cadmium	0.09969	0.0020	0.1	0.00009135	99.6	75-125	0			
Chromium	0.09393	0.0050	0.1	0.0001454	93.8	75-125	0			
Lead	0.0994	0.0050	0.1	0.00006324	99.3	75-125	0			
Selenium	0.1062	0.0050	0.1	0.001084	105	75-125	0			
Silver	0.09046	0.0050	0.1	8.812E-06	90.5	75-125	0			

The following samples were analyzed in this batch:

1705183-01D	1705183-02D	1705183-03D
1705183-04D	1705183-05D	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101503** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK Sample ID: **SBLKW1-101503-101503** Units: **µg/L** Analysis Date: **5/5/2017 02:41 PM**

Client ID: Run ID: **SVMS5_170505A** SeqNo: **4416535** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	U	5.0								
2-Methylnaphthalene	U	5.0								
Acenaphthene	U	5.0								
Acenaphthylene	U	5.0								
Anthracene	U	5.0								
Benzo(a)anthracene	U	5.0								
Benzo(a)pyrene	U	5.0								
Benzo(b)fluoranthene	U	5.0								
Benzo(g,h,i)perylene	U	5.0								
Benzo(k)fluoranthene	U	5.0								
Chrysene	U	5.0								
Dibenzo(a,h)anthracene	U	5.0								
Fluoranthene	U	5.0								
Fluorene	U	5.0								
Indeno(1,2,3-cd)pyrene	U	5.0								
Naphthalene	U	5.0								
Phenanthrene	U	5.0								
Pyrene	U	5.0								
Surr: 2-Fluorobiphenyl	*28.74*	0	*50*	0	*57.5*	*32-100*		0		
Surr: 4-Terphenyl-d14	*35.41*	0	*50*	0	*70.8*	*23-112*		0		
Surr: Nitrobenzene-d5	*27.79*	0	*50*	0	*55.6*	*31-93*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101503** Instrument ID **SVMS5** Method: **SW846 8270D**

LCS Sample ID: **SLCSW1-101503-101503** Units: **µg/L** Analysis Date: **5/5/2017 03:04 PM**

Client ID: Run ID: **SVMS5_170505A** SeqNo: **4416536** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	10.9	5.0	20	0	54.5	50-105	0			
2-Methylnaphthalene	10.32	5.0	20	0	51.6	45-105	0			
Acenaphthene	11.7	5.0	20	0	58.5	45-110	0			
Acenaphthylene	11.82	5.0	20	0	59.1	50-105	0			
Anthracene	12.98	5.0	20	0	64.9	55-110	0			
Benzo(a)anthracene	12.61	5.0	20	0	63	55-110	0			
Benzo(a)pyrene	12.6	5.0	20	0	63	55-110	0			
Benzo(b)fluoranthene	12.4	5.0	20	0	62	45-120	0			
Benzo(g,h,i)perylene	13.48	5.0	20	0	67.4	40-125	0			
Benzo(k)fluoranthene	13.35	5.0	20	0	66.8	45-125	0			
Chrysene	12.93	5.0	20	0	64.6	55-110	0			
Dibenzo(a,h)anthracene	14	5.0	20	0	70	40-125	0			
Fluoranthene	13.14	5.0	20	0	65.7	55-115	0			
Fluorene	12.03	5.0	20	0	60.2	50-110	0			
Indeno(1,2,3-cd)pyrene	13.57	5.0	20	0	67.8	45-125	0			
Naphthalene	10.32	5.0	20	0	51.6	40-100	0			
Phenanthrene	12.93	5.0	20	0	64.6	50-115	0			
Pyrene	12.61	5.0	20	0	63	50-130	0			
Surr: 2-Fluorobiphenyl	*28.65*	0	*50*	0	*57.3*	*32-100*	0			
Surr: 4-Terphenyl-d14	*33.46*	0	*50*	0	*66.9*	*23-112*	0			
Surr: Nitrobenzene-d5	*26.75*	0	*50*	0	*53.5*	*31-93*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101503** Instrument ID **SVMS5** Method: **SW846 8270D**

MS Sample ID: **1705183-01B MS** Units: **µg/L** Analysis Date: **5/5/2017 06:15 PM**

Client ID: **TDMW1-050217** Run ID: **SVMS5_170505A** SeqNo: **4416537** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	10.8	5.3	21.28	0	50.8	50-105	0			
2-Methylnaphthalene	10.62	5.3	21.28	0	49.9	45-105	0			
Acenaphthene	12.93	5.3	21.28	0	60.8	45-110	0			
Acenaphthylene	11.94	5.3	21.28	0	56.1	50-105	0			
Anthracene	14.61	5.3	21.28	0	68.6	55-110	0			
Benzo(a)anthracene	14.31	5.3	21.28	0.35	65.6	55-110	0			
Benzo(a)pyrene	14.33	5.3	21.28	0.31	65.9	55-110	0			
Benzo(b)fluoranthene	14.79	5.3	21.28	0.54	67	45-120	0			
Benzo(g,h,i)perylene	14.05	5.3	21.28	0.24	64.9	40-125	0			
Benzo(k)fluoranthene	14.05	5.3	21.28	0.18	65.2	45-125	0			
Chrysene	14.31	5.3	21.28	0.11	66.7	55-110	0			
Dibenzo(a,h)anthracene	14.29	5.3	21.28	0	67.2	40-125	0			
Fluoranthene	15.12	5.3	21.28	1.51	64	55-115	0			
Fluorene	13.32	5.3	21.28	0	62.6	50-110	0			
Indeno(1,2,3-cd)pyrene	14.2	5.3	21.28	0.27	65.5	45-125	0			
Naphthalene	9.649	5.3	21.28	0	45.4	40-100	0			
Phenanthrene	14.68	5.3	21.28	0.83	65.1	50-115	0			
Pyrene	15.56	5.3	21.28	1.14	67.8	50-130	0			
Surr: 2-Fluorobiphenyl	*28.02*	0	*53.19*	0	*52.7*	*32-100*	0			
Surr: 4-Terphenyl-d14	*34.73*	0	*53.19*	0	*65.3*	*23-112*	0			
Surr: Nitrobenzene-d5	*23.46*	0	*53.19*	0	*44.1*	*31-93*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **101503** Instrument ID **SVMS5** Method: **SW846 8270D**

DUP Sample ID: **1705183-02B DUP** Units: **µg/L** Analysis Date: **5/5/2017 07:24 PM**

Client ID: **TDMW5-050217** Run ID: **SVMS5_170505A** SeqNo: **4416540** Prep Date: **5/5/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Chloronaphthalene	U	5.0	0	0	0	0-0	0	0	30	
2-Methylnaphthalene	1.77	5.0	0	0	0	0-0	1.91	0	30	J
Acenaphthene	U	5.0	0	0	0	0-0	0	0	30	
Acenaphthylene	U	5.0	0	0	0	0-0	0	0	30	
Anthracene	U	5.0	0	0	0	0-0	0	0	30	
Benzo(a)anthracene	0.21	5.0	0	0	0	0-0	0.19	0	30	J
Benzo(a)pyrene	0.16	5.0	0	0	0	0-0	0.15	0	30	J
Benzo(b)fluoranthene	0.26	5.0	0	0	0	0-0	0.22	0	30	J
Benzo(g,h,i)perylene	0.1	5.0	0	0	0	0-0	0.08	0	30	J
Benzo(k)fluoranthene	0.1	5.0	0	0	0	0-0	0.09	0	30	J
Chrysene	U	5.0	0	0	0	0-0	0	0	30	
Dibenzo(a,h)anthracene	U	5.0	0	0	0	0-0	0	0	30	
Fluoranthene	0.89	5.0	0	0	0	0-0	0.73	0	30	J
Fluorene	U	5.0	0	0	0	0-0	0	0	30	
Indeno(1,2,3-cd)pyrene	0.13	5.0	0	0	0	0-0	0.11	0	30	J
Naphthalene	4.36	5.0	0	0	0	0-0	4.73	0	30	J
Phenanthrene	0.34	5.0	0	0	0	0-0	0.22	0	30	J
Pyrene	0.46	5.0	0	0	0	0-0	0.34	0	30	J
Surr: 2-Fluorobiphenyl	*22.34*	0	*50*	0	*44.7*	*32-100*	24.4	*8.81*	*40*	
Surr: 4-Terphenyl-d14	*32.77*	0	*50*	0	*65.5*	*23-112*	31.5	*3.95*	*40*	
Surr: Nitrobenzene-d5	*19.26*	0	*50*	0	*38.5*	*31-93*	21.98	*13.2*	*40*	

The following samples were analyzed in this batch:

1705183-01B	1705183-02B	1705183-03B
1705183-04B	1705183-05B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R211100A** Instrument ID **VMS10** Method: **SW8260B**

MBLK Sample ID: **VBLKW2-170503-R211100A** Units: **µg/L** Analysis Date: **5/3/2017 08:39 PM**

Client ID: Run ID: **VMS10_170503B** SeqNo: **4410557** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	1.0								
1,1,2,2-Tetrachloroethane	U	1.0								
1,1,2-Trichloroethane	U	1.0								
1,1-Dichloroethane	U	1.0								
1,1-Dichloroethene	U	1.0								
1,2-Dichloroethane	U	1.0								
1,2-Dichloropropane	U	1.0								
2-Butanone	U	5.0								
2-Hexanone	U	5.0								
4-Methyl-2-pentanone	U	1.0								
Acetone	U	10								
Benzene	U	1.0								
Bromodichloromethane	U	1.0								
Bromoform	U	1.0								
Bromomethane	U	1.0								
Carbon disulfide	U	1.0								
Carbon tetrachloride	U	1.0								
Chlorobenzene	U	1.0								
Chloroethane	U	1.0								
cis-1,2-Dichloroethene	U	1.0								
cis-1,3-Dichloropropene	U	1.0								
Ethylbenzene	U	1.0								
Methyl tert-butyl ether	U	1.0								
Methylene chloride	U	5.0								
Styrene	U	1.0								
Tetrachloroethene	U	1.0								
Toluene	U	1.0								
trans-1,2-Dichloroethene	U	1.0								
trans-1,3-Dichloropropene	U	1.0								
Trichloroethene	U	1.0								
Vinyl chloride	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	*20.76*	0	*20*	0	*104*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*18.11*	0	*20*	0	*90.6*	*80-110*	0			
Surr: Dibromofluoromethane	*20.87*	0	*20*	0	*104*	*85-115*	0			
Surr: Toluene-d8	*19.43*	0	*20*	0	*97.2*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R211100A** Instrument ID **VMS10** Method: **SW8260B**

LCS Sample ID: **VLCSW2-170503-R211100A** Units: **µg/L** Analysis Date: **5/3/2017 07:51 PM**

Client ID: Run ID: **VMS10_170503B** SeqNo: **4410556** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	18.63	1.0	20	0	93.2	75-130	0			
1,1,2,2-Tetrachloroethane	18.4	1.0	20	0	92	75-130	0			
1,1,2-Trichloroethane	18.07	1.0	20	0	90.4	75-125	0			
1,1-Dichloroethane	18.82	1.0	20	0	94.1	75-133	0			
1,1-Dichloroethene	20.4	1.0	20	0	102	70-145	0			
1,2-Dichloroethane	17.97	1.0	20	0	89.8	78-125	0			
1,2-Dichloropropane	17.38	1.0	20	0	86.9	75-125	0			
2-Butanone	17.63	5.0	20	0	88.2	55-150	0			
2-Hexanone	15.83	5.0	20	0	79.2	60-135	0			
4-Methyl-2-pentanone	20.4	1.0	20	0	102	77-178	0			
Acetone	17.5	10	20	0	87.5	60-160	0			
Benzene	19.06	1.0	20	0	95.3	85-125	0			
Bromodichloromethane	18.03	1.0	20	0	90.2	75-125	0			
Bromoform	17.85	1.0	20	0	89.2	60-125	0			
Bromomethane	19.61	1.0	20	0	98	30-185	0			
Carbon disulfide	19.52	1.0	20	0	97.6	60-165	0			
Carbon tetrachloride	19.63	1.0	20	0	98.2	65-140	0			
Chlorobenzene	18.74	1.0	20	0	93.7	80-120	0			
Chloroethane	22.02	1.0	20	0	110	50-140	0			
cis-1,2-Dichloroethene	19.21	1.0	20	0	96	75-134	0			
cis-1,3-Dichloropropene	17.75	1.0	20	0	88.8	70-130	0			
Ethylbenzene	17.47	1.0	20	0	87.4	85-125	0			
Methyl tert-butyl ether	18.93	1.0	20	0	94.6	80-130	0			
Methylene chloride	20.39	5.0	20	0	102	75-140	0			
Styrene	17.99	1.0	20	0	90	83-137	0			
Tetrachloroethene	22.89	1.0	20	0	114	68-166	0			
Toluene	18.73	1.0	20	0	93.6	85-125	0			
trans-1,2-Dichloroethene	19.48	1.0	20	0	97.4	80-140	0			
trans-1,3-Dichloropropene	15.6	1.0	20	0	78	56-132	0			
Trichloroethene	18.98	1.0	20	0	94.9	84-130	0			
Vinyl chloride	19.82	1.0	20	0	99.1	50-136	0			
Xylenes, Total	53.9	3.0	60	0	89.8	80-126	0			
Surr: 1,2-Dichloroethane-d4	*19.43*	0	*20*	0	*97.2*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.98*	0	*20*	0	*105*	*80-110*	0			
Surr: Dibromofluoromethane	*20.08*	0	*20*	0	*100*	*85-115*	0			
Surr: Toluene-d8	*20.39*	0	*20*	0	*102*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R211100A** Instrument ID **VMS10** Method: **SW8260B**

MS Sample ID: **1705183-05C MS** Units: **µg/L** Analysis Date: **5/4/2017 04:58 AM**

Client ID: **TDMW2-050217** Run ID: **VMS10_170503B** SeqNo: **4410570** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	882	50	1000	0	88.2	75-130	0			
1,1,2,2-Tetrachloroethane	973.5	50	1000	0	97.4	75-130	0			
1,1,2-Trichloroethane	972	50	1000	0	97.2	75-125	0			
1,1-Dichloroethane	894.5	50	1000	0	89.4	75-133	0			
1,1-Dichloroethene	936.5	50	1000	0	93.6	70-145	0			
1,2-Dichloroethane	950	50	1000	0	95	78-125	0			
1,2-Dichloropropane	899.5	50	1000	0	90	75-125	0			
2-Butanone	960	250	1000	0	96	55-150	0			
2-Hexanone	856.5	250	1000	0	85.6	60-135	0			
4-Methyl-2-pentanone	1096	50	1000	0	110	77-178	0			
Acetone	1012	500	1000	0	101	60-160	0			
Benzene	978.5	50	1000	46.5	93.2	85-125	0			
Bromodichloromethane	915	50	1000	0	91.5	75-125	0			
Bromoform	921	50	1000	0	92.1	60-125	0			
Bromomethane	875.5	50	1000	0	87.6	30-185	0			
Carbon disulfide	894.5	50	1000	0	89.4	60-165	0			
Carbon tetrachloride	926	50	1000	0	92.6	65-140	0			
Chlorobenzene	921.5	50	1000	0	92.2	80-120	0			
Chloroethane	972	50	1000	0	97.2	50-140	0			
cis-1,2-Dichloroethene	901.5	50	1000	0	90.2	75-134	0			
cis-1,3-Dichloropropene	848	50	1000	0	84.8	70-130	0			
Ethylbenzene	853.5	50	1000	41	81.2	85-125	0			S
Methyl tert-butyl ether	959.5	50	1000	0	96	80-130	0			
Methylene chloride	1013	250	1000	0	101	75-140	0			
Styrene	890	50	1000	0	89	83-137	0			
Tetrachloroethene	1084	50	1000	0	108	68-166	0			
Toluene	897.5	50	1000	0	89.8	85-125	0			
trans-1,2-Dichloroethene	905	50	1000	0	90.5	80-140	0			
trans-1,3-Dichloropropene	764	50	1000	0	76.4	56-132	0			
Trichloroethene	901	50	1000	0	90.1	84-130	0			
Vinyl chloride	902	50	1000	0	90.2	50-136	0			
Xylenes, Total	2623	150	3000	82.5	84.7	80-126	0			
Surr: 1,2-Dichloroethane-d4	*987*	0	*1000*	0	*98.7*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*1053*	0	*1000*	0	*105*	*80-110*	0			
Surr: Dibromofluoromethane	*1002*	0	*1000*	0	*100*	*85-115*	0			
Surr: Toluene-d8	*1020*	0	*1000*	0	*102*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R211100A** Instrument ID **VMS10** Method: **SW8260B**

MSD Sample ID: **1705183-05C MSD** Units: **µg/L** Analysis Date: **5/4/2017 05:21 AM**

Client ID: **TDMW2-050217** Run ID: **VMS10_170503B** SeqNo: **4410571** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	903	50	1000	0	90.3	75-130	882	2.35	30	
1,1,2,2-Tetrachloroethane	974.5	50	1000	0	97.4	75-130	973.5	0.103	30	
1,1,2-Trichloroethane	954.5	50	1000	0	95.4	75-125	972	1.82	30	
1,1-Dichloroethane	903	50	1000	0	90.3	75-133	894.5	0.946	30	
1,1-Dichloroethene	951.5	50	1000	0	95.2	70-145	936.5	1.59	30	
1,2-Dichloroethane	967	50	1000	0	96.7	78-125	950	1.77	30	
1,2-Dichloropropane	900	50	1000	0	90	75-125	899.5	0.0556	30	
2-Butanone	922.5	250	1000	0	92.2	55-150	960	3.98	30	
2-Hexanone	849	250	1000	0	84.9	60-135	856.5	0.88	30	
4-Methyl-2-pentanone	1114	50	1000	0	111	77-178	1096	1.63	30	
Acetone	1047	500	1000	0	105	60-160	1012	3.35	30	
Benzene	992	50	1000	46.5	94.6	85-125	978.5	1.37	30	
Bromodichloromethane	935.5	50	1000	0	93.6	75-125	915	2.22	30	
Bromoform	942.5	50	1000	0	94.2	60-125	921	2.31	30	
Bromomethane	905	50	1000	0	90.5	30-185	875.5	3.31	30	
Carbon disulfide	907	50	1000	0	90.7	60-165	894.5	1.39	30	
Carbon tetrachloride	930.5	50	1000	0	93	65-140	926	0.485	30	
Chlorobenzene	937	50	1000	0	93.7	80-120	921.5	1.67	30	
Chloroethane	986	50	1000	0	98.6	50-140	972	1.43	30	
cis-1,2-Dichloroethene	912	50	1000	0	91.2	75-134	901.5	1.16	30	
cis-1,3-Dichloropropene	880.5	50	1000	0	88	70-130	848	3.76	30	
Ethylbenzene	882.5	50	1000	41	84.2	85-125	853.5	3.34	30	S
Methyl tert-butyl ether	985	50	1000	0	98.5	80-130	959.5	2.62	30	
Methylene chloride	1010	250	1000	0	101	75-140	1013	0.247	30	
Styrene	906.5	50	1000	0	90.6	83-137	890	1.84	30	
Tetrachloroethene	1074	50	1000	0	107	68-166	1084	0.926	30	
Toluene	933	50	1000	0	93.3	85-125	897.5	3.88	30	
trans-1,2-Dichloroethene	920	50	1000	0	92	80-140	905	1.64	30	
trans-1,3-Dichloropropene	777	50	1000	0	77.7	56-132	764	1.69	30	
Trichloroethene	933	50	1000	0	93.3	84-130	901	3.49	30	
Vinyl chloride	908.5	50	1000	0	90.8	50-136	902	0.718	30	
Xylenes, Total	2702	150	3000	82.5	87.3	80-126	2623	2.95	30	
Surr: 1,2-Dichloroethane-d4	*984.5*	0	*1000*	0	*98.4*	*75-120*	987	*0.254*	*30*	
Surr: 4-Bromofluorobenzene	*1040*	0	*1000*	0	*104*	*80-110*	1053	*1.29*	*30*	
Surr: Dibromofluoromethane	*989*	0	*1000*	0	*98.9*	*85-115*	1002	*1.36*	*30*	
Surr: Toluene-d8	*1010*	0	*1000*	0	*101*	*85-110*	1020	*0.985*	*30*	

The following samples were analyzed in this batch:

1705183-01C	1705183-02C	1705183-03C
1705183-04C	1705183-05C	1705183-06A
1705183-07A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R211312** Instrument ID **VMS7** Method: **SW8260B**

MBLK Sample ID: **VBLKW2-170505-R211312** Units: **µg/L** Analysis Date: **5/5/2017 09:54 PM**

Client ID: Run ID: **VMS7_170505B** SeqNo: **4415572** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	1.0								
1,1,2,2-Tetrachloroethane	U	1.0								
1,1,2-Trichloroethane	U	1.0								
1,1-Dichloroethane	U	1.0								
1,1-Dichloroethene	U	1.0								
1,2-Dichloroethane	U	1.0								
1,2-Dichloropropane	U	1.0								
2-Butanone	U	5.0								
2-Hexanone	U	5.0								
4-Methyl-2-pentanone	U	1.0								
Acetone	U	10								
Benzene	U	1.0								
Bromodichloromethane	U	1.0								
Bromoform	U	1.0								
Bromomethane	U	1.0								
Carbon disulfide	U	1.0								
Carbon tetrachloride	U	1.0								
Chlorobenzene	U	1.0								
Chloroethane	U	1.0								
cis-1,2-Dichloroethene	U	1.0								
cis-1,3-Dichloropropene	U	1.0								
Ethylbenzene	U	1.0								
Methyl tert-butyl ether	U	1.0								
Methylene chloride	U	5.0								
Styrene	U	1.0								
Tetrachloroethene	U	1.0								
Toluene	U	1.0								
trans-1,2-Dichloroethene	U	1.0								
trans-1,3-Dichloropropene	U	1.0								
Trichloroethene	U	1.0								
Vinyl chloride	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	*19.83*	0	*20*	0	*99.2*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*18.76*	0	*20*	0	*93.8*	*80-110*	0			
Surr: Dibromofluoromethane	*19.84*	0	*20*	0	*99.2*	*85-115*	0			
Surr: Toluene-d8	*19.5*	0	*20*	0	*97.5*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R211312** Instrument ID **VMS7** Method: **SW8260B**

LCS Sample ID: **VLCSW1-170505-R211312** Units: **µg/L** Analysis Date: **5/5/2017 09:12 PM**

Client ID: Run ID: **VMS7_170505B** SeqNo: **4415571** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.42	1.0	20	0	102	75-130	0			
1,1,2,2-Tetrachloroethane	19.37	1.0	20	0	96.8	75-130	0			
1,1,2-Trichloroethane	17.72	1.0	20	0	88.6	75-125	0			
1,1-Dichloroethane	18.64	1.0	20	0	93.2	75-133	0			
1,1-Dichloroethene	20.18	1.0	20	0	101	70-145	0			
1,2-Dichloroethane	18.25	1.0	20	0	91.2	78-125	0			
1,2-Dichloropropane	17.91	1.0	20	0	89.6	75-125	0			
2-Butanone	19.13	5.0	20	0	95.6	55-150	0			
2-Hexanone	19.87	5.0	20	0	99.4	60-135	0			
4-Methyl-2-pentanone	23.18	1.0	20	0	116	77-178	0			
Acetone	19.54	10	20	0	97.7	60-160	0			
Benzene	18.28	1.0	20	0	91.4	85-125	0			
Bromodichloromethane	17.37	1.0	20	0	86.8	75-125	0			
Bromoform	17.9	1.0	20	0	89.5	60-125	0			
Bromomethane	20.86	1.0	20	0	104	30-185	0			
Carbon disulfide	22.73	1.0	20	0	114	60-165	0			
Carbon tetrachloride	19.59	1.0	20	0	98	65-140	0			
Chlorobenzene	17.35	1.0	20	0	86.8	80-120	0			
Chloroethane	19.28	1.0	20	0	96.4	50-140	0			
cis-1,2-Dichloroethene	18.5	1.0	20	0	92.5	75-134	0			
cis-1,3-Dichloropropene	17.41	1.0	20	0	87	70-130	0			
Ethylbenzene	18.04	1.0	20	0	90.2	85-125	0			
Methyl tert-butyl ether	19.37	1.0	20	0	96.8	80-130	0			
Methylene chloride	19.13	5.0	20	0	95.6	75-140	0			
Styrene	18.55	1.0	20	0	92.8	83-137	0			
Tetrachloroethene	18.39	1.0	20	0	92	68-166	0			
Toluene	18.23	1.0	20	0	91.2	85-125	0			
trans-1,2-Dichloroethene	19.22	1.0	20	0	96.1	80-140	0			
trans-1,3-Dichloropropene	15.82	1.0	20	0	79.1	56-132	0			
Trichloroethene	18.76	1.0	20	0	93.8	84-130	0			
Vinyl chloride	20.21	1.0	20	0	101	50-136	0			
Xylenes, Total	54.7	3.0	60	0	91.2	80-126	0			
Surr: 1,2-Dichloroethane-d4	*19.96*	0	*20*	0	*99.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.94*	0	*20*	0	*99.7*	*80-110*	0			
Surr: Dibromofluoromethane	*20.58*	0	*20*	0	*103*	*85-115*	0			
Surr: Toluene-d8	*19.85*	0	*20*	0	*99.2*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R211312** Instrument ID **VMS7** Method: **SW8260B**

MS Sample ID: **1705152-08A MS** Units: **µg/L** Analysis Date: **5/6/2017 05:17 AM**

Client ID: Run ID: **VMS7_170505B** SeqNo: **4415590** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	159.6	10	200	0	79.8	75-130	0			
1,1,2,2-Tetrachloroethane	169.9	10	200	0	85	75-130	0			
1,1,2-Trichloroethane	160.5	10	200	0	80.2	75-125	0			
1,1-Dichloroethane	162.3	10	200	0	81.2	75-133	0			
1,1-Dichloroethene	178.2	10	200	0	89.1	70-145	0			
1,2-Dichloroethane	160.3	10	200	0	80.2	78-125	0			
1,2-Dichloropropane	152.7	10	200	0	76.4	75-125	0			
2-Butanone	152.6	50	200	0	76.3	55-150	0			
2-Hexanone	173	50	200	0	86.5	60-135	0			
4-Methyl-2-pentanone	207	10	200	0	104	77-178	0			
Acetone	163.4	100	200	0	81.7	60-160	0			
Benzene	155.6	10	200	0	77.8	85-125	0			S
Bromodichloromethane	143.3	10	200	0	71.6	75-125	0			S
Bromoform	145.1	10	200	0	72.6	60-125	0			
Bromomethane	189.1	10	200	0	94.6	30-185	0			
Carbon disulfide	262.1	10	200	0	131	60-165	0			
Carbon tetrachloride	155.4	10	200	0	77.7	65-140	0			
Chlorobenzene	157.6	10	200	0	78.8	80-120	0			S
Chloroethane	174.4	10	200	0	87.2	50-140	0			
cis-1,2-Dichloroethene	163.8	10	200	6.1	78.8	75-134	0			
cis-1,3-Dichloropropene	136.1	10	200	0	68	70-130	0			S
Ethylbenzene	155.9	10	200	0	78	85-125	0			S
Methyl tert-butyl ether	173.7	10	200	0	86.8	80-130	0			
Methylene chloride	169.3	50	200	0	84.6	75-140	0			
Styrene	157.6	10	200	0	78.8	83-137	0			S
Tetrachloroethene	291.2	10	200	181.2	55	68-166	0			S
Toluene	156.4	10	200	0	78.2	85-125	0			S
trans-1,2-Dichloroethene	162.4	10	200	0	81.2	80-140	0			
trans-1,3-Dichloropropene	123.8	10	200	0	61.9	56-132	0			
Trichloroethene	161.4	10	200	2.69	79.4	84-130	0			S
Vinyl chloride	177.6	10	200	0	88.8	50-136	0			
Xylenes, Total	463	30	600	0	77.2	80-126	0			S
Surr: 1,2-Dichloroethane-d4	*203*	0	*200*	0	*102*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*199.5*	0	*200*	0	*99.8*	*80-110*	0			
Surr: Dibromofluoromethane	*202.2*	0	*200*	0	*101*	*85-115*	0			
Surr: Toluene-d8	*202.6*	0	*200*	0	*101*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech EM Inc.
Work Order: 1705183
Project: Former Teledyne Site

QC BATCH REPORT

Batch ID: **R211312** Instrument ID **VMS7** Method: **SW8260B**

MSD Sample ID: **1705152-08A MSD** Units: **µg/L** Analysis Date: **5/6/2017 05:38 AM**

Client ID: Run ID: **VMS7_170505B** SeqNo: **4415591** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	192.9	10	200	0	96.4	75-130	159.6	18.9	30	
1,1,2,2-Tetrachloroethane	195.2	10	200	0	97.6	75-130	169.9	13.9	30	
1,1,2-Trichloroethane	176.8	10	200	0	88.4	75-125	160.5	9.66	30	
1,1-Dichloroethane	189.6	10	200	0	94.8	75-133	162.3	15.5	30	
1,1-Dichloroethene	213.7	10	200	0	107	70-145	178.2	18.1	30	
1,2-Dichloroethane	177.4	10	200	0	88.7	78-125	160.3	10.1	30	
1,2-Dichloropropane	175.1	10	200	0	87.6	75-125	152.7	13.7	30	
2-Butanone	187.5	50	200	0	93.8	55-150	152.6	20.5	30	
2-Hexanone	189.8	50	200	0	94.9	60-135	173	9.26	30	
4-Methyl-2-pentanone	228.3	10	200	0	114	77-178	207	9.79	30	
Acetone	187.8	100	200	0	93.9	60-160	163.4	13.9	30	
Benzene	184.5	10	200	0	92.2	85-125	155.6	17	30	
Bromodichloromethane	163.3	10	200	0	81.6	75-125	143.3	13	30	
Bromoform	166.3	10	200	0	83.2	60-125	145.1	13.6	30	
Bromomethane	216.2	10	200	0	108	30-185	189.1	13.4	30	
Carbon disulfide	210.4	10	200	0	105	60-165	262.1	21.9	30	
Carbon tetrachloride	192.4	10	200	0	96.2	65-140	155.4	21.3	30	
Chlorobenzene	179.7	10	200	0	89.8	80-120	157.6	13.1	30	
Chloroethane	201.4	10	200	0	101	50-140	174.4	14.4	30	
cis-1,2-Dichloroethene	187.2	10	200	6.1	90.6	75-134	163.8	13.3	30	
cis-1,3-Dichloropropene	158.8	10	200	0	79.4	70-130	136.1	15.4	30	
Ethylbenzene	180.6	10	200	0	90.3	85-125	155.9	14.7	30	
Methyl tert-butyl ether	195.2	10	200	0	97.6	80-130	173.7	11.7	30	
Methylene chloride	194.1	50	200	0	97	75-140	169.3	13.6	30	
Styrene	183.6	10	200	0	91.8	83-137	157.6	15.2	30	
Tetrachloroethene	326.6	10	200	181.2	72.7	68-166	291.2	11.5	30	
Toluene	184.2	10	200	0	92.1	85-125	156.4	16.3	30	
trans-1,2-Dichloroethene	192.9	10	200	0	96.4	80-140	162.4	17.2	30	
trans-1,3-Dichloropropene	141.4	10	200	0	70.7	56-132	123.8	13.3	30	
Trichloroethene	191.3	10	200	2.69	94.3	84-130	161.4	17	30	
Vinyl chloride	207.7	10	200	0	104	50-136	177.6	15.6	30	
Xylenes, Total	542.8	30	600	0	90.5	80-126	463	15.9	30	
Surr: 1,2-Dichloroethane-d4	*200.9*	0	*200*	0	*100*	*75-120*	203	*1.04*	*30*	
Surr: 4-Bromofluorobenzene	*196.6*	0	*200*	0	*98.3*	*80-110*	199.5	*1.46*	*30*	
Surr: Dibromofluoromethane	*206*	0	*200*	0	*103*	*85-115*	202.2	*1.86*	*30*	
Surr: Toluene-d8	*201.9*	0	*200*	0	*101*	*85-110*	202.6	*0.346*	*30*	

The following samples were analyzed in this batch: 1705183-02C 1705183-03C 1705183-05C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

2 coolers

ALS Environmental

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511 | Houston, TX +1 281 530 5656 | Spring City, PA +1 610 948 4903 | South Charleston, WV +1 304 356 3168

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Chain of Custody Form

Page 1 of 1

COC ID: 37220

ALS Project Manager:

ALS Work Order #: 1705183

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Former Teledyne Site	A	PCBs / Pesticides
Work Order		Project Number		B	SVOCs
Company Name	Tetra Tech EM Inc	Bill To Company	Tetra Tech EM Inc	C	VOCs
Send Report To	Dave Franc	Invoice Attn		D	Metals by ICP-MS / Mercury by CVAA
Address	1 South Wacker Dr. Suite 3700	Address	1 South Wacker Dr Suite 3700	E	↳ field filtered
				F	
City/State/Zip	Chicago, IL 60606	City/State/Zip	Chicago, IL 60606	G	
Phone	(312) 201-7411	Phone	(312) 201-7411	H	
Fax	(312) 938-0118	Fax	(312) 938-0118	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TDMW1-050217	5-2-17	0945	GW	8,1,2	8	✓	✓	✓	✓							
2	TDMW5-050217	↓	1040	↓	↓	↓	✓	✓	✓	✓							
3	TDMW4-050217		1135				✓	✓	✓	✓							
4	TDMW3-050217		1225				✓	✓	✓	✓							
5	TDMW2-050217	↓	1310	↓	↓	↓	✓	✓	✓	✓							
6/7	Trip Blank	—	—	DI	—	2			✓		(1 per cooler, lab prepared)						
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Ashley Weimer Ashley Weimer

Shipment Method: FedEx

Turnaround Time in Business Days (BD): ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Ashley Weimer	5-2-17	1400	FedEx
Relinquished by: FedEx	Date: 5/3/17	Time: 0800	Received by (Laboratory):
Logged by (Laboratory): Kev	Date: 5/3/17	Time: 1550	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp
5R2	2.8°C
P4G	3.4°C

QC Package: (Check One Box Below)

☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Ref:
Dep:

Date: 08Mar17
Wgt: 30.00 LBS

DV: 0.00

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Svcs: PRIORITY OVERNIGHT Master 7261 2417 3280
TRCK: 7261 2417 3317

ORIGIN ID:GRRA (262) 719-5242
ASHLEY WEIMER
TETRATECH
175 N. CORPORATE DRIVE
SUITE 100
BROOKFIELD, WI 53045
UNITED STATES US

SHIP DATE: 08MAR17
ACTWGT: 30.00 LB MAN
CAD: 0122071/CAFE3011

TO SAMPLE RECEIVING
ALS ENVIRONMENTAL
3352 128TH AVENUE

HOLLAND MI 494249263
(616) 399-6070
INV:
PO:
REF:
DEPT:

RMA:

FedEx Express

E

FedEx
TRK# 0221 7261 2417 3317

WED - 03 MAY 10:30A
PRIORITY OVERNIGHT

NA HLMA

49424
MI-US
GRR

FID 178739 02MAY17 ZHLA 546C1/8734/0C8A

Date: 08Mar17
Wgt: 30.00 LBS
DV:
SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
0.00 TOTAL: 0.00

PRIORITY OVERNIGHT Master 7261 2417 3280
TRCK 7261 2417 3328

SHIP DATE: 08MAR17
ACTWGT: 30.00 LB MAN
CAD: 0122071/CAFE3011

(282) 719-5242
CORPORATE DRIVE
53045
STATES US

SAMPLE RECEIVING
ALS ENVIRONMENTAL
52 128TH AVENUE
OLLAND MI 494249263
REF:
DEPT:

FedEx Express

E

WED - 03 MAY 10:30A
PRIORITY OVERNIGHT

FedEx
TRK# 0221 7261 2417 3328

49424
MI-US
GRR

NA HLMA

FID 178739 02MAY17 ZMLA 646C1/8734/0C8A

ALS Group, USA

Sample Receipt Checklist

Client Name: **TETRATECH-EM-CHI** Date/Time Received: **03-May-17 09:00**

Work Order: **1705183** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 03-May-17 (Date) Reviewed by: Joseph Ribar (eSignature) 05-May-17 (Date)

Matrices: Water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.8/2.8, 3.4/3.4 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	5/3/2017 3:56:13 PM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

CT LABORATORIES

delivering more than data from your environmental analyses

ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

ACCREDITED IN ACCORDANCE WITH nelac

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608-356-2760 • www.ctlaboratories.com

ANALYTICAL REPORT

TETRA TECH
DAVE FRANC
1 S WACKER DRIVE
SUITE 3700
CHICAGO, IL 60606

Project Name: FORMER TELEDYNE SITE
Project Phase: WEST ALLIS, WI
Contract #: 3092
Project #: 103X90260003S051612004
Folder #: 129150
Purchase Order #:

Arrival Temperature: 4.5
Report Date: 07/28/2017
Date Received: 07/21/2017
Reprint Date: 07/28/2017

CT LAB Sample#: 894658 Sample Description: TD-SB47 (2-4)-071917 Sampled: 07/19/2017 0845

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**88.7**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**7.8**	mg/kg	0.45	1.6	1		07/25/2017 09:30	07/25/2017 16:52	NAH	EPA 6010C
Barium	**62.5**	mg/kg	0.032	0.11	1		07/25/2017 09:30	07/25/2017 16:52	NAH	EPA 6010C
Cadmium	**0.33**	mg/kg	0.031	0.10	1		07/25/2017 09:30	07/25/2017 16:52	NAH	EPA 6010C
Chromium	**8.3**	mg/kg	0.93	3.1	1		07/25/2017 09:30	07/25/2017 16:52	NAH	EPA 6010C
Lead	**159**	mg/kg	0.19	0.65	1		07/25/2017 09:30	07/25/2017 16:52	NAH	EPA 6010C
Selenium	**2.6**	mg/kg	1.1 *	3.6	1		07/25/2017 09:30	07/25/2017 16:52	NAH	EPA 6010C
Silver	**0.29**	mg/kg	0.21 *	0.72	1		07/25/2017 09:30	07/25/2017 16:52	NAH	EPA 6010C
Mercury	**0.21**	mg/kg	0.00024	0.00083	1		07/27/2017 07:30	07/27/2017 10:04	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<3.4	mg/kg	3.4	11	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
2-Methylnaphthalene	<4.0	mg/kg	3.9	13	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Acenaphthene	<3.3	mg/kg	3.2	11	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894658 Sample Description: TD-SB47 (2-4)-071917 Sampled: 07/19/2017 0845

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Acenaphthylene	<3.5	mg/kg	3.5	12	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Anthracene	**16.2**	mg/kg	1.2	4.1	10	P	07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Benzo(a)anthracene	**4.91**	mg/kg	0.20	0.66	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Benzo(a)pyrene	**5.96**	mg/kg	0.18	0.70	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Benzo(b)fluoranthene	**5.29**	mg/kg	0.12	0.58	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Benzo(g,h,i)perylene	**3.74**	mg/kg	0.29	1.3	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Benzo(k)fluoranthene	**2.10**	mg/kg	0.27	0.88	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Chrysene	**5.10**	mg/kg	0.56	2.0	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Dibenzo(a,h)anthracene	**4.06**	mg/kg	0.67	2.8	10	P	07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Fluoranthene	**10.9**	mg/kg	0.27	0.89	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Fluorene	**2.15**	mg/kg	1.6 *	5.4	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**4.15**	mg/kg	0.34	1.5	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Naphthalene	<4.8	mg/kg	4.7	16	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Phenanthrene	**5.61**	mg/kg	0.67	2.1	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310
Pyrene	**9.45**	mg/kg	0.45	2.8	10		07/24/2017 13:30	07/27/2017 15:33	RED	EPA 8310

CT LAB Sample#: 894659 Sample Description: TD-SB39 (2-4)-071917 Sampled: 07/19/2017 0925

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**84.1**	%	0.1	0.1	1			07/25/2017 09:31	JAS	EPA 8000C
Percent Moisture	**84.1**	%	0.1	0.1	1			07/25/2017 09:31	JAS	ASTM D2974-87
Metals Results										
Arsenic	**16.5**	mg/kg	0.49	1.7	1		07/25/2017 09:30	07/25/2017 16:59	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894659 Sample Description: TD-SB39 (2-4)-071917 Sampled: 07/19/2017 0925

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Barium	**228**	mg/kg	0.035	0.12	1		07/25/2017 09:30	07/25/2017 16:59	NAH	EPA 6010C
Cadmium	**0.83**	mg/kg	0.034	0.11	1		07/25/2017 09:30	07/25/2017 16:59	NAH	EPA 6010C
Chromium	**22.5**	mg/kg	1.0	3.4	1		07/25/2017 09:30	07/25/2017 16:59	NAH	EPA 6010C
Lead	**485**	mg/kg	0.21	0.71	1		07/25/2017 09:30	07/25/2017 16:59	NAH	EPA 6010C
Selenium	**2.7**	mg/kg	1.2 *	3.9	1		07/25/2017 09:30	07/25/2017 16:59	NAH	EPA 6010C
Silver	**0.50**	mg/kg	0.23 *	0.78	1		07/25/2017 09:30	07/25/2017 16:59	NAH	EPA 6010C
Mercury	**0.20**	mg/kg	0.00025	0.00086	1		07/27/2017 07:30	07/27/2017 10:06	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<3.6	mg/kg	3.5	12	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
2-Methylnaphthalene	<4.2	mg/kg	4.1	14	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Acenaphthene	<3.5	mg/kg	3.4	11	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Acenaphthylene	<3.7	mg/kg	3.7	12	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Anthracene	**40.5**	mg/kg	1.3	4.4	10	P	07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Benzo(a)anthracene	**8.21**	mg/kg	0.21	0.70	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Benzo(a)pyrene	**8.48**	mg/kg	0.19	0.75	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Benzo(b)fluoranthene	**8.15**	mg/kg	0.13	0.62	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Benzo(g,h,i)perylene	**4.67**	mg/kg	0.31	1.4	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Benzo(k)fluoranthene	**3.31**	mg/kg	0.28	0.93	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Chrysene	**8.70**	mg/kg	0.59	2.1	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Dibenzo(a,h)anthracene	**7.09**	mg/kg	0.71	3.0	10	P	07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Fluoranthene	**16.4**	mg/kg	0.28	0.95	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Fluorene	**3.75**	mg/kg	1.7 *	5.7	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**5.53**	mg/kg	0.35	1.5	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Naphthalene	<5.0	mg/kg	5.0	16	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
Phenanthrene	**10.4**	mg/kg	0.71	2.2	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894659 Sample Description: TD-SB39 (2-4)-071917 Sampled: 07/19/2017 0925

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Pyrene	**11.5**	mg/kg	0.47	3.0	10		07/24/2017 13:30	07/27/2017 15:59	RED	EPA 8310
1,1,1,2-Tetrachloroethane	<0.033	mg/kg	0.033	0.11	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.028	mg/kg	0.028	0.096	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.026	mg/kg	0.026	0.085	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	mg/kg	0.019	0.062	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,1-Dichloroethane	<0.030	mg/kg	0.030	0.10	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,1-Dichloroethene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,1-Dichloropropene	<0.013	mg/kg	0.013	0.044	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.026	mg/kg	0.026	0.085	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.026	mg/kg	0.026	0.087	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.036	mg/kg	0.036	0.13	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.047	mg/kg	0.047	0.15	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,2-Dibromoethane	<0.027	mg/kg	0.027	0.091	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.034	mg/kg	0.034	0.11	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,2-Dichloroethane	<0.027	mg/kg	0.027	0.093	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,2-Dichloropropane	<0.014	mg/kg	0.014	0.047	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.026	mg/kg	0.026	0.088	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.032	mg/kg	0.032	0.11	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,3-Dichloropropane	<0.036	mg/kg	0.036	0.12	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.032	mg/kg	0.032	0.11	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
2,2-Dichloropropane	<0.021	mg/kg	0.021	0.072	1	M	07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
2-Butanone	<0.11	mg/kg	0.11	0.36	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
2-Chlorotoluene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
2-Hexanone	<0.13	mg/kg	0.13	0.44	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894659 Sample Description: TD-SB39 (2-4)-071917 Sampled: 07/19/2017 0925

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
4-Chlorotoluene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.083	mg/kg	0.083	0.26	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Acetone	<0.33	mg/kg	0.33	1.1	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Benzene	<0.0059	mg/kg	0.0059	0.020	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Bromobenzene	<0.036	mg/kg	0.036	0.13	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Bromochloromethane	<0.012	mg/kg	0.012	0.040	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Bromodichloromethane	<0.019	mg/kg	0.019	0.063	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Bromoform	<0.021	mg/kg	0.021	0.071	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Bromomethane	<0.047	mg/kg	0.047	0.17	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Carbon disulfide	<0.095	mg/kg	0.095	0.31	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Carbon tetrachloride	<0.026	mg/kg	0.026	0.088	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Chlorobenzene	<0.027	mg/kg	0.027	0.093	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Chloroethane	<0.071	mg/kg	0.071	0.25	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Chloroform	<0.025	mg/kg	0.025	0.082	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Chloromethane	<0.059	mg/kg	0.059	0.20	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
cis-1,2-Dichloroethene	**0.122**	mg/kg	0.032	0.11	1	M	07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.023	mg/kg	0.023	0.074	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Dibromochloromethane	<0.021	mg/kg	0.021	0.072	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Dibromomethane	<0.014	mg/kg	0.014	0.046	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Dichlorodifluoromethane	<0.047	mg/kg	0.047	0.17	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Diisopropyl ether	<0.036	mg/kg	0.036	0.12	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Ethylbenzene	<0.025	mg/kg	0.025	0.083	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Hexachlorobutadiene	<0.033	mg/kg	0.033	0.11	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Isopropylbenzene	<0.030	mg/kg	0.030	0.098	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
m & p-Xylene	<0.032	mg/kg	0.032	0.11	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894659 Sample Description: TD-SB39 (2-4)-071917 Sampled: 07/19/2017 0925

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Methyl tert-butyl ether	<0.028	mg/kg	0.028	0.096	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Methylene chloride	<0.036	mg/kg	0.036	0.12	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
n-Butylbenzene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
n-Propylbenzene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Naphthalene	<0.034	mg/kg	0.034	0.12	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
o-Xylene	<0.028	mg/kg	0.028	0.095	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
p-Isopropyltoluene	<0.026	mg/kg	0.026	0.087	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
sec-Butylbenzene	<0.033	mg/kg	0.033	0.11	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Styrene	<0.034	mg/kg	0.034	0.11	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
tert-Butylbenzene	<0.030	mg/kg	0.030	0.097	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Tetrachloroethene	**0.0496**	mg/kg	0.015 *	0.051	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Tetrahydrofuran	**0.683**	mg/kg	0.17	0.55	1	B	07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Toluene	<0.015	mg/kg	0.015	0.052	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.012	mg/kg	0.012	0.039	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.027	mg/kg	0.027	0.089	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Trichloroethene	**6.83**	mg/kg	0.089	0.29	5	M	07/24/2017 08:42	07/24/2017 16:38	RLD	EPA 8260C
Trichlorofluoromethane	<0.047	mg/kg	0.047	0.15	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Vinyl acetate	<0.14	mg/kg	0.14	0.47	1	M	07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C
Vinyl chloride	<0.012	mg/kg	0.012	0.038	1		07/24/2017 08:42	07/24/2017 14:53	RLD	EPA 8260C

CT LAB Sample#: 894660 Sample Description: TD-SB40 (2-4)-071917 Sampled: 07/19/2017 1000

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method

Inorganic Results

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894660 Sample Description: TD-SB40 (2-4)-071917 Sampled: 07/19/2017 1000

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Solids, Percent	**82.2**	%	0.1	0.1	1			07/25/2017 09:31	JAS	EPA 8000C
Percent Moisture	**82.2**	%	0.1	0.1	1			07/25/2017 09:31	JAS	ASTM D2974-87
Metals Results										
Arsenic	**50.1**	mg/kg	0.52	1.9	1		07/25/2017 09:30	07/25/2017 17:05	NAH	EPA 6010C
Barium	**48.1**	mg/kg	0.037	0.13	1		07/25/2017 09:30	07/25/2017 17:05	NAH	EPA 6010C
Cadmium	**53.4**	mg/kg	0.036	0.12	1		07/25/2017 09:30	07/25/2017 17:05	NAH	EPA 6010C
Chromium	**386**	mg/kg	1.1	3.6	1		07/25/2017 09:30	07/25/2017 17:05	NAH	EPA 6010C
Lead	**61.4**	mg/kg	0.22	0.75	1		07/25/2017 09:30	07/25/2017 17:05	NAH	EPA 6010C
Selenium	<1.3	mg/kg	1.3	4.2	1		07/25/2017 09:30	07/25/2017 17:05	NAH	EPA 6010C
Silver	**1.2**	mg/kg	0.24	0.83	1		07/25/2017 09:30	07/25/2017 17:05	NAH	EPA 6010C
Mercury	**0.035**	mg/kg	0.00026	0.00089	1		07/27/2017 07:30	07/27/2017 10:08	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<1.8	mg/kg	1.8	6.0	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
2-Methylnaphthalene	<2.1	mg/kg	2.1	7.2	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Acenaphthene	<1.8	mg/kg	1.8	5.8	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Acenaphthylene	<1.9	mg/kg	1.9	6.2	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Anthracene	<0.67	mg/kg	0.67	2.2	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Benzo(a)anthracene	**0.249**	mg/kg	0.11 *	0.36	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Benzo(a)pyrene	**0.218**	mg/kg	0.097 *	0.38	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Benzo(b)fluoranthene	**0.479**	mg/kg	0.067	0.32	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Benzo(g,h,i)perylene	**0.285**	mg/kg	0.16 *	0.73	50	P	07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Benzo(k)fluoranthene	**0.473**	mg/kg	0.15 *	0.48	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Chrysene	<0.31	mg/kg	0.30	1.1	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Dibenzo(a,h)anthracene	<0.37	mg/kg	0.36	1.5	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894660 Sample Description: TD-SB40 (2-4)-071917 Sampled: 07/19/2017 1000

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Fluoranthene	**2.30**	mg/kg	0.15	0.49	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Fluorene	<0.85	mg/kg	0.85	2.9	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	<0.18	mg/kg	0.18	0.79	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Naphthalene	<2.6	mg/kg	2.5	8.4	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Phenanthrene	**2.25**	mg/kg	0.36	1.2	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
Pyrene	**1.38**	mg/kg	0.24 *	1.5	50		07/24/2017 13:30	07/27/2017 16:26	RED	EPA 8310
1,1,1,2-Tetrachloroethane	<0.034	mg/kg	0.034	0.11	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.029	mg/kg	0.029	0.099	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.027	mg/kg	0.027	0.088	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	mg/kg	0.019	0.063	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,1-Dichloroethane	<0.030	mg/kg	0.030	0.10	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,1-Dichloroethene	<0.032	mg/kg	0.032	0.10	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,1-Dichloropropene	<0.013	mg/kg	0.013	0.045	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.027	mg/kg	0.027	0.088	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.027	mg/kg	0.027	0.089	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.036	mg/kg	0.036	0.13	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.032	mg/kg	0.032	0.11	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.049	mg/kg	0.049	0.16	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,2-Dibromoethane	<0.028	mg/kg	0.028	0.094	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.035	mg/kg	0.035	0.12	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,2-Dichloroethane	<0.028	mg/kg	0.028	0.095	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,2-Dichloropropane	<0.015	mg/kg	0.015	0.049	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.027	mg/kg	0.027	0.090	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.033	mg/kg	0.033	0.11	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
1,3-Dichloropropane	<0.036	mg/kg	0.036	0.12	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894660 Sample Description: TD-SB40 (2-4)-071917 Sampled: 07/19/2017 1000

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dichlorobenzene	<0.033	mg/kg	0.033	0.11	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
2,2-Dichloropropane	<0.022	mg/kg	0.022	0.074	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
2-Butanone	<0.11	mg/kg	0.11	0.36	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
2-Chlorotoluene	<0.032	mg/kg	0.032	0.11	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
2-Hexanone	<0.13	mg/kg	0.13	0.45	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
4-Chlorotoluene	<0.032	mg/kg	0.032	0.10	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.085	mg/kg	0.085	0.27	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Acetone	<0.34	mg/kg	0.34	1.2	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Benzene	<0.0061	mg/kg	0.0061	0.021	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Bromobenzene	<0.036	mg/kg	0.036	0.13	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Bromochloromethane	<0.012	mg/kg	0.012	0.041	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Bromodichloromethane	<0.019	mg/kg	0.019	0.064	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Bromoform	<0.022	mg/kg	0.022	0.073	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Bromomethane	<0.049	mg/kg	0.049	0.17	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Carbon disulfide	<0.097	mg/kg	0.097	0.32	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Carbon tetrachloride	<0.027	mg/kg	0.027	0.090	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Chlorobenzene	<0.028	mg/kg	0.028	0.095	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Chloroethane	<0.073	mg/kg	0.073	0.26	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Chloroform	<0.026	mg/kg	0.026	0.084	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Chloromethane	<0.061	mg/kg	0.061	0.21	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.033	mg/kg	0.033	0.11	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.023	mg/kg	0.023	0.075	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Dibromochloromethane	<0.022	mg/kg	0.022	0.074	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Dibromomethane	<0.015	mg/kg	0.015	0.047	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Dichlorodifluoromethane	<0.049	mg/kg	0.049	0.17	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894660 Sample Description: TD-SB40 (2-4)-071917 Sampled: 07/19/2017 1000

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Diisopropyl ether	<0.036	mg/kg	0.036	0.12	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Ethylbenzene	<0.026	mg/kg	0.026	0.085	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Hexachlorobutadiene	<0.034	mg/kg	0.034	0.11	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Isopropylbenzene	<0.030	mg/kg	0.030	0.10	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
m & p-Xylene	<0.033	mg/kg	0.033	0.11	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Methyl tert-butyl ether	<0.029	mg/kg	0.029	0.099	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Methylene chloride	<0.036	mg/kg	0.036	0.12	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
n-Butylbenzene	<0.032	mg/kg	0.032	0.10	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
n-Propylbenzene	<0.032	mg/kg	0.032	0.10	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Naphthalene	<0.035	mg/kg	0.035	0.12	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
o-Xylene	<0.029	mg/kg	0.029	0.097	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
p-Isopropyltoluene	<0.027	mg/kg	0.027	0.089	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
sec-Butylbenzene	<0.034	mg/kg	0.034	0.11	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Styrene	<0.035	mg/kg	0.035	0.12	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
tert-Butylbenzene	<0.030	mg/kg	0.030	0.10	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Tetrachloroethene	<0.016	mg/kg	0.016	0.052	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Tetrahydrofuran	**1.16**	mg/kg	0.17	0.56	1	B	07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Toluene	<0.016	mg/kg	0.016	0.054	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.012	mg/kg	0.012	0.040	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.028	mg/kg	0.028	0.091	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Trichloroethene	<0.018	mg/kg	0.018	0.060	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Trichlorofluoromethane	<0.049	mg/kg	0.049	0.16	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Vinyl acetate	<0.15	mg/kg	0.15	0.49	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C
Vinyl chloride	<0.012	mg/kg	0.012	0.039	1		07/24/2017 08:42	07/24/2017 15:42	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894661 Sample Description: TD-SB38 (8-10)-071917 Sampled: 07/19/2017 1040

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**83.0**	%	0.1	0.1	1			07/25/2017 09:31	JAS	EPA 8000C
Percent Moisture	**83.0**	%	0.1	0.1	1			07/25/2017 09:31	JAS	ASTM D2974-87
Metals Results										
Arsenic	**6.6**	mg/kg	0.51	1.8	1		07/25/2017 09:30	07/25/2017 17:12	NAH	EPA 6010C
Barium	**53.9**	mg/kg	0.036	0.12	1		07/25/2017 09:30	07/25/2017 17:12	NAH	EPA 6010C
Cadmium	<0.036	mg/kg	0.036	0.12	1		07/25/2017 09:30	07/25/2017 17:12	NAH	EPA 6010C
Chromium	**19.9**	mg/kg	1.1	3.5	1		07/25/2017 09:30	07/25/2017 17:12	NAH	EPA 6010C
Lead	**13.6**	mg/kg	0.22	0.73	1		07/25/2017 09:30	07/25/2017 17:12	NAH	EPA 6010C
Selenium	**2.8**	mg/kg	1.2 *	4.1	1		07/25/2017 09:30	07/25/2017 17:12	NAH	EPA 6010C
Silver	**0.36**	mg/kg	0.24 *	0.81	1		07/25/2017 09:30	07/25/2017 17:12	NAH	EPA 6010C
Mercury	**0.043**	mg/kg	0.00026	0.00087	1		07/27/2017 07:30	07/27/2017 10:11	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<0.18	mg/kg	0.18	0.59	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
2-Methylnaphthalene	<0.21	mg/kg	0.21	0.71	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Acenaphthene	**3.77**	mg/kg	0.17	0.57	1	P	07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Acenaphthylene	<0.19	mg/kg	0.19	0.62	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Anthracene	<0.067	mg/kg	0.066	0.22	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Benzo(a)anthracene	**0.0479**	mg/kg	0.011	0.035	1	P	07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Benzo(a)pyrene	**0.0689**	mg/kg	0.0096	0.038	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Benzo(b)fluoranthene	**0.161**	mg/kg	0.0066	0.031	1	P	07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Benzo(g,h,i)perylene	<0.016	mg/kg	0.016	0.072	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Benzo(k)fluoranthene	**0.183**	mg/kg	0.014	0.047	1	P	07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Chrysene	**0.453**	mg/kg	0.030	0.11	1	P	07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894661 Sample Description: TD-SB38 (8-10)-071917 Sampled: 07/19/2017 1040

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibenzo(a,h)anthracene	<0.036	mg/kg	0.036	0.15	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Fluoranthene	**0.856**	mg/kg	0.014	0.048	1	P	07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Fluorene	<0.085	mg/kg	0.084	0.29	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	<0.018	mg/kg	0.018	0.078	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Naphthalene	<0.25	mg/kg	0.25	0.83	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Phenanthrene	<0.036	mg/kg	0.036	0.11	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
Pyrene	<0.024	mg/kg	0.024	0.15	1		07/24/2017 13:30	07/28/2017 09:15	RED	EPA 8310
1,1,1,2-Tetrachloroethane	<0.034	mg/kg	0.034	0.11	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.029	mg/kg	0.029	0.097	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.026	mg/kg	0.026	0.087	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	mg/kg	0.019	0.063	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,1-Dichloroethane	<0.030	mg/kg	0.030	0.10	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,1-Dichloroethene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,1-Dichloropropene	<0.013	mg/kg	0.013	0.044	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.026	mg/kg	0.026	0.087	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.026	mg/kg	0.026	0.088	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.036	mg/kg	0.036	0.13	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,2,4-Trimethylbenzene	**0.0363**	mg/kg	0.031 *	0.10	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.048	mg/kg	0.048	0.16	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,2-Dibromoethane	<0.028	mg/kg	0.028	0.093	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.035	mg/kg	0.035	0.11	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,2-Dichloroethane	<0.028	mg/kg	0.028	0.094	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,2-Dichloropropane	<0.014	mg/kg	0.014	0.048	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.026	mg/kg	0.026	0.089	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.032	mg/kg	0.032	0.11	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894661 Sample Description: TD-SB38 (8-10)-071917 Sampled: 07/19/2017 1040

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichloropropane	<0.036	mg/kg	0.036	0.12	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.032	mg/kg	0.032	0.11	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
2,2-Dichloropropane	<0.022	mg/kg	0.022	0.073	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
2-Butanone	<0.11	mg/kg	0.11	0.36	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
2-Chlorotoluene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
2-Hexanone	<0.13	mg/kg	0.13	0.44	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
4-Chlorotoluene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.084	mg/kg	0.084	0.26	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Acetone	<0.34	mg/kg	0.34	1.1	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Benzene	<0.0060	mg/kg	0.0060	0.020	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Bromobenzene	<0.036	mg/kg	0.036	0.13	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Bromochloromethane	<0.012	mg/kg	0.012	0.041	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Bromodichloromethane	<0.019	mg/kg	0.019	0.064	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Bromoform	<0.022	mg/kg	0.022	0.072	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Bromomethane	<0.048	mg/kg	0.048	0.17	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Carbon disulfide	<0.096	mg/kg	0.096	0.31	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Carbon tetrachloride	<0.026	mg/kg	0.026	0.089	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Chlorobenzene	<0.028	mg/kg	0.028	0.094	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Chloroethane	<0.072	mg/kg	0.072	0.25	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Chloroform	<0.025	mg/kg	0.025	0.083	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Chloromethane	<0.060	mg/kg	0.060	0.20	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.032	mg/kg	0.032	0.11	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.023	mg/kg	0.023	0.075	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Dibromochloromethane	<0.022	mg/kg	0.022	0.073	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Dibromomethane	<0.014	mg/kg	0.014	0.047	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894661 Sample Description: TD-SB38 (8-10)-071917 Sampled: 07/19/2017 1040

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dichlorodifluoromethane	<0.048	mg/kg	0.048	0.17	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Diisopropyl ether	<0.036	mg/kg	0.036	0.12	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Ethylbenzene	<0.025	mg/kg	0.025	0.084	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Hexachlorobutadiene	<0.034	mg/kg	0.034	0.11	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Isopropylbenzene	<0.030	mg/kg	0.030	0.10	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
m & p-Xylene	<0.032	mg/kg	0.032	0.11	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Methyl tert-butyl ether	<0.029	mg/kg	0.029	0.097	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Methylene chloride	<0.036	mg/kg	0.036	0.12	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
n-Butylbenzene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
n-Propylbenzene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Naphthalene	<0.035	mg/kg	0.035	0.12	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
o-Xylene	<0.029	mg/kg	0.029	0.096	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
p-Isopropyltoluene	<0.026	mg/kg	0.026	0.088	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
sec-Butylbenzene	<0.034	mg/kg	0.034	0.11	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Styrene	<0.035	mg/kg	0.035	0.12	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
tert-Butylbenzene	<0.030	mg/kg	0.030	0.099	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Tetrachloroethene	<0.016	mg/kg	0.016	0.052	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Tetrahydrofuran	**1.06**	mg/kg	0.17	0.55	1	B	07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Toluene	<0.016	mg/kg	0.016	0.053	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.012	mg/kg	0.012	0.040	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.028	mg/kg	0.028	0.090	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Trichloroethene	<0.018	mg/kg	0.018	0.059	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Trichlorofluoromethane	<0.048	mg/kg	0.048	0.16	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Vinyl acetate	<0.14	mg/kg	0.14	0.48	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C
Vinyl chloride	<0.012	mg/kg	0.012	0.038	1		07/24/2017 08:42	07/24/2017 16:10	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894662 Sample Description: TD-SB46 (4-8)-071917 Sampled: 07/19/2017 1130

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**83.3**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**20.5**	mg/kg	0.56	2.0	1		07/25/2017 09:30	07/25/2017 17:18	NAH	EPA 6010C
Barium	**284**	mg/kg	0.040	0.14	1		07/25/2017 09:30	07/25/2017 17:18	NAH	EPA 6010C
Cadmium	**0.45**	mg/kg	0.039	0.13	1		07/25/2017 09:30	07/25/2017 17:18	NAH	EPA 6010C
Chromium	**16.8**	mg/kg	1.2	3.9	1		07/25/2017 09:30	07/25/2017 17:18	NAH	EPA 6010C
Lead	**454**	mg/kg	0.24	0.81	1		07/25/2017 09:30	07/25/2017 17:18	NAH	EPA 6010C
Selenium	**2.8**	mg/kg	1.4 *	4.5	1		07/25/2017 09:30	07/25/2017 17:18	NAH	EPA 6010C
Silver	**0.47**	mg/kg	0.26 *	0.90	1		07/25/2017 09:30	07/25/2017 17:18	NAH	EPA 6010C
Mercury	**0.21**	mg/kg	0.00026	0.00088	1		07/27/2017 07:30	07/27/2017 10:13	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<1.8	mg/kg	1.8	5.9	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
2-Methylnaphthalene	<2.1	mg/kg	2.1	7.1	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Acenaphthene	<1.7	mg/kg	1.7	5.7	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Acenaphthylene	<1.9	mg/kg	1.9	6.2	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Anthracene	**9.71**	mg/kg	0.66	2.2	10	P	07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Benzo(a)anthracene	**2.88**	mg/kg	0.11	0.35	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Benzo(a)pyrene	**4.10**	mg/kg	0.096	0.38	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Benzo(b)fluoranthene	**3.87**	mg/kg	0.066	0.31	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Benzo(g,h,i)perylene	**2.82**	mg/kg	0.16	0.72	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Benzo(k)fluoranthene	**1.52**	mg/kg	0.14	0.47	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Chrysene	**2.95**	mg/kg	0.30	1.1	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Dibenzo(a,h)anthracene	**2.98**	mg/kg	0.36	1.5	10	P	07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894662 Sample Description: TD-SB46 (4-8)-071917 Sampled: 07/19/2017 1130

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Fluoranthene	**6.82**	mg/kg	0.14	0.48	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Fluorene	**1.01**	mg/kg	0.84 *	2.9	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**3.14**	mg/kg	0.18	0.78	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Naphthalene	<2.5	mg/kg	2.5	8.3	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Phenanthrene	**2.65**	mg/kg	0.36	1.1	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310
Pyrene	**6.70**	mg/kg	0.24	1.5	10		07/24/2017 13:30	07/27/2017 17:18	RED	EPA 8310

CT LAB Sample#: 894663 Sample Description: TD-SB46 (4-8)-071917D Sampled: 07/19/2017 1135

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**82.4**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**38.7**	mg/kg	0.69	2.4	1		07/25/2017 09:30	07/25/2017 17:44	NAH	EPA 6010C
Barium	**429**	mg/kg	0.049	0.17	1		07/25/2017 09:30	07/25/2017 17:44	NAH	EPA 6010C
Cadmium	**0.91**	mg/kg	0.048	0.16	1		07/25/2017 09:30	07/25/2017 17:44	NAH	EPA 6010C
Chromium	**37.0**	mg/kg	1.4	4.7	1		07/25/2017 09:30	07/25/2017 17:44	NAH	EPA 6010C
Lead	**841**	mg/kg	0.29	0.99	1		07/25/2017 09:30	07/25/2017 17:44	NAH	EPA 6010C
Selenium	**3.3**	mg/kg	1.7 *	5.5	1		07/25/2017 09:30	07/25/2017 17:44	NAH	EPA 6010C
Silver	**0.60**	mg/kg	0.32 *	1.1	1		07/25/2017 09:30	07/25/2017 17:44	NAH	EPA 6010C
Mercury	**0.77**	mg/kg	0.0028	0.0094	10		07/27/2017 07:30	07/27/2017 10:31	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<9.1	mg/kg	9.1	30	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
2-Methylnaphthalene	<11	mg/kg	11	36	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894663 Sample Description: TD-SB46 (4-8)-071917D Sampled: 07/19/2017 1135

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Acenaphthene	<8.8	mg/kg	8.8	29	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Acenaphthylene	<9.4	mg/kg	9.4	31	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Anthracene	<3.3	mg/kg	3.3	11	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Benzo(a)anthracene	**9.92**	mg/kg	0.54	1.8	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Benzo(a)pyrene	**10.1**	mg/kg	0.48	1.9	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Benzo(b)fluoranthene	**9.14**	mg/kg	0.33	1.6	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Benzo(g,h,i)perylene	**6.65**	mg/kg	0.79	3.6	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Benzo(k)fluoranthene	**4.27**	mg/kg	0.73	2.4	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Chrysene	**9.59**	mg/kg	1.5	5.4	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Dibenzo(a,h)anthracene	**7.59**	mg/kg	1.8 *	7.6	50	P	07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Fluoranthene	**17.9**	mg/kg	0.73	2.4	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Fluorene	<4.3	mg/kg	4.2	15	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**7.35**	mg/kg	0.91	3.9	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Naphthalene	<13	mg/kg	13	42	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Phenanthrene	**5.93**	mg/kg	1.8	5.7	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310
Pyrene	**15.5**	mg/kg	1.2	7.6	50		07/24/2017 13:30	07/28/2017 09:45	RED	EPA 8310

CT LAB Sample#: 894664 Sample Description: TD-SB37 (4-6)-071917 Sampled: 07/19/2017 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**74.7**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**11.9**	mg/kg	0.73	2.6	1		07/25/2017 09:30	07/25/2017 17:50	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894664 Sample Description: TD-SB37 (4-6)-071917 Sampled: 07/19/2017 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Barium	**138**	mg/kg	0.052	0.18	1		07/25/2017 09:30	07/25/2017 17:50	NAH	EPA 6010C
Cadmium	<0.051	mg/kg	0.051	0.17	1		07/25/2017 09:30	07/25/2017 17:50	NAH	EPA 6010C
Chromium	**27.8**	mg/kg	1.5	5.1	1		07/25/2017 09:30	07/25/2017 17:50	NAH	EPA 6010C
Lead	**66.4**	mg/kg	0.31	1.1	1		07/25/2017 09:30	07/25/2017 17:50	NAH	EPA 6010C
Selenium	**3.6**	mg/kg	1.8 *	5.9	1		07/25/2017 09:30	07/25/2017 17:50	NAH	EPA 6010C
Silver	**0.72**	mg/kg	0.35 *	1.2	1		07/25/2017 09:30	07/25/2017 17:50	NAH	EPA 6010C
Mercury	**0.90**	mg/kg	0.0028	0.0095	10		07/27/2017 07:30	07/27/2017 10:33	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	**0.367**	mg/kg	0.040	0.13	1	P	07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
2-Methylnaphthalene	**0.353**	mg/kg	0.046	0.16	1	P	07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Acenaphthene	<0.039	mg/kg	0.039	0.13	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Acenaphthylene	<0.042	mg/kg	0.041	0.14	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Anthracene	<0.015	mg/kg	0.015	0.049	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Benzo(a)anthracene	**0.0456**	mg/kg	0.0024	0.0078	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Benzo(a)pyrene	**0.0914**	mg/kg	0.0021	0.0084	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Benzo(b)fluoranthene	**0.106**	mg/kg	0.0015	0.0069	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Benzo(g,h,i)perylene	**0.0924**	mg/kg	0.0035	0.016	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Benzo(k)fluoranthene	**0.0724**	mg/kg	0.0032	0.010	1	P	07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Chrysene	**0.0677**	mg/kg	0.0066	0.024	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Dibenzo(a,h)anthracene	**0.0887**	mg/kg	0.0080	0.033	1	P	07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Fluoranthene	**0.157**	mg/kg	0.0032	0.011	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Fluorene	<0.019	mg/kg	0.019	0.064	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**0.0738**	mg/kg	0.0040	0.017	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Naphthalene	**0.212**	mg/kg	0.056	0.18	1	P	07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310
Phenanthrene	**0.207**	mg/kg	0.0080	0.025	1	P	07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894664 Sample Description: TD-SB37 (4-6)-071917 Sampled: 07/19/2017 1215

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Pyrene	**0.0112**	mg/kg	0.0053 *	0.033	1		07/24/2017 13:30	07/28/2017 10:12	RED	EPA 8310

CT LAB Sample#: 894665 Sample Description: TD-SB36 (2-4)-071917 Sampled: 07/19/2017 1245

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**83.7**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**22.7**	mg/kg	0.69	2.4	1		07/25/2017 09:30	07/25/2017 17:57	NAH	EPA 6010C
Barium	**541**	mg/kg	0.049	0.17	1		07/25/2017 09:30	07/25/2017 17:57	NAH	EPA 6010C
Cadmium	**3.7**	mg/kg	0.048	0.16	1		07/25/2017 09:30	07/25/2017 17:57	NAH	EPA 6010C
Chromium	**19.2**	mg/kg	1.4	4.7	1		07/25/2017 09:30	07/25/2017 17:57	NAH	EPA 6010C
Lead	**1100**	mg/kg	0.29	0.99	1		07/25/2017 09:30	07/25/2017 17:57	NAH	EPA 6010C
Selenium	<1.7	mg/kg	1.7	5.5	1		07/25/2017 09:30	07/25/2017 17:57	NAH	EPA 6010C
Silver	**0.39**	mg/kg	0.32 *	1.1	1		07/25/2017 09:30	07/25/2017 17:57	NAH	EPA 6010C
Mercury	**0.12**	mg/kg	0.00026	0.00089	1		07/27/2017 07:30	07/27/2017 10:35	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	**1.36**	mg/kg	0.36	1.2	10	P	07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
2-Methylnaphthalene	<0.42	mg/kg	0.42	1.4	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Acenaphthene	<0.35	mg/kg	0.35	1.1	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Acenaphthylene	**0.512**	mg/kg	0.37 *	1.2	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Anthracene	**4.09**	mg/kg	0.13	0.44	10	P	07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Benzo(a)anthracene	**0.923**	mg/kg	0.022	0.071	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Benzo(a)pyrene	**1.29**	mg/kg	0.019	0.075	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894665 Sample Description: TD-SB36 (2-4)-071917 Sampled: 07/19/2017 1245

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Benzo(b)fluoranthene	**1.29**	mg/kg	0.013	0.062	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Benzo(g,h,i)perylene	**0.977**	mg/kg	0.031	0.14	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Benzo(k)fluoranthene	**0.600**	mg/kg	0.029	0.095	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Chrysene	**1.19**	mg/kg	0.060	0.22	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Dibenzo(a,h)anthracene	**0.913**	mg/kg	0.072	0.30	10	P	07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Fluoranthene	**1.88**	mg/kg	0.029	0.096	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Fluorene	**0.528**	mg/kg	0.17 *	0.57	10	P	07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**0.988**	mg/kg	0.036	0.16	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Naphthalene	<0.50	mg/kg	0.50	1.7	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Phenanthrene	**1.06**	mg/kg	0.072	0.23	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310
Pyrene	**1.48**	mg/kg	0.048	0.30	10		07/24/2017 13:30	07/27/2017 18:38	RED	EPA 8310

CT LAB Sample#: 894666 Sample Description: TD-SB35 (6-8)-071917 Sampled: 07/19/2017 1335

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**80.0**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**5.5**	mg/kg	0.66	2.4	1		07/25/2017 09:30	07/25/2017 18:03	NAH	EPA 6010C
Barium	**134**	mg/kg	0.047	0.16	1		07/25/2017 09:30	07/25/2017 18:03	NAH	EPA 6010C
Cadmium	**0.37**	mg/kg	0.046	0.15	1		07/25/2017 09:30	07/25/2017 18:03	NAH	EPA 6010C
Chromium	**20.8**	mg/kg	1.4	4.6	1		07/25/2017 09:30	07/25/2017 18:03	NAH	EPA 6010C
Lead	**169**	mg/kg	0.28	0.96	1	Y,M	07/25/2017 09:30	07/25/2017 18:03	NAH	EPA 6010C
Selenium	**3.9**	mg/kg	1.6 *	5.3	1		07/25/2017 09:30	07/25/2017 18:03	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894666 Sample Description: TD-SB35 (6-8)-071917 Sampled: 07/19/2017 1335

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Silver	**1.8**	mg/kg	0.31	1.1	1		07/25/2017 09:30	07/25/2017 18:03	NAH	EPA 6010C
Mercury	**1.0**	mg/kg	0.0028	0.0095	10	M,Y	07/27/2017 07:30	07/27/2017 12:17	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<0.038	mg/kg	0.038	0.12	1	Y	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
2-Methylnaphthalene	<0.044	mg/kg	0.044	0.15	1	Y	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Acenaphthene	<0.036	mg/kg	0.036	0.12	1	Y	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Acenaphthylene	<0.039	mg/kg	0.039	0.13	1	Y	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Anthracene	**0.396**	mg/kg	0.014	0.046	1	P,M	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Benzo(a)anthracene	**0.105**	mg/kg	0.011	0.037	5	M	07/24/2017 13:30	07/28/2017 10:38	RED	EPA 8310
Benzo(a)pyrene	**0.127**	mg/kg	0.0020	0.0079	1	M,Y	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Benzo(b)fluoranthene	**0.128**	mg/kg	0.0014	0.0065	1	M,Y	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Benzo(g,h,i)perylene	**0.0990**	mg/kg	0.0033	0.015	1		07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Benzo(k)fluoranthene	**0.0515**	mg/kg	0.0030	0.0099	1	M	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Chrysene	**0.127**	mg/kg	0.0063	0.023	1		07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Dibenzo(a,h)anthracene	**0.0907**	mg/kg	0.0075	0.031	1	P	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Fluoranthene	**0.273**	mg/kg	0.015	0.050	5	M,Y	07/24/2017 13:30	07/28/2017 10:38	RED	EPA 8310
Fluorene	**0.0616**	mg/kg	0.018	0.060	1	Y	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**0.0936**	mg/kg	0.0038	0.016	1		07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Naphthalene	<0.053	mg/kg	0.053	0.17	1	Y	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Phenanthrene	**0.138**	mg/kg	0.0075	0.024	1	M,Y	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310
Pyrene	**0.238**	mg/kg	0.0050	0.031	1	M	07/24/2017 13:30	07/27/2017 19:30	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894667 Sample Description: TD-SB34 (2-4)-071917 Sampled: 07/19/2017 1410

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**88.0**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**11.6**	mg/kg	0.47	1.7	1		07/25/2017 09:30	07/25/2017 18:29	NAH	EPA 6010C
Barium	**70.3**	mg/kg	0.034	0.11	1		07/25/2017 09:30	07/25/2017 18:29	NAH	EPA 6010C
Cadmium	**0.20**	mg/kg	0.033	0.11	1		07/25/2017 09:30	07/25/2017 18:29	NAH	EPA 6010C
Chromium	**19.5**	mg/kg	0.98	3.3	1		07/25/2017 09:30	07/25/2017 18:29	NAH	EPA 6010C
Lead	**24.2**	mg/kg	0.20	0.68	1		07/25/2017 09:30	07/25/2017 18:29	NAH	EPA 6010C
Selenium	**2.2**	mg/kg	1.1 *	3.8	1		07/25/2017 09:30	07/25/2017 18:29	NAH	EPA 6010C
Silver	**0.32**	mg/kg	0.22 *	0.76	1		07/25/2017 09:30	07/25/2017 18:29	NAH	EPA 6010C
Mercury	**0.070**	mg/kg	0.00024	0.00083	1		07/27/2017 07:30	07/27/2017 10:44	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<0.034	mg/kg	0.034	0.11	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
2-Methylnaphthalene	<0.040	mg/kg	0.040	0.13	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Acenaphthene	<0.033	mg/kg	0.033	0.11	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Acenaphthylene	<0.035	mg/kg	0.035	0.12	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Anthracene	<0.013	mg/kg	0.013	0.042	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Benzo(a)anthracene	**0.0171**	mg/kg	0.0020	0.0067	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Benzo(a)pyrene	**0.0335**	mg/kg	0.0018	0.0072	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Benzo(b)fluoranthene	**0.0385**	mg/kg	0.0013	0.0059	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Benzo(g,h,i)perylene	**0.0404**	mg/kg	0.0030	0.014	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Benzo(k)fluoranthene	**0.0112**	mg/kg	0.0027	0.0090	1	P	07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Chrysene	**0.0339**	mg/kg	0.0057	0.020	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Dibenzo(a,h)anthracene	**0.0524**	mg/kg	0.0068	0.028	1	P	07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894667 Sample Description: TD-SB34 (2-4)-071917 Sampled: 07/19/2017 1410

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Fluoranthene	**0.0556**	mg/kg	0.0027	0.0091	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Fluorene	**0.0238**	mg/kg	0.016 *	0.055	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**0.0195**	mg/kg	0.0034	0.015	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Naphthalene	<0.048	mg/kg	0.048	0.16	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Phenanthrene	**0.0915**	mg/kg	0.0068	0.022	1	P	07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310
Pyrene	**0.0381**	mg/kg	0.0046	0.028	1		07/24/2017 13:30	07/27/2017 19:57	RED	EPA 8310

CT LAB Sample#: 894668 Sample Description: TD-SB44 (2-4)-071917 Sampled: 07/19/2017 1440

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**84.6**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**10.2**	mg/kg	0.47	1.7	1		07/25/2017 09:30	07/25/2017 18:35	NAH	EPA 6010C
Barium	**2470**	mg/kg	0.67	2.3	20		07/25/2017 09:30	07/26/2017 16:45	NAH	EPA 6010C
Cadmium	**0.41**	mg/kg	0.033	0.11	1		07/25/2017 09:30	07/25/2017 18:35	NAH	EPA 6010C
Chromium	**27.6**	mg/kg	0.97	3.3	1		07/25/2017 09:30	07/25/2017 18:35	NAH	EPA 6010C
Lead	**123**	mg/kg	0.20	0.68	1		07/25/2017 09:30	07/25/2017 18:35	NAH	EPA 6010C
Selenium	<1.1	mg/kg	1.1	3.8	1		07/25/2017 09:30	07/25/2017 18:35	NAH	EPA 6010C
Silver	**0.43**	mg/kg	0.22 *	0.75	1		07/25/2017 09:30	07/25/2017 18:35	NAH	EPA 6010C
Mercury	**0.088**	mg/kg	0.00026	0.00088	1		07/27/2017 07:30	07/27/2017 10:47	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	**0.375**	mg/kg	0.035	0.12	1	P	07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
2-Methylnaphthalene	**0.169**	mg/kg	0.041	0.14	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894668 Sample Description: TD-SB44 (2-4)-071917 Sampled: 07/19/2017 1440

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Acenaphthene	<0.034	mg/kg	0.034	0.11	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Acenaphthylene	**0.0916**	mg/kg	0.037 *	0.12	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Anthracene	<0.013	mg/kg	0.013	0.044	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Benzo(a)anthracene	**0.0280**	mg/kg	0.0021	0.0070	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Benzo(a)pyrene	**0.0367**	mg/kg	0.0019	0.0074	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Benzo(b)fluoranthene	**0.0488**	mg/kg	0.0013	0.0061	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Benzo(g,h,i)perylene	**0.0347**	mg/kg	0.0031	0.014	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Benzo(k)fluoranthene	**0.0256**	mg/kg	0.0028	0.0093	1	P	07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Chrysene	**0.0586**	mg/kg	0.0059	0.021	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Dibenzo(a,h)anthracene	**0.0326**	mg/kg	0.0071	0.030	1	P	07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Fluoranthene	**0.113**	mg/kg	0.0028	0.0094	1	P	07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Fluorene	<0.017	mg/kg	0.017	0.057	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**0.0321**	mg/kg	0.0035	0.015	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Naphthalene	**0.243**	mg/kg	0.050	0.16	1	P	07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Phenanthrene	**0.121**	mg/kg	0.0071	0.022	1	P	07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310
Pyrene	**0.0280**	mg/kg	0.0047 *	0.030	1		07/24/2017 13:30	07/27/2017 20:23	RED	EPA 8310

CT LAB Sample#: 894669 Sample Description: TD-SB33 (2-4)-071917 Sampled: 07/19/2017 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**97.6**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**7.4**	mg/kg	0.42	1.5	1		07/25/2017 09:30	07/25/2017 18:42	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894669 Sample Description: TD-SB33 (2-4)-071917 Sampled: 07/19/2017 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Barium	**30.0**	mg/kg	0.030	0.10	1		07/25/2017 09:30	07/25/2017 18:42	NAH	EPA 6010C
Cadmium	**0.28**	mg/kg	0.029	0.097	1		07/25/2017 09:30	07/25/2017 18:42	NAH	EPA 6010C
Chromium	**9.0**	mg/kg	0.86	2.9	1		07/25/2017 09:30	07/25/2017 18:42	NAH	EPA 6010C
Lead	**28.7**	mg/kg	0.18	0.60	1		07/25/2017 09:30	07/25/2017 18:42	NAH	EPA 6010C
Selenium	<1.0	mg/kg	1.0	3.3	1		07/25/2017 09:30	07/25/2017 18:42	NAH	EPA 6010C
Silver	**0.28**	mg/kg	0.20 *	0.67	1		07/25/2017 09:30	07/25/2017 18:42	NAH	EPA 6010C
Mercury	**0.017**	mg/kg	0.00022	0.00075	1		07/27/2017 07:30	07/27/2017 10:49	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<0.031	mg/kg	0.031	0.10	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
2-Methylnaphthalene	<0.036	mg/kg	0.036	0.12	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Acenaphthene	<0.030	mg/kg	0.030	0.098	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Acenaphthylene	<0.032	mg/kg	0.032	0.11	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Anthracene	<0.011	mg/kg	0.011	0.038	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Benzo(a)anthracene	**0.0197**	mg/kg	0.0018	0.0061	1	P	07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Benzo(a)pyrene	**0.0642**	mg/kg	0.0016	0.0065	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Benzo(b)fluoranthene	**0.0532**	mg/kg	0.0011	0.0053	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Benzo(g,h,i)perylene	**0.0522**	mg/kg	0.0027	0.012	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Benzo(k)fluoranthene	**0.0416**	mg/kg	0.0025	0.0081	1	P	07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Chrysene	**0.0596**	mg/kg	0.0051	0.018	1	P	07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Dibenzo(a,h)anthracene	**0.0685**	mg/kg	0.0062	0.026	1	P	07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Fluoranthene	**0.0317**	mg/kg	0.0025	0.0082	1	P	07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Fluorene	<0.014	mg/kg	0.014	0.049	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**0.0518**	mg/kg	0.0031	0.013	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Naphthalene	<0.043	mg/kg	0.043	0.14	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310
Phenanthrene	**0.0793**	mg/kg	0.0062	0.020	1	P	07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894669 Sample Description: TD-SB33 (2-4)-071917 Sampled: 07/19/2017 1505

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Pyrene	**0.0230**	mg/kg	0.0041 *	0.026	1		07/24/2017 13:30	07/27/2017 20:50	RED	EPA 8310

CT LAB Sample#: 894670 Sample Description: TD-SB45 (4-6)-071917 Sampled: 07/19/2017 1530

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**88.2**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**23.4**	mg/kg	0.59	2.1	1		07/25/2017 09:30	07/25/2017 19:08	NAH	EPA 6010C
Barium	**212**	mg/kg	0.042	0.14	1		07/25/2017 09:30	07/25/2017 19:08	NAH	EPA 6010C
Cadmium	**2.3**	mg/kg	0.041	0.14	1		07/25/2017 09:30	07/25/2017 19:08	NAH	EPA 6010C
Chromium	**64.1**	mg/kg	1.2	4.1	1		07/25/2017 09:30	07/25/2017 19:08	NAH	EPA 6010C
Lead	**375**	mg/kg	0.25	0.85	1		07/25/2017 09:30	07/25/2017 19:08	NAH	EPA 6010C
Selenium	<1.4	mg/kg	1.4	4.7	1		07/25/2017 09:30	07/25/2017 19:08	NAH	EPA 6010C
Silver	**0.96**	mg/kg	0.28	0.95	1		07/25/2017 09:30	07/25/2017 19:08	NAH	EPA 6010C
Mercury	**0.42**	mg/kg	0.00024	0.00082	1		07/27/2017 07:30	07/27/2017 10:51	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	**2.91**	mg/kg	1.7 *	5.6	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
2-Methylnaphthalene	**7.70**	mg/kg	2.0	6.6	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Acenaphthene	<1.7	mg/kg	1.6	5.3	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Acenaphthylene	<1.8	mg/kg	1.7	5.8	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Anthracene	<0.63	mg/kg	0.62	2.1	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Benzo(a)anthracene	**0.259**	mg/kg	0.10 *	0.33	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Benzo(a)pyrene	**0.495**	mg/kg	0.090	0.35	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894670 Sample Description: TD-SB45 (4-6)-071917 Sampled: 07/19/2017 1530

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Benzo(b)fluoranthene	**0.507**	mg/kg	0.062	0.29	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Benzo(g,h,i)perylene	**0.698**	mg/kg	0.15	0.68	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Benzo(k)fluoranthene	**0.383**	mg/kg	0.14 *	0.44	50	P	07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Chrysene	**0.462**	mg/kg	0.28 *	1.0	50	P	07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Dibenzo(a,h)anthracene	**1.17**	mg/kg	0.34 *	1.4	50	P	07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Fluoranthene	**0.569**	mg/kg	0.14	0.45	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Fluorene	<0.80	mg/kg	0.79	2.7	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**0.400**	mg/kg	0.17 *	0.73	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Naphthalene	**5.38**	mg/kg	2.4 *	7.8	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Phenanthrene	**0.754**	mg/kg	0.34 *	1.1	50	P	07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310
Pyrene	**0.411**	mg/kg	0.23 *	1.4	50		07/24/2017 13:30	07/27/2017 21:16	RED	EPA 8310

CT LAB Sample#: 894671 Sample Description: TD-SB43 (2-4)-071917 Sampled: 07/19/2017 1555

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**79.9**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**32.5**	mg/kg	0.54	1.9	1		07/25/2017 09:30	07/25/2017 19:15	NAH	EPA 6010C
Barium	**451**	mg/kg	0.039	0.13	1		07/25/2017 09:30	07/25/2017 19:15	NAH	EPA 6010C
Cadmium	**3.7**	mg/kg	0.038	0.13	1		07/25/2017 09:30	07/25/2017 19:15	NAH	EPA 6010C
Chromium	**59.2**	mg/kg	1.1	3.7	1		07/25/2017 09:30	07/25/2017 19:15	NAH	EPA 6010C
Lead	**460**	mg/kg	0.23	0.78	1		07/25/2017 09:30	07/25/2017 19:15	NAH	EPA 6010C
Selenium	<1.3	mg/kg	1.3	4.3	1		07/25/2017 09:30	07/25/2017 19:15	NAH	EPA 6010C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894671 Sample Description: TD-SB43 (2-4)-071917 Sampled: 07/19/2017 1555

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Silver	**1.9**	mg/kg	0.25	0.87	1		07/25/2017 09:30	07/25/2017 19:15	NAH	EPA 6010C
Mercury	**0.096**	mg/kg	0.00027	0.00093	1		07/27/2017 07:30	07/27/2017 10:58	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<1.9	mg/kg	1.9	6.1	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
2-Methylnaphthalene	<2.2	mg/kg	2.2	7.3	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Acenaphthene	<1.8	mg/kg	1.8	5.9	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Acenaphthylene	<2.0	mg/kg	1.9	6.4	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Anthracene	<0.69	mg/kg	0.68	2.3	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Benzo(a)anthracene	**1.00**	mg/kg	0.11	0.37	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Benzo(a)pyrene	**3.04**	mg/kg	0.099	0.39	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Benzo(b)fluoranthene	**3.28**	mg/kg	0.068	0.32	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Benzo(g,h,i)perylene	**3.26**	mg/kg	0.16	0.74	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Benzo(k)fluoranthene	**1.16**	mg/kg	0.15	0.49	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Chrysene	**1.57**	mg/kg	0.31	1.1	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Dibenzo(a,h)anthracene	**3.78**	mg/kg	0.37	1.6	50	P	07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Fluoranthene	**1.99**	mg/kg	0.15	0.50	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Fluorene	<0.88	mg/kg	0.87	3.0	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**4.69**	mg/kg	0.19	0.81	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Naphthalene	<2.7	mg/kg	2.6	8.6	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Phenanthrene	**1.43**	mg/kg	0.37	1.2	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310
Pyrene	**1.74**	mg/kg	0.25	1.6	50		07/24/2017 13:30	07/27/2017 21:43	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894672 Sample Description: TD-SB42 (4-6)-071917 Sampled: 07/19/2017 1630

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**79.1**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**13.2**	mg/kg	0.62	2.2	1		07/25/2017 09:30	07/25/2017 19:21	NAH	EPA 6010C
Barium	**99.7**	mg/kg	0.045	0.15	1		07/25/2017 09:30	07/25/2017 19:21	NAH	EPA 6010C
Cadmium	**0.67**	mg/kg	0.044	0.15	1		07/25/2017 09:30	07/25/2017 19:21	NAH	EPA 6010C
Chromium	**28.0**	mg/kg	1.3	4.3	1		07/25/2017 09:30	07/25/2017 19:21	NAH	EPA 6010C
Lead	**164**	mg/kg	0.27	0.90	1		07/25/2017 09:30	07/25/2017 19:21	NAH	EPA 6010C
Selenium	**3.3**	mg/kg	1.5 *	5.0	1		07/25/2017 09:30	07/25/2017 19:21	NAH	EPA 6010C
Silver	**0.55**	mg/kg	0.29 *	1.0	1		07/25/2017 09:30	07/25/2017 19:21	NAH	EPA 6010C
Mercury	**0.13**	mg/kg	0.00029	0.00098	1		07/27/2017 07:30	07/27/2017 11:00	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	<0.38	mg/kg	0.38	1.3	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
2-Methylnaphthalene	**0.694**	mg/kg	0.44 *	1.5	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Acenaphthene	<0.37	mg/kg	0.37	1.2	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Acenaphthylene	<0.39	mg/kg	0.39	1.3	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Anthracene	<0.14	mg/kg	0.14	0.47	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Benzo(a)anthracene	**0.139**	mg/kg	0.023	0.075	10	P	07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Benzo(a)pyrene	**0.147**	mg/kg	0.020	0.080	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Benzo(b)fluoranthene	**0.213**	mg/kg	0.014	0.066	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Benzo(g,h,i)perylene	**0.284**	mg/kg	0.033	0.15	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Benzo(k)fluoranthene	**0.106**	mg/kg	0.030	0.10	10	P	07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Chrysene	**0.186**	mg/kg	0.063 *	0.23	10	P	07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Dibenzo(a,h)anthracene	**0.266**	mg/kg	0.076 *	0.32	10	P	07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894672 Sample Description: TD-SB42 (4-6)-071917 Sampled: 07/19/2017 1630

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Fluoranthene	**0.518**	mg/kg	0.030	0.10	10	P	07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Fluorene	<0.18	mg/kg	0.18	0.61	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**0.163**	mg/kg	0.038	0.16	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Naphthalene	<0.53	mg/kg	0.53	1.8	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Phenanthrene	**0.343**	mg/kg	0.076	0.24	10		07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310
Pyrene	**0.979**	mg/kg	0.051	0.32	10	P	07/24/2017 13:30	07/27/2017 22:09	RED	EPA 8310

CT LAB Sample#: 894674 Sample Description: TD-SB41 (2-6)-071917 Sampled: 07/19/2017 1700

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Solids, Percent	**93.8**	%	0.1	0.1	1			07/25/2017 10:58	JAS	EPA 8000C
Metals Results										
Arsenic	**14.9**	mg/kg	0.50	1.8	1		07/25/2017 09:30	07/25/2017 19:27	NAH	EPA 6010C
Barium	**62.1**	mg/kg	0.036	0.12	1		07/25/2017 09:30	07/25/2017 19:27	NAH	EPA 6010C
Cadmium	**2.1**	mg/kg	0.035	0.12	1		07/25/2017 09:30	07/25/2017 19:27	NAH	EPA 6010C
Chromium	**15.0**	mg/kg	1.0	3.5	1		07/25/2017 09:30	07/25/2017 19:27	NAH	EPA 6010C
Lead	**328**	mg/kg	0.22	0.73	1		07/25/2017 09:30	07/25/2017 19:27	NAH	EPA 6010C
Selenium	<1.2	mg/kg	1.2	4.0	1		07/25/2017 09:30	07/25/2017 19:27	NAH	EPA 6010C
Silver	**0.48**	mg/kg	0.24 *	0.81	1		07/25/2017 09:30	07/25/2017 19:27	NAH	EPA 6010C
Mercury	**0.062**	mg/kg	0.00022	0.00076	1		07/27/2017 07:30	07/27/2017 11:02	LJF	EPA 7471B
Organic Results										
1-Methylnaphthalene	**1.44**	mg/kg	0.32	1.1	10	P	07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
2-Methylnaphthalene	**1.55**	mg/kg	0.37	1.3	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894674 Sample Description: TD-SB41 (2-6)-071917 Sampled: 07/19/2017 1700

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Acenaphthene	<0.31	mg/kg	0.31	1.0	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Acenaphthylene	<0.33	mg/kg	0.33	1.1	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Anthracene	**2.32**	mg/kg	0.12	0.39	10	P	07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Benzo(a)anthracene	**0.399**	mg/kg	0.019	0.063	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Benzo(a)pyrene	**0.520**	mg/kg	0.017	0.067	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Benzo(b)fluoranthene	**0.653**	mg/kg	0.012	0.055	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Benzo(g,h,i)perylene	**0.607**	mg/kg	0.028	0.13	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Benzo(k)fluoranthene	**0.260**	mg/kg	0.026	0.084	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Chrysene	**0.534**	mg/kg	0.053	0.19	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Dibenzo(a,h)anthracene	**0.422**	mg/kg	0.064	0.27	10	P	07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Fluoranthene	**1.07**	mg/kg	0.026	0.085	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Fluorene	**0.169**	mg/kg	0.15 *	0.51	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	**0.557**	mg/kg	0.032	0.14	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Naphthalene	<0.45	mg/kg	0.45	1.5	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Phenanthrene	**0.767**	mg/kg	0.064	0.20	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310
Pyrene	**0.485**	mg/kg	0.043	0.27	10		07/24/2017 13:30	07/27/2017 22:35	RED	EPA 8310

CT LAB Sample#: 894675 Sample Description: METHANOL BLANK Sampled: 07/19/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.028	mg/kg	0.028	0.092	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.024	mg/kg	0.024	0.081	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.022	mg/kg	0.022	0.072	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894675 Sample Description: METHANOL BLANK Sampled: 07/19/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1,2-Trichloroethane	<0.016	mg/kg	0.016	0.052	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,1-Dichloroethane	<0.025	mg/kg	0.025	0.084	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,1-Dichloroethene	<0.026	mg/kg	0.026	0.086	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,1-Dichloropropene	<0.011	mg/kg	0.011	0.037	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.022	mg/kg	0.022	0.072	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.022	mg/kg	0.022	0.073	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.030	mg/kg	0.030	0.11	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.026	mg/kg	0.026	0.087	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.040	mg/kg	0.040	0.13	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,2-Dibromoethane	<0.023	mg/kg	0.023	0.077	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.029	mg/kg	0.029	0.095	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,2-Dichloroethane	<0.023	mg/kg	0.023	0.078	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,2-Dichloropropane	<0.012	mg/kg	0.012	0.040	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.022	mg/kg	0.022	0.074	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.027	mg/kg	0.027	0.091	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	mg/kg	0.030	0.10	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.027	mg/kg	0.027	0.091	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
2,2-Dichloropropane	<0.018	mg/kg	0.018	0.061	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
2-Butanone	<0.090	mg/kg	0.090	0.30	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
2-Chlorotoluene	<0.026	mg/kg	0.026	0.087	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
2-Hexanone	<0.11	mg/kg	0.11	0.37	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
4-Chlorotoluene	<0.026	mg/kg	0.026	0.086	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.070	mg/kg	0.070	0.22	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Acetone	<0.28	mg/kg	0.28	0.95	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Benzene	<0.0050	mg/kg	0.0050	0.017	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894675 Sample Description: METHANOL BLANK Sampled: 07/19/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Bromobenzene	<0.030	mg/kg	0.030	0.11	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Bromochloromethane	<0.010	mg/kg	0.010	0.034	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Bromodichloromethane	<0.016	mg/kg	0.016	0.053	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Bromoform	<0.018	mg/kg	0.018	0.060	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Bromomethane	<0.040	mg/kg	0.040	0.14	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Carbon disulfide	<0.080	mg/kg	0.080	0.26	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Carbon tetrachloride	<0.022	mg/kg	0.022	0.074	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Chlorobenzene	<0.023	mg/kg	0.023	0.078	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Chloroethane	<0.060	mg/kg	0.060	0.21	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Chloroform	<0.021	mg/kg	0.021	0.069	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Chloromethane	<0.050	mg/kg	0.050	0.17	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.027	mg/kg	0.027	0.090	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.019	mg/kg	0.019	0.062	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Dibromochloromethane	<0.018	mg/kg	0.018	0.061	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Dibromomethane	<0.012	mg/kg	0.012	0.039	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Dichlorodifluoromethane	<0.040	mg/kg	0.040	0.14	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Diisopropyl ether	<0.030	mg/kg	0.030	0.10	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Ethylbenzene	<0.021	mg/kg	0.021	0.070	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Hexachlorobutadiene	<0.028	mg/kg	0.028	0.094	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Isopropylbenzene	<0.025	mg/kg	0.025	0.083	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
m & p-Xylene	<0.027	mg/kg	0.027	0.089	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Methyl tert-butyl ether	<0.024	mg/kg	0.024	0.081	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Methylene chloride	<0.030	mg/kg	0.030	0.10	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
n-Butylbenzene	<0.026	mg/kg	0.026	0.086	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
n-Propylbenzene	<0.026	mg/kg	0.026	0.085	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB Sample#: 894675 Sample Description: METHANOL BLANK Sampled: 07/19/2017

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Naphthalene	<0.029	mg/kg	0.029	0.097	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
o-Xylene	<0.024	mg/kg	0.024	0.080	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
p-Isopropyltoluene	<0.022	mg/kg	0.022	0.073	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
sec-Butylbenzene	<0.028	mg/kg	0.028	0.092	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Styrene	<0.029	mg/kg	0.029	0.096	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
tert-Butylbenzene	<0.025	mg/kg	0.025	0.082	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Tetrachloroethene	<0.013	mg/kg	0.013	0.043	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Tetrahydrofuran	**0.56**	mg/kg	0.14	0.46	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Toluene	<0.013	mg/kg	0.013	0.044	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.010	mg/kg	0.010	0.033	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.023	mg/kg	0.023	0.075	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Trichloroethene	<0.015	mg/kg	0.015	0.049	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Trichlorofluoromethane	<0.040	mg/kg	0.040	0.13	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Vinyl acetate	<0.12	mg/kg	0.12	0.40	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C
Vinyl chloride	<0.010	mg/kg	0.010	0.032	1		07/24/2017 08:42	07/24/2017 12:02	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes: * Indicates a value in between the LOD (limit of detection) and the LOQ (limit of quantitation). All LOD/LOQs are adjusted to reflect dilution and also any differences in the sample weight / volume as compared to standard amounts.

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	BOD incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002
Pennsylvania NELAP Lab ID# 68-04201, # 008

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QC SUMMARY REPORT

TETRA TECH **Project Name: FORMER TELEDYNE SITE**

SDG #: 0 **Folder #: 129150** **Project Number: 103X90260003S05161200**

Duplicate

Analytical Run #:	140197	Analysis Date:	07/25/2017	Prep Batch #:		Matrix:	SOIL
CTLab #:	896925	Analysis Time:	10:58	Prep Date/Time:		Method:	SW8000C
Parent Sample #:	894666	Analyst:	JAS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Solids, Percent	80.8	%	80.0					1	8

Duplicate

Analytical Run #:	140242	Analysis Date:	07/25/2017	Prep Batch #:		Matrix:	SOIL
CTLab #:	896890	Analysis Time:	09:31	Prep Date/Time:		Method:	A2974-87
Parent Sample #:	894661	Analyst:	JAS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Percent Moisture	82.1	%	83.0					1	20

Duplicate

Analytical Run #:	140319	Analysis Date:	07/25/2017	Prep Batch #:		Matrix:	SOIL
CTLab #:	897188	Analysis Time:	09:31	Prep Date/Time:		Method:	SW8000C
Parent Sample #:	894661	Analyst:	JAS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Solids, Percent	82.1	%	83.0					1	8

Lab Control Spike Soil

Analytical Run #:	140269	Analysis Date:	07/25/2017	Prep Batch #:	63326	Matrix:	SOLID
CTLab #:	896155	Analysis Time:	16:39	Prep Date/Time:	07/25/2017 09:30	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	LJF		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Arsenic	360	mg/kg			400	90	80 --- 109		
Barium	398	mg/kg			400	100	80 --- 120		
Cadmium	9.0	mg/kg			10.0	90	80 --- 120		
Chromium	37.8	mg/kg			40.0	94	83 --- 116		
Lead	93.3	mg/kg			100	93	80 --- 120		
Selenium	338	mg/kg			400	84	71 --- 106		
Silver	8.8	mg/kg			10.0	88	80 --- 120		

Method Blank Soil

Analytical Run #:	140269	Analysis Date:	07/25/2017	Prep Batch #:	63326	Matrix:	SOLID
CTLab #:	896154	Analysis Time:	16:45	Prep Date/Time:	07/25/2017 09:30	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	LJF		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Arsenic	0.7	mg/kg		U	0		0.7		
Barium	0.051	mg/kg			0		0.05		
Cadmium	0.049	mg/kg		U	0		0.049		
Chromium	1.45	mg/kg		U	0		1.45		
Lead	0.30	mg/kg		U	0		0.30		
Selenium	1.7	mg/kg		U	0		1.7		
Silver	0.33	mg/kg		U	0		0.33		

TETRA TECH **Project Name: FORMER TELEDYNE SITE**

SDG #: 0 **Folder #: 129150** **Project Number: 103X90260003S05161200**

Matrix Spike Duplicate Soil

Analytical Run #:	140269	Analysis Date:	07/25/2017	Prep Batch #:	63326	Matrix:	SOIL
CTLab #:	896159	Analysis Time:	18:16	Prep Date/Time:	07/25/2017 09:30	Method:	SW6010
Parent Sample #:	896158	Analyst:	NAH	Prep Analyst:	LJF		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Arsenic	307	mg/kg	5.5		342	88	75 --- 114	0	20
Barium	517	mg/kg	134		342	112	75 --- 122	4	20
Cadmium	7.4	mg/kg	0.37		8.6	82	75 --- 118	0	20
Chromium	51.2	mg/kg	20.8		34.2	89	75 --- 125	6	20
Lead	266	mg/kg	169		85.6	113	75 --- 125	82	20
Selenium	271	mg/kg	3.9		342	78	75 --- 113	1	20
Silver	8.7	mg/kg	1.8		8.6	80	75 --- 116	2	20

Matrix Spike Soil

Analytical Run #:	140269	Analysis Date:	07/25/2017	Prep Batch #:	63326	Matrix:	SOIL
CTLab #:	896158	Analysis Time:	18:10	Prep Date/Time:	07/25/2017 09:30	Method:	SW6010
Parent Sample #:	894666	Analyst:	NAH	Prep Analyst:	LJF		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Arsenic	291	mg/kg	5.5		325	88	75 --- 114		
Barium	472	mg/kg	134		325	104	75 --- 122		
Cadmium	7.0	mg/kg	0.37		8.1	82	75 --- 118		
Chromium	45.7	mg/kg	20.8		32.5	77	75 --- 125		
Lead	602	mg/kg	169		81.2	533	75 --- 125		
Selenium	256	mg/kg	3.9		325	78	75 --- 113		
Silver	8.1	mg/kg	1.8		8.1	78	75 --- 116		

Lab Control Spike Soil

Analytical Run #:	140363	Analysis Date:	07/27/2017	Prep Batch #:	63339	Matrix:	SOLID
CTLab #:	896583	Analysis Time:	09:53	Prep Date/Time:	07/27/2017 07:30	Method:	SW7471B
Parent Sample #:		Analyst:	LJF	Prep Analyst:	LJF		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Mercury	0.073	mg/kg			0.083	88	69 --- 125		20

Method Blank Soil

Analytical Run #:	140363	Analysis Date:	07/27/2017	Prep Batch #:	63339	Matrix:	SOLID
CTLab #:	896582	Analysis Time:	09:55	Prep Date/Time:	07/27/2017 07:30	Method:	SW7471B
Parent Sample #:		Analyst:	LJF	Prep Analyst:	LJF		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Mercury	0.0005	mg/kg		U	0		.0005		

Matrix Spike Duplicate Soil

Analytical Run #:	140363	Analysis Date:	07/27/2017	Prep Batch #:	63339	Matrix:	SOIL
CTLab #:	896588	Analysis Time:	12:22	Prep Date/Time:	07/27/2017 07:30	Method:	SW7471B
Parent Sample #:	896587	Analyst:	LJF	Prep Analyst:	LJF		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Mercury	1.1	mg/kg	1.0	M	0.11	91	51 --- 133	36	28

Matrix Spike Soil

Analytical Run #:	140363	Analysis Date:	07/27/2017	Prep Batch #:	63339	Matrix:	SOIL
CTLab #:	896587	Analysis Time:	12:19	Prep Date/Time:	07/27/2017 07:30	Method:	SW7471B
Parent Sample #:	894666	Analyst:	LJF	Prep Analyst:	LJF		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Mercury	0.71	mg/kg	1.0	M	0.10	0	51 --- 133		

Lab Control Spike Soil

Analytical Run #:	140207	Analysis Date:	07/24/2017	Prep Batch #:	63312	Matrix:	SOLID
CTLab #:	895530	Analysis Time:	10:36	Prep Date/Time:	07/24/2017 08:42	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:	RLD		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.520	mg/kg			0.500	104	76 --- 121		
1,1,1-Trichloroethane	0.548	mg/kg			0.500	110	79 --- 121		
1,1,2,2-Tetrachloroethane	0.494	mg/kg			0.500	99	75 --- 124		
1,1,2-Trichloroethane	0.510	mg/kg			0.500	102	78 --- 114		
1,1-Dichloroethane	0.515	mg/kg			0.500	103	77 --- 118		
1,1-Dichloroethene	0.513	mg/kg			0.500	103	85 --- 117		
1,1-Dichloropropene	0.516	mg/kg			0.500	103	73 --- 122		
1,2 Dichloroethane-d4	103	% Recovery			100	103	78 --- 118		
1,2,3-Trichlorobenzene	0.469	mg/kg			0.500	94	73 --- 129		
1,2,3-Trichloropropane	0.502	mg/kg			0.500	100	73 --- 123		
1,2,4-Trichlorobenzene	0.479	mg/kg			0.500	96	74 --- 125		
1,2,4-Trimethylbenzene	0.501	mg/kg			0.500	100	83 --- 120		
1,2-Dibromo-3-chloropropane	0.455	mg/kg			0.500	91	62 --- 136		
1,2-Dibromoethane	0.540	mg/kg			0.500	108	81 --- 118		
1,2-Dichlorobenzene	0.496	mg/kg			0.500	99	81 --- 114		
1,2-Dichloroethane	0.556	mg/kg			0.500	111	76 --- 117		
1,2-Dichloropropane	0.493	mg/kg			0.500	99	75 --- 119		
1,3,5-Trimethylbenzene	0.510	mg/kg			0.500	102	83 --- 121		
1,3-Dichlorobenzene	0.502	mg/kg			0.500	100	82 --- 115		
1,3-Dichloropropane	0.531	mg/kg			0.500	106	80 --- 116		
1,4-Dichlorobenzene	0.498	mg/kg			0.500	100	80 --- 115		
2,2-Dichloropropane	0.606	mg/kg			0.500	121	74 --- 128		
2-Butanone	5.13	mg/kg			5.00	103	74 --- 126		
2-Chlorotoluene	0.486	mg/kg			0.500	97	79 --- 119		
2-Hexanone	5.16	mg/kg			5.00	103	77 --- 128		
4-Chlorotoluene	0.496	mg/kg			0.500	99	80 --- 121		
4-Methyl-2-pentanone	5.37	mg/kg			5.00	107	79 --- 123		
Acetone	4.53	mg/kg			5.00	91	41 --- 171		
Benzene	0.510	mg/kg			0.500	102	84 --- 116		
Bromobenzene	0.511	mg/kg			0.500	102	81 --- 114		
Bromochloromethane	0.573	mg/kg			0.500	115	80 --- 117		
Bromodichloromethane	0.540	mg/kg			0.500	108	73 --- 123		
Bromofluorobenzene	97.0	% Recovery			100	97.0	94 --- 106		
Bromoform	0.509	mg/kg			0.500	102	66 --- 131		
Bromomethane	0.476	mg/kg			0.500	95	41 --- 195		
Carbon disulfide	1.03	mg/kg			1.00	103	75 --- 125		
Carbon tetrachloride	0.560	mg/kg			0.500	112	73 --- 132		
Chlorobenzene	0.514	mg/kg			0.500	103	80 --- 115		
Chloroethane	0.409	mg/kg			0.500	82	28 --- 197		
Chloroform	0.535	mg/kg			0.500	107	80 --- 116		
Chloromethane	0.471	mg/kg			0.500	94	73 --- 118		
cis-1,2-Dichloroethene	0.520	mg/kg			0.500	104	84 --- 114		

Lab Control Spike Soil

Analytical Run #:	140207	Analysis Date:	07/24/2017	Prep Batch #:	63312	Matrix:	SOLID
CTLab #:	895530	Analysis Time:	10:36	Prep Date/Time:	07/24/2017 08:42	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:	RLD		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.547	mg/kg			0.500	109	79 --- 118		
d8-Toluene	102	% Recovery			100	102	82 --- 124		
Dibromochloromethane	0.538	mg/kg			0.500	108	73 --- 124		
Dibromofluoromethane	108	% Recovery		S	100	108	93 --- 107		
Dibromomethane	0.561	mg/kg			0.500	112	76 --- 119		
Dichlorodifluoromethane	0.476	mg/kg			0.500	95	78 --- 123		
Diisopropyl ether	0.543	mg/kg			0.500	109	76 --- 124		
Ethylbenzene	0.507	mg/kg			0.500	101	85 --- 117		
Hexachlorobutadiene	0.455	mg/kg			0.500	91	76 --- 123		
Isopropylbenzene	0.520	mg/kg			0.500	104	80 --- 121		
m & p-Xylene	1.04	mg/kg			1.00	104	84 --- 118		
Methyl tert-butyl ether	0.543	mg/kg			0.500	109	85 --- 115		
Methylene chloride	0.497	mg/kg			0.500	99	77 --- 121		
n-Butylbenzene	0.524	mg/kg			0.500	105	77 --- 122		
n-Propylbenzene	0.512	mg/kg			0.500	102	78 --- 124		
Naphthalene	0.485	mg/kg			0.500	97	72 --- 135		
o-Xylene	0.508	mg/kg			0.500	102	86 --- 114		
p-Isopropyltoluene	0.509	mg/kg			0.500	102	80 --- 122		
sec-Butylbenzene	0.509	mg/kg			0.500	102	77 --- 125		
Styrene	0.505	mg/kg			0.500	101	81 --- 118		
tert-Butylbenzene	0.487	mg/kg			0.500	97	78 --- 122		
Tetrachloroethene	0.510	mg/kg			0.500	102	86 --- 114		
Tetrahydrofuran	5.55	mg/kg			5.00	111	72 --- 123		
Toluene	0.512	mg/kg			0.500	102	84 --- 114		
trans-1,2-Dichloroethene	0.530	mg/kg			0.500	106	79 --- 121		
trans-1,3-Dichloropropene	0.569	mg/kg			0.500	114	75 --- 121		
Trichloroethene	0.524	mg/kg			0.500	105	80 --- 118		
Trichlorofluoromethane	0.560	mg/kg			0.500	112	51 --- 146		
Vinyl Acetate	9.67	mg/kg			5.00	193	65 --- 141		
Vinyl chloride	0.510	mg/kg			0.500	102	75 --- 123		

Method Blank Soil

Analytical Run #:	140207	Analysis Date:	07/24/2017	Prep Batch #:	63312	Matrix:	SOLID
CTLab #:	895529	Analysis Time:	11:33	Prep Date/Time:	07/24/2017 08:42	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:	RLD		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.028	mg/kg		U	0		0.028		
1,1,1-Trichloroethane	0.024	mg/kg		U	0		0.024		
1,1,2,2-Tetrachloroethane	0.022	mg/kg		U	0		0.022		
1,1,2-Trichloroethane	0.016	mg/kg		U	0		0.016		
1,1-Dichloroethane	0.025	mg/kg		U	0		0.025		
1,1-Dichloroethene	0.026	mg/kg		U	0		0.026		
1,1-Dichloropropene	0.011	mg/kg		U	0		0.011		
1,2 Dichloroethane-d4	105	% Recovery			100	105	78 --- 118		
1,2,3-Trichlorobenzene	0.022	mg/kg		U	0		0.022		
1,2,3-Trichloropropane	0.022	mg/kg		U	0		0.022		
1,2,4-Trichlorobenzene	0.03	mg/kg		U	0		0.03		
1,2,4-Trimethylbenzene	0.026	mg/kg		U	0		0.026		
1,2-Dibromo-3-chloropropane	0.04	mg/kg		U	0		0.04		
1,2-Dibromoethane	0.023	mg/kg		U	0		0.023		
1,2-Dichlorobenzene	0.029	mg/kg		U	0		0.029		
1,2-Dichloroethane	0.023	mg/kg		U	0		0.023		
1,2-Dichloropropane	0.012	mg/kg		U	0		0.012		
1,3,5-Trimethylbenzene	0.022	mg/kg		U	0		0.022		
1,3-Dichlorobenzene	0.027	mg/kg		U	0		0.027		
1,3-Dichloropropane	0.030	mg/kg		U	0		0.030		
1,4-Dichlorobenzene	0.027	mg/kg		U	0		0.027		
2,2-Dichloropropane	0.018	mg/kg		U	0		0.018		
2-Butanone	0.09	mg/kg		U	0		0.09		
2-Chlorotoluene	0.026	mg/kg		U	0		0.026		
2-Hexanone	0.11	mg/kg		U	0		0.11		
4-Chlorotoluene	0.026	mg/kg		U	0		0.026		
4-Methyl-2-pentanone	0.07	mg/kg		U	0		0.07		
Acetone	0.28	mg/kg		U	0		0.28		
Benzene	0.005	mg/kg		U	0		0.005		
Bromobenzene	0.03	mg/kg		U	0		0.03		
Bromochloromethane	0.010	mg/kg		U	0		0.010		
Bromodichloromethane	0.016	mg/kg		U	0		0.016		
Bromofluorobenzene	99.0	% Recovery			100	99.0	83 --- 132		
Bromoform	0.018	mg/kg		U	0		0.018		
Bromomethane	0.04	mg/kg		U	0		0.04		
Carbon disulfide	0.08	mg/kg		U	0		0.08		
Carbon tetrachloride	0.022	mg/kg		U	0		0.022		
Chlorobenzene	0.023	mg/kg		U	0		0.023		
Chloroethane	0.06	mg/kg		U	0		0.06		
Chloroform	0.021	mg/kg		U	0		0.021		
Chloromethane	0.05	mg/kg		U	0		0.05		
cis-1,2-Dichloroethene	0.027	mg/kg		U	0		0.027		

Method Blank Soil

Analytical Run #:	140207	Analysis Date:	07/24/2017	Prep Batch #:	63312	Matrix:	SOLID
CTLab #:	895529	Analysis Time:	11:33	Prep Date/Time:	07/24/2017 08:42	Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:	RLD		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.019	mg/kg		U	0		0.019		
d8-Toluene	102	% Recovery			100	102	82 --- 124		
Dibromochloromethane	0.018	mg/kg		U	0		0.018		
Dibromofluoromethane	106	% Recovery			100	106	79 --- 119		
Dibromomethane	0.012	mg/kg		U	0		0.012		
Dichlorodifluoromethane	0.04	mg/kg		U	0		0.04		
Diisopropyl ether	0.03	mg/kg		U	0		0.03		
Ethylbenzene	0.021	mg/kg		U	0		0.021		
Hexachlorobutadiene	0.028	mg/kg		U	0		0.028		
Isopropylbenzene	0.025	mg/kg		U	0		0.025		
m & p-Xylene	0.027	mg/kg		U	0		0.027		
Methyl tert-butyl ether	0.024	mg/kg		U	0		0.024		
Methylene chloride	0.03	mg/kg		U	0		0.03		
n-Butylbenzene	0.026	mg/kg		U	0		0.026		
n-Propylbenzene	0.026	mg/kg		U	0		0.026		
Naphthalene	0.029	mg/kg		U	0		0.029		
o-Xylene	0.024	mg/kg		U	0		0.024		
p-Isopropyltoluene	0.022	mg/kg		U	0		0.022		
sec-Butylbenzene	0.028	mg/kg		U	0		0.028		
Styrene	0.029	mg/kg		U	0		0.029		
tert-Butylbenzene	0.025	mg/kg		U	0		0.025		
Tetrachloroethene	0.013	mg/kg		U	0		0.013		
Tetrahydrofuran	0.775	mg/kg			0		0.14		
Toluene	0.013	mg/kg		U	0		0.013		
trans-1,2-Dichloroethene	0.010	mg/kg		U	0		0.010		
trans-1,3-Dichloropropene	0.023	mg/kg		U	0		0.023		
Trichloroethene	0.015	mg/kg		U	0		0.015		
Trichlorofluoromethane	0.04	mg/kg		U	0		0.04		
Vinyl Acetate	0.12	mg/kg		U	0		0.12		
Vinyl chloride	0.010	mg/kg		U	0		0.010		

Matrix Spike Duplicate Soil

Analytical Run #:	140207	Analysis Date:	07/24/2017	Prep Batch #:	63312	Matrix:	SOIL
CTLab #:	895533	Analysis Time:	20:53	Prep Date/Time:	07/24/2017 08:42	Method:	SW8260C
Parent Sample #:	895532	Analyst:	RLD	Prep Analyst:	RLD		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1,2-Tetrachloroethane	2.56	mg/kg	BDL		2.50	102	73	---	112	4	13
1,1,1-Trichloroethane	2.77	mg/kg	BDL		2.50	111	77	---	112	3	13
1,1,2,2-Tetrachloroethane	2.81	mg/kg	BDL		2.50	112	4	---	152	9	18
1,1,2-Trichloroethane	2.60	mg/kg	BDL		2.50	104	76	---	119	1	20
1,1-Dichloroethane	2.53	mg/kg	BDL		2.50	101	71	---	118	1	21
1,1-Dichloroethene	2.62	mg/kg	BDL		2.50	105	77	---	114	3	19
1,1-Dichloropropene	2.65	mg/kg	BDL		2.50	106	74	---	121	1	16
1,2 Dichloroethane-d4	104	% Recovery			100	104	80	---	117		
1,2,3-Trichlorobenzene	2.51	mg/kg	BDL		2.50	100	65	---	132	9	47
1,2,3-Trichloropropane	2.53	mg/kg	BDL		2.50	101	59	---	127	6	20
1,2,4-Trichlorobenzene	2.50	mg/kg	BDL		2.50	100	61	---	135	6	35
1,2,4-Trimethylbenzene	2.69	mg/kg	BDL		2.50	108	57	---	143	3	13
1,2-Dibromo-3-chloropropane	2.38	mg/kg	BDL		2.50	95	59	---	125	15	29
1,2-Dibromoethane	2.74	mg/kg	BDL		2.50	110	75	---	119	7	14
1,2-Dichlorobenzene	2.70	mg/kg	BDL		2.50	108	69	---	122	6	11
1,2-Dichloroethane	2.79	mg/kg	BDL		2.50	112	75	---	117	1	16
1,2-Dichloropropane	2.52	mg/kg	BDL		2.50	101	72	---	121	3	15
1,3,5-Trimethylbenzene	2.73	mg/kg	BDL		2.50	109	74	---	125	4	13
1,3-Dichlorobenzene	2.63	mg/kg	BDL		2.50	105	69	---	123	4	13
1,3-Dichloropropane	2.67	mg/kg	BDL		2.50	107	77	---	118	1	15
1,4-Dichlorobenzene	2.66	mg/kg	BDL		2.50	106	66	---	124	4	12
2,2-Dichloropropane	3.00	mg/kg	BDL		2.50	120	66	---	116	1	17
2-Butanone	26.3	mg/kg	BDL		25.0	105	65	---	133	12	24
2-Chlorotoluene	2.58	mg/kg	BDL		2.50	103	72	---	121	3	15
2-Hexanone	27.1	mg/kg	BDL		25.0	108	57	---	145	10	25
4-Chlorotoluene	2.64	mg/kg	BDL		2.50	106	70	---	124	2	14
4-Methyl-2-pentanone	28.0	mg/kg	BDL		25.0	112	67	---	133	8	21
Acetone	25.7	mg/kg	BDL		25.0	103	56	---	149	10	28
Benzene	2.58	mg/kg	BDL		2.50	103	82	---	115	1	24
Bromobenzene	2.64	mg/kg	BDL		2.50	106	75	---	119	3	14
Bromochloromethane	2.86	mg/kg	BDL		2.50	114	78	---	118	3	15
Bromodichloromethane	2.68	mg/kg	BDL		2.50	107	74	---	115	1	15
Bromofluorobenzene	98.0	% Recovery			100	98.0	92	---	106		
Bromoform	2.40	mg/kg	BDL		2.50	96	65	---	120	5	19
Bromomethane	2.40	mg/kg	BDL		2.50	96	12	---	218	2	30
Carbon disulfide	5.22	mg/kg	BDL		4.99	105	73	---	117	1	22
Carbon tetrachloride	2.64	mg/kg	BDL		2.50	106	71	---	118	1	13
Chlorobenzene	2.65	mg/kg	BDL		2.50	106	75	---	118	4	11
Chloroethane	1.96	mg/kg	BDL		2.50	78	36	---	175	2	34
Chloroform	2.67	mg/kg	BDL		2.50	107	77	---	111	0	13
Chloromethane	2.35	mg/kg	BDL		2.50	94	63	---	123	4	19
cis-1,2-Dichloroethene	2.93	mg/kg	BDL		2.50	117	79	---	113	2	13

Matrix Spike Duplicate Soil

Analytical Run #:	140207	Analysis Date:	07/24/2017	Prep Batch #:	63312	Matrix:	SOIL
CTLab #:	895533	Analysis Time:	20:53	Prep Date/Time:	07/24/2017 08:42	Method:	SW8260C
Parent Sample #:	895532	Analyst:	RLD	Prep Analyst:	RLD		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	2.64	mg/kg	BDL		2.50	106	78 --- 111	4	15
d8-Toluene	102	% Recovery			100	102	85 --- 122		
Dibromochloromethane	2.56	mg/kg	BDL		2.50	102	67 --- 117	4	14
Dibromofluoromethane	107	% Recovery			100	107	90 --- 107		
Dibromomethane	2.78	mg/kg	BDL		2.50	111	74 --- 120	2	16
Dichlorodifluoromethane	2.20	mg/kg	BDL		2.50	88	59 --- 131	2	16
Diisopropyl ether	2.85	mg/kg	BDL		2.50	114	66 --- 126	4	16
Ethylbenzene	2.63	mg/kg	BDL		2.50	105	79 --- 120	3	24
Hexachlorobutadiene	2.44	mg/kg	BDL		2.50	98	59 --- 127	8	23
Isopropylbenzene	2.65	mg/kg	BDL		2.50	106	73 --- 123	2	12
m & p-Xylene	5.32	mg/kg	BDL		4.99	107	73 --- 126	4	9
Methyl tert-butyl ether	2.84	mg/kg	BDL		2.50	114	83 --- 118	1	26
Methylene chloride	2.55	mg/kg	BDL		2.50	102	65 --- 126	1	24
n-Butylbenzene	2.69	mg/kg	BDL		2.50	108	64 --- 126	4	14
n-Propylbenzene	2.73	mg/kg	BDL		2.50	109	64 --- 129	3	14
Naphthalene	2.61	mg/kg	BDL		2.50	104	36 --- 168	12	44
o-Xylene	2.59	mg/kg	BDL		2.50	104	73 --- 124	1	24
p-Isopropyltoluene	2.70	mg/kg	BDL		2.50	108	70 --- 126	3	14
sec-Butylbenzene	2.72	mg/kg	BDL		2.50	109	67 --- 128	2	15
Styrene	2.61	mg/kg	BDL		2.50	104	78 --- 119	2	14
tert-Butylbenzene	2.66	mg/kg	BDL		2.50	106	73 --- 122	3	14
Tetrachloroethene	2.67	mg/kg	BDL		2.50	107	82 --- 113	2	13
Tetrahydrofuran	28.1	mg/kg	BDL		25.0	112	58 --- 131	10	24
Toluene	2.64	mg/kg	BDL		2.50	106	73 --- 122	1	24
trans-1,2-Dichloroethene	2.64	mg/kg	BDL		2.50	106	77 --- 114	1	22
trans-1,3-Dichloropropene	2.70	mg/kg	BDL		2.50	108	74 --- 112	1	16
Trichloroethene	14.0	mg/kg	4.50		2.50	380	53 --- 166	2	14
Trichlorofluoromethane	2.78	mg/kg	BDL		2.50	111	15 --- 178	1	24
Vinyl Acetate	49.7	mg/kg	BDL		25.0	199	29 --- 157	3	37
Vinyl chloride	2.51	mg/kg	BDL		2.50	100	70 --- 119	1	17

Matrix Spike Soil

Analytical Run #:	140207	Analysis Date:	07/24/2017	Prep Batch #:	63312	Matrix:	SOIL
CTLab #:	895532	Analysis Time:	20:25	Prep Date/Time:	07/24/2017 08:42	Method:	SW8260C
Parent Sample #:	894659	Analyst:	RLD	Prep Analyst:	RLD		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	2.47	mg/kg	BDL		2.50	99	73 --- 112		
1,1,1-Trichloroethane	2.69	mg/kg	BDL		2.50	108	77 --- 112		
1,1,2,2-Tetrachloroethane	2.58	mg/kg	BDL		2.50	103	4 --- 152		
1,1,2-Trichloroethane	2.62	mg/kg	BDL		2.50	105	76 --- 119		
1,1-Dichloroethane	2.56	mg/kg	BDL		2.50	102	71 --- 118		
1,1-Dichloroethene	2.55	mg/kg	BDL		2.50	102	77 --- 114		
1,1-Dichloropropene	2.61	mg/kg	BDL		2.50	104	74 --- 121		
1,2 Dichloroethane-d4	100	% Recovery			100	100	80 --- 117		
1,2,3-Trichlorobenzene	2.30	mg/kg	BDL		2.50	92	65 --- 132		
1,2,3-Trichloropropane	2.37	mg/kg	BDL		2.50	95	59 --- 127		
1,2,4-Trichlorobenzene	2.35	mg/kg	BDL		2.50	94	61 --- 135		
1,2,4-Trimethylbenzene	2.61	mg/kg	BDL		2.50	104	57 --- 143		
1,2-Dibromo-3-chloropropane	2.04	mg/kg	BDL		2.50	82	59 --- 125		
1,2-Dibromoethane	2.56	mg/kg	BDL		2.50	102	75 --- 119		
1,2-Dichlorobenzene	2.55	mg/kg	BDL		2.50	102	69 --- 122		
1,2-Dichloroethane	2.76	mg/kg	BDL		2.50	110	75 --- 117		
1,2-Dichloropropane	2.60	mg/kg	BDL		2.50	104	72 --- 121		
1,3,5-Trimethylbenzene	2.61	mg/kg	BDL		2.50	104	74 --- 125		
1,3-Dichlorobenzene	2.53	mg/kg	BDL		2.50	101	69 --- 123		
1,3-Dichloropropane	2.65	mg/kg	BDL		2.50	106	77 --- 118		
1,4-Dichlorobenzene	2.55	mg/kg	BDL		2.50	102	66 --- 124		
2,2-Dichloropropane	2.98	mg/kg	BDL		2.50	119	66 --- 116		
2-Butanone	23.2	mg/kg	BDL		25.0	93	65 --- 133		
2-Chlorotoluene	2.49	mg/kg	BDL		2.50	100	72 --- 121		
2-Hexanone	24.5	mg/kg	BDL		25.0	98	57 --- 145		
4-Chlorotoluene	2.58	mg/kg	BDL		2.50	103	70 --- 124		
4-Methyl-2-pentanone	25.9	mg/kg	BDL		25.0	104	67 --- 133		
Acetone	23.2	mg/kg	BDL		25.0	93	56 --- 149		
Benzene	2.55	mg/kg	BDL		2.50	102	82 --- 115		
Bromobenzene	2.57	mg/kg	BDL		2.50	103	75 --- 119		
Bromochloromethane	2.76	mg/kg	BDL		2.50	110	78 --- 118		
Bromodichloromethane	2.65	mg/kg	BDL		2.50	106	74 --- 115		
Bromofluorobenzene	100	% Recovery			100	100	92 --- 106		
Bromoform	2.28	mg/kg	BDL		2.50	91	65 --- 120		
Bromomethane	2.45	mg/kg	BDL		2.50	98	12 --- 218		
Carbon disulfide	5.18	mg/kg	BDL		4.99	104	73 --- 117		
Carbon tetrachloride	2.68	mg/kg	BDL		2.50	107	71 --- 118		
Chlorobenzene	2.54	mg/kg	BDL		2.50	102	75 --- 118		
Chloroethane	2.00	mg/kg	BDL		2.50	80	36 --- 175		
Chloroform	2.67	mg/kg	BDL		2.50	107	77 --- 111		
Chloromethane	2.25	mg/kg	BDL		2.50	90	63 --- 123		
cis-1,2-Dichloroethene	2.87	mg/kg	0.102		2.50	111	79 --- 113		

TETRA TECH **Project Name: FORMER TELEDYNE SITE**

SDG #: 0 **Folder #: 129150** **Project Number: 103X90260003S05161200**

Matrix Spike Soil

Analytical Run #:	140207	Analysis Date:	07/24/2017	Prep Batch #:	63312	Matrix:	SOIL
CTLab #:	895532	Analysis Time:	20:25	Prep Date/Time:	07/24/2017 08:42	Method:	SW8260C
Parent Sample #:	894659	Analyst:	RLD	Prep Analyst:	RLD		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	2.55	mg/kg	BDL		2.50	102	78 --- 111		
d8-Toluene	102	% Recovery			100	102	85 --- 122		
Dibromochloromethane	2.46	mg/kg	BDL		2.50	98	67 --- 117		
Dibromofluoromethane	109	% Recovery		S	100	109	90 --- 107		
Dibromomethane	2.72	mg/kg	BDL		2.50	109	74 --- 120		
Dichlorodifluoromethane	2.23	mg/kg	BDL		2.50	89	59 --- 131		
Diisopropyl ether	2.74	mg/kg	BDL		2.50	110	66 --- 126		
Ethylbenzene	2.55	mg/kg	BDL		2.50	102	79 --- 120		
Hexachlorobutadiene	2.26	mg/kg	BDL		2.50	90	59 --- 127		
Isopropylbenzene	2.59	mg/kg	BDL		2.50	104	73 --- 123		
m & p-Xylene	5.14	mg/kg	BDL		4.99	103	73 --- 126		
Methyl tert-butyl ether	2.82	mg/kg	BDL		2.50	113	83 --- 118		
Methylene chloride	2.51	mg/kg	BDL		2.50	100	65 --- 126		
n-Butylbenzene	2.57	mg/kg	BDL		2.50	103	64 --- 126		
n-Propylbenzene	2.64	mg/kg	BDL		2.50	106	64 --- 129		
Naphthalene	2.30	mg/kg	BDL		2.50	92	36 --- 168		
o-Xylene	2.56	mg/kg	BDL		2.50	102	73 --- 124		
p-Isopropyltoluene	2.61	mg/kg	BDL		2.50	104	70 --- 126		
sec-Butylbenzene	2.67	mg/kg	BDL		2.50	107	67 --- 128		
Styrene	2.55	mg/kg	BDL		2.50	102	78 --- 119		
tert-Butylbenzene	2.59	mg/kg	BDL		2.50	104	73 --- 122		
Tetrachloroethene	2.61	mg/kg	0.0417		2.50	103	82 --- 113		
Tetrahydrofuran	25.5	mg/kg	0.575		25.0	100	58 --- 131		
Toluene	2.62	mg/kg	BDL		2.50	105	73 --- 122		
trans-1,2-Dichloroethene	2.67	mg/kg	BDL		2.50	107	77 --- 114		
trans-1,3-Dichloropropene	2.67	mg/kg	BDL		2.50	107	74 --- 112		
Trichloroethene	13.7	mg/kg	5.75		2.50	318	53 --- 166		
Trichlorofluoromethane	2.75	mg/kg	BDL		2.50	110	15 --- 178		
Vinyl Acetate	48.4	mg/kg	BDL		25.0	194	29 --- 157		
Vinyl chloride	2.47	mg/kg	BDL		2.50	99	70 --- 119		

Lab Control Spike Soil

Analytical Run #:	140370	Analysis Date:	07/27/2017	Prep Batch #:	63291	Matrix:	SOLID
CTLab #:	895418	Analysis Time:	15:06	Prep Date/Time:	07/24/2017 13:30	Method:	SW8310
Parent Sample #:		Analyst:	RED	Prep Analyst:	BMM		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1-Methylnaphthalene	1.13	mg/kg			1.50	75	53 --- 117		20
2-Methylnaphthalene	1.12	mg/kg			1.50	75	53 --- 120		20
Acenaphthene	1.14	mg/kg			1.50	76	49 --- 124		20
Acenaphthylene	1.16	mg/kg			1.50	77	53 --- 118		20
Anthracene	0.195	mg/kg			0.250	78	51 --- 125		20
Benzo(a)anthracene	0.0210	mg/kg			0.0250	84	58 --- 115		20
Benzo(a)pyrene	0.0544	mg/kg			0.0625	87	44 --- 114		20
Benzo(b)fluoranthene	0.0426	mg/kg			0.0500	85	52 --- 112		20
Benzo(g,h,i)perylene	0.107	mg/kg			0.125	86	38 --- 112		20
Benzo(k)fluoranthene	0.0425	mg/kg			0.0500	85	50 --- 113		20
Chrysene	0.213	mg/kg			0.250	85	60 --- 116		20
Decafluorobiphenyl	65.4	% Recovery			100	65.4	44 --- 108		
Dibenzo(a,h)anthracene	0.208	mg/kg			0.250	83	34 --- 110		20
Fluoranthene	0.0428	mg/kg			0.0500	86	59 --- 113		20
Fluorene	0.572	mg/kg			0.750	76	55 --- 118		20
Indeno(1,2,3-cd)pyrene	0.107	mg/kg			0.125	86	38 --- 113		20
Naphthalene	1.11	mg/kg			1.50	74	54 --- 118		20
Phenanthrene	0.196	mg/kg			0.250	78	55 --- 116		20
Pyrene	0.204	mg/kg			0.250	82	58 --- 114		20

Method Blank Soil

Analytical Run #:	140370	Analysis Date:	07/28/2017	Prep Batch #:	63291	Matrix:	SOLID
CTLab #:	895417	Analysis Time:	08:49	Prep Date/Time:	07/24/2017 13:30	Method:	SW8310
Parent Sample #:		Analyst:	RED	Prep Analyst:	BMM		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1-Methylnaphthalene	0.030	mg/kg		U	0		0.030		
2-Methylnaphthalene	0.035	mg/kg		U	0		0.035		
Acenaphthene	0.029	mg/kg		U	0		0.029		
Acenaphthylene	0.031	mg/kg		U	0		0.031		
Anthracene	0.011	mg/kg		U	0		0.011		
Benzo(a)anthracene	0.0018	mg/kg		U	0		.0018		
Benzo(a)pyrene	0.0016	mg/kg		U	0		.0016		
Benzo(b)fluoranthene	0.0011	mg/kg		U	0		.0011		
Benzo(g,h,i)perylene	0.0026	mg/kg		U	0		.0026		
Benzo(k)fluoranthene	0.0024	mg/kg		U	0		.0024		
Chrysene	0.005	mg/kg		U	0		0.005		
Decafluorobiphenyl	56.6	% Recovery			100	56.6	44 --- 108		
Dibenzo(a,h)anthracene	0.006	mg/kg		U	0		0.006		
Fluoranthene	0.0024	mg/kg		U	0		.0024		
Fluorene	0.014	mg/kg		U	0		0.014		
Indeno(1,2,3-cd)pyrene	0.003	mg/kg		U	0		0.003		
Naphthalene	0.042	mg/kg		U	0		0.042		
Phenanthrene	0.006	mg/kg		U	0		0.006		
Pyrene	0.004	mg/kg		U	0		0.004		

Matrix Spike Duplicate Soil

Analytical Run #:	140370	Analysis Date:	07/27/2017	Prep Batch #:	63291	Matrix:	SOIL
CTLab #:	895421	Analysis Time:	23:28	Prep Date/Time:	07/24/2017 13:30	Method:	SW8310
Parent Sample #:	895420	Analyst:	RED	Prep Analyst:	BMM		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1-Methylnaphthalene	0.925	mg/kg	BDL		1.88	49	35 --- 124	52	47
2-Methylnaphthalene	0.906	mg/kg	BDL		1.88	48	36 --- 127	55	48
Acenaphthene	1.01	mg/kg	BDL		1.88	54	24 --- 124	54	51
Acenaphthylene	0.970	mg/kg	BDL		1.88	52	37 --- 139	50	43
Anthracene	0.338	mg/kg	0.396		0.314	0	42 --- 119	46	47
Benzo(a)anthracene	0.0847	mg/kg	0.105		0.0314	0	29 --- 134	49	54
Benzo(a)pyrene	0.114	mg/kg	0.127		0.0784	0	28 --- 128	55	50
Benzo(b)fluoranthene	0.107	mg/kg	0.128		0.0628	0	20 --- 138	53	49
Benzo(g,h,i)perylene	0.180	mg/kg	0.0990		0.157	52	16 --- 116	27	46
Benzo(k)fluoranthene	0.0658	mg/kg	0.0515		0.0628	23	25 --- 129	46	50
Chrysene	0.262	mg/kg	0.127		0.314	43	38 --- 130	43	51
Decafluorobiphenyl	36.5	% Recovery			100	36.5	31 --- 118		
Dibenzo(a,h)anthracene	0.268	mg/kg	0.0907		0.314	56	40 --- 110	31	43
Fluoranthene	0.154	mg/kg	0.273		0.0628	0	26 --- 123	56	51
Fluorene	0.511	mg/kg	0.0616		0.941	48	45 --- 114	53	47
Indeno(1,2,3-cd)pyrene	0.150	mg/kg	0.0936		0.157	36	29 --- 116	44	49
Naphthalene	0.854	mg/kg	BDL		1.88	45	44 --- 122	56	45
Phenanthrene	0.245	mg/kg	0.138		0.314	34	37 --- 132	51	49
Pyrene	0.313	mg/kg	0.238		0.314	24	31 --- 127	47	52

Matrix Spike Soil

Analytical Run #:	140370	Analysis Date:	07/27/2017	Prep Batch #:	63291	Matrix:	SOIL
CTLab #:	895420	Analysis Time:	23:02	Prep Date/Time:	07/24/2017 13:30	Method:	SW8310
Parent Sample #:	894666	Analyst:	RED	Prep Analyst:	BMM		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1-Methylnaphthalene	1.57	mg/kg	BDL		1.87	84	35 --- 124		
2-Methylnaphthalene	1.58	mg/kg	BDL		1.87	84	36 --- 127		
Acenaphthene	1.74	mg/kg	BDL		1.87	93	24 --- 124		
Acenaphthylene	1.60	mg/kg	BDL		1.87	86	37 --- 139		
Anthracene	0.537	mg/kg	0.396		0.312	45	42 --- 119		
Benzo(a)anthracene	0.138	mg/kg	0.105		0.0312	106	29 --- 134		
Benzo(a)pyrene	0.198	mg/kg	0.127		0.0780	91	28 --- 128		
Benzo(b)fluoranthene	0.182	mg/kg	0.128		0.0624	87	20 --- 138		
Benzo(g,h,i)perylene	0.236	mg/kg	0.0990		0.156	88	16 --- 116		
Benzo(k)fluoranthene	0.105	mg/kg	0.0515		0.0624	86	25 --- 129		
Chrysene	0.404	mg/kg	0.127		0.312	89	38 --- 130		
Decafluorobiphenyl	67.7	% Recovery			100	67.7	31 --- 118		
Dibenzo(a,h)anthracene	0.365	mg/kg	0.0907		0.312	88	40 --- 110		
Fluoranthene	0.271	mg/kg	0.273		0.0624	0	26 --- 123		
Fluorene	0.874	mg/kg	0.0616		0.936	87	45 --- 114		
Indeno(1,2,3-cd)pyrene	0.234	mg/kg	0.0936		0.156	90	29 --- 116		
Naphthalene	1.50	mg/kg	BDL		1.87	80	44 --- 122		
Phenanthrene	0.412	mg/kg	0.138		0.312	88	37 --- 132		
Pyrene	0.500	mg/kg	0.238		0.312	84	31 --- 127		

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #: 129150
Client: TETRA TECH

Print Date / Time: 07/21/2017 11:11
Received Date / Time / By: 07/21/2017 10:25 DRT

Project Name: FORMER TELEDYNE SITE
Project Phase: WEST ALLIS, WI

Log-In Date / Time / By: 07/21/2017 11:11 BNA
Project #: 103X90260003S051612004 PM: BMS

Coolers: 5717
Custody Seals Present : **Y**

Temperature: 4.5 C On Ice: **Y**
COC Present:? **Y** Complete? **Y**

Seal Intact? **Y**
Ship Method: FEDEX
Adequate Packaging: **Y**

Numbers: SIGNED AND DATED
Tracking Number: 779699438466
Temp Blank Enclosed? **Y**

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

ONE CUSTODY SEAL WAS PRESENT AND INTACT UPON RECEIPT - DATED 7-20-17 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
894658 TD-SB47 (2-4)-071917				
	UNPRES GL	1	/	%SOL,HG,ICP
	Total # of Containers of Type	(***UNPRES GL***) = **1**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
894659 TD-SB39 (2-4)-071917				
	SOLIDS	1	/	% MOIST,%SOL,HG,ICP
	Total # of Containers of Type	(***SOLIDS***) = **1**		
894659 TD-SB39 (2-4)-071917				
	UNPRES GL	1	/	PAH
	Total # of Containers of Type	(***UNPRES GL***) = **1**		
894659 TD-SB39 (2-4)-071917				
	MEOH TARED	1	/	VOC
	Total # of Containers of Type	(***MEOH TARED***) = **1**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
894660 TD-SB40 (2-4)-071917				
	SOLIDS	1	/	% MOIST,%SOL,HG,ICP
	Total # of Containers of Type	(***SOLIDS***) = **1**		
894660 TD-SB40 (2-4)-071917				
	UNPRES GL	1	/	PAH
	Total # of Containers of Type	(***UNPRES GL***) = **1**		
894660 TD-SB40 (2-4)-071917				

	MEOH TARED	1	/	VOC
	Total # of Containers of Type	(***MEOH TARED***) = **1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
894661	TD-SB38 (8-10)-071917				
		SOLIDS	1	/	% MOIST,%SOL,HG,ICP
		Total # of Containers of Type	(***SOLIDS***) = **1**		
894661	TD-SB38 (8-10)-071917				
		UNPRES GL	1	/	PAH
		Total # of Containers of Type	(***UNPRES GL***) = **1**		
894661	TD-SB38 (8-10)-071917				
		MEOH TARED	1	/	VOC
		Total # of Containers of Type	(***MEOH TARED***) = **1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
894662	TD-SB46 (4-8)-071917				
		UNPRES GL	1	/	%SOL,HG,ICP,PAH
		Total # of Containers of Type	(***UNPRES GL***) = **1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
894663	TD-SB46 (4-8)-071917D				
		SOLIDS	1	/	%SOL,HG,ICP,PAH
		Total # of Containers of Type	(***SOLIDS***) = **1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
894664	TD-SB37 (4-6)-071917				
		SOLIDS	1	/	%SOL,HG,ICP,PAH
		Total # of Containers of Type	(***SOLIDS***) = **1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
894665	TD-SB36 (2-4)-071917				
		SOLIDS	1	/	%SOL,HG,ICP,PAH
		Total # of Containers of Type	(***SOLIDS***) = **1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
894666	TD-SB35 (6-8)-071917				
		SOLIDS	1	/	%SOL,HG,ICP,PAH
		SOLIDS	1	/	%SOL,HG,ICP,PAH
		SOLIDS	1	/	%SOL,HG,ICP,PAH
		Total # of Containers of Type	(***SOLIDS***) = **3**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

894667 TD-SB34 (2-4)-071917

SOLIDS	1	/		%SOL,HG,ICP,PAH

Total # of Containers of Type (*SOLIDS*) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

894668 TD-SB44 (2-4)-071917

UNPRES GL	1	/		%SOL,HG,ICP,PAH

Total # of Containers of Type (*UNPRES GL*) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

894669 TD-SB33 (2-4)-071917

UNPRES GL	1	/		%SOL,HG,ICP,PAH

Total # of Containers of Type (*UNPRES GL*) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

894670 TD-SB45 (4-6)-071917

UNPRES GL	1	/		%SOL,HG,ICP,PAH

Total # of Containers of Type (*UNPRES GL*) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

894671 TD-SB43 (2-4)-071917

UNPRES GL	1	/		%SOL,HG,ICP,PAH

Total # of Containers of Type (*UNPRES GL*) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

894672 TD-SB42 (4-6)-071917

UNPRES GL	1	/		%SOL,HG,ICP,PAH

Total # of Containers of Type (*UNPRES GL*) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

894674 TD-SB41 (2-6)-071917

UNPRES GL	1	/		%SOL,HG,ICP,PAH

Total # of Containers of Type (*UNPRES GL*) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

894675 METHANOL BLANK

MEOH	1	/		VOC

Total # of Containers of Type (*MEOH*) = 1

Condition Code Condition Description

129150

1 Sample Received OK

129150

CHAIN OF CUSTODY

y: Tetra Tech
ct Contact: David Franc
Telephone: (312)201-7778
Project Name: Teledyne West Allis
Project #: 103x902600038051612004
Location: West Allis, WI
Sampled By: Ashley Wagner

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 129150
Company: TETRA TECH
Project: FORMER TELEDYNE S
Logged By: BNA PM: BM

am:
RCRA SDWA NPDES
Waste Other _____

Report To:
EMAIL: dave.franc@tetratech.com
Company: Tetra Tech
Address: 1 S Wacker Dr 37th Floor Chicago, IL 60606

Invoice To:*
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

ANALYSES REQUESTED

Collection 2017 Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	PAH	RCRA metals	VOCs	Dry weight	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test						
7-19	845	S	G		TD-SB47(2-4)-071917	N	✓	✓			1		89465-8
	925				TD-SB39(2-4)-071917		✓	✓	✓	✓	3		89465-9
	10:00				TD-SB40(2-4)-071917		✓	✓	✓	✓	3		894666
	1040				TD-SB38(8-10)-071917		✓	✓	✓	✓	3		894661
	1130				TD-SB46(4-8)-071917		✓	✓			1		894662
	1135				TD-SB46(4-8)-071917D		✓	✓			1		894663
	1215				TD-SB37(4-6)-071917		✓	✓			1		894664
	1245				TD-SB36(2-4)-071917		✓	✓			1		894665
	1335				TD-SB35(6-8)-071917		✓	✓			3	✓	894666
	1410				TD-SB34(2-4)-071917		✓	✓			1		894667
	1440				TD-SB44(2-4)-071917		✓	✓			1		894668
	1505				TD-SB33(2-4)-071917		✓	✓			1		894669

Relinquished By:	Date/Time	Received By:	Date/Time
Ashley A. Wagner	7-20-17 1600		7/21/17 1025
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			7-21-17 1111

Lab Use Only
Ice Present Yes No
Temp 4.5 IR Gun 19
Cooler # 5717

Rev. 3/2015

CHAIN OF CUSTODY

Company: Tetra Tech
Project Contact: David Franc
Telephone: (312)201-7778
Project Name: Teledyne West Allis
Project #: 103X902600038051612004
Location: West Allis, WI
Sampled By: Ashley Wagner

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:
129150

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To:
EMAIL: dave.franc@tetratech.com
Company: Tetra Tech
Address: 1 S. Wacker Dr 37th Floor Chicago, IL 60606

Invoice To:*
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

ANALYSES REQUESTED

Collection 2017 Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	PAH	RCRA metals	VOCs	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
7-19	1530	S	G		TD-SB45(4-6)-071917	N	✓	✓		1		894670
	1555				TD-SB43(2-4)-071917		✓	✓		1		894671
	1630				TD-SB42(4-6)-071917		✓	✓		1		894672
	1700				TD-SB41(2-6)-071917		✓	✓		1		894674
					[illegible]				AW	1		
—	—	—	—		methanol Blank	N			✓	1		894675

Fill in Spaces with Bottles per Test

Relinquished By:	Date/Time	Received By:	Date/Time
Ashley Wagner	7-20-17 1600		7/21/17 1005
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			7-21-17 1111

Lab Use Only
Ice Present Yes No
Temp 4.5 IR Gun 19
Cooler # 5777

Cooler Receipt Form

Ice Present YES NO

Temperature 4.5

IR Gun # 19

Initials [illegible]

Date 7/21/17 Time 1025

Cooler #: 5717

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID:RRLA (262) 792-1282
ASHLEY WAGNER
TETRA TECH
175 N CORPORATE DRIVE
STE 100
BROOKFIELD, WI 53045
UNITED STATES US

SHIP DATE: 20JUL17
ACTWGT: 30.00 LB
CAD: 1104355/INET3920

BILL SENDER

TO DENNIS LINLEY
CT LABORATORIES
1230 LANGE COURT

BARABOO WI 53913
(800) 228-3012 REF 117-0509277.002
INV
PO DEPT

549JK0C2/104C

FedEx Express

FRI - 21 JUL 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7796 9943 8466

55 MSNA

53913
WI-US MSN

CUSTODY SEAL
DATE 7-20-17
SIGNATURE [illegible]

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900