STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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February 14, 2017

Tom Boling
Elma School District
1235 Monte-Elma Rd.
Elma, WA 98541

Re: Determination of No Further Action of the following Site:

- **Site Name:** Elma School District 68
- **Site Address:** 1121 Monte-Elma Road, Elma, WA
- **Facility/Site No.:** 84796885
- **Cleanup Site No.:** 10758

Mr. Boling:

On October 25, 2016, the Department of Ecology's (Ecology) contractor, GeoEngineers, Inc., (GeoEngineers) completed additional site investigation activities at the property located at 1121 Monte-Elma Road, Elma, Washington (Site). The results of this work is summarized in the attached "Soil and Groundwater Characterization Summary", dated January 23, 2017. As a result of these recent investigation activities, Ecology has determined that **no further remedial action** is necessary to clean up residual contamination, associated with the historical release of petroleum hydrocarbons reported at the Site. Further information regarding this determination, including a Site history and summary of the recent investigation activities performed at the Site, is presented below.

Background and Results of Recent Investigation Activities

On November 14, 1992, the Department of Ecology (Ecology) was notified of a suspected release of petroleum product from an underground storage tank (UST) system located at the Site. As a result, the Site was added to Ecology's Confirmed or Suspected Contaminated Sites List (CSCL) as an active Leaking Underground Storage Tank (LUST) Site and has been awaiting further characterization and potential cleanup before a determination of No Further Action (NFA) could be granted.

Ecology received funding through the Model Remedies Grant Program (the Grant Program) to provide additional site characterization to assist a limited number of LUST sites towards closure. The intent of these proposed activities was to further characterize previously identified petroleum impacts at LUST sites still awaiting receipt of a NFA determination from Ecology. As a result, the Elma School District Bus Yard Site was selected to receive a portion of these funds.

To perform the proposed characterization activities funded by the Grant Program, Ecology retained GeoEngineers of Redmond, Washington. GeoEngineers subsequently coordinated and directed the advancement of 3 soil borings at the Site on October 25, 2016. Three soil and three groundwater samples were collected in the vicinity of the former UST cavity to evaluate for the presence of residual hydrocarbons beneath this area of the Site. Laboratory analyses of these samples did not detect concentrations of petroleum hydrocarbons or associated constituents above their associated MTCA Method A cleanup levels (CULs). A more detailed summary of these activities is provided in the attached Site Summary Report.

Determination

Ecology has evaluated the results of the further characterization activities completed in October of 2016 and has concluded that **no further remedial action** is necessary to clean up residual petroleum hydrocarbon contamination at the Site. That conclusion is based on the following analysis:

- Decommissioning and removal of the original, on-Site USTs has removed the source of petroleum hydrocarbons and related constituents beneath the Site;
- Concentrations of petroleum hydrocarbons and related constituents were not detected in the soil samples, collected at the Site on October 25, 2016, above their respective MTCA Method A CULs; and
- Concentrations of petroleum hydrocarbons and related constituents were not detected in the groundwater samples, collected at the Site on October 25, 2016, above their respective MTCA Method A CULs.

As a result of this information, Ecology is issuing an NFA determination for the Site using Model Remedy No. 1, as identified in Ecology's "Model Remedies for Sites with Petroleum Contaminated Soils" (Publication No. 15-09-043, September 2015). Under this option, it has been determined that the historic removal of contaminated soil has achieved Method A CULs beneath the Site. Additionally, an environmental covenant will not be necessary to ensure the continued protection of human health and the environment associated with the historical release of petroleum hydrocarbons reported from the Site UST system.

This determination is based on the information contained in the Site Summary Report and associated analytical reports and documentation. Additional documents related to the reported historical release of petroleum hydrocarbons from the Site UST system are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at (360) 407-6989.

Limitations

1. **This determination does not settle liability with the state.**

   Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

   - Resolve or alter a person's liability to the state.
   - Protect liable persons from contribution claims by third parties.

   To settle liability with the state and obtain protection from contribution claims, a person enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. **This determination does not constitute a determination of substantial equivalence**.

   To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. **State is immune from liability**.

   The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Contact Information

If you have any questions regarding this letter or if you would like additional information regarding the cleanup of contaminated sites, please contact me at (360) 407-0276 or Jeremy.Hughes@ecy.wa.gov . Thank you for your cooperation.

Sincerely,

Jeremy Hughes, LG
LUST Backlog Coordinator
Toxics Cleanup Program, Southwest Regional Office

Enclosures (1)

1. GeoEngineers, Inc. *Soil and Groundwater Characterization Summary*. January 23, 2017.

By Certified Mail: [91 7199 9991 7037 0278 3843]

cc: Nicholas M. Acklam, Ecology
Mark Gordon, Ecology
Ecology Site File

Enclosure A

GeoEngineers, Inc. *Soil and Groundwater Characterization Summary.* January 23, 2017.

GeoEngineers
8410 154th Avenue NE
Redmond, Washington 98052
425.861.6000

January 23, 2017

Washington State Department of Ecology
Toxics Cleanup Program – Southwest Regional Office
PO Box 47775
Olympia, Washington 98504-7775

Attention: Jeremy Hughes

Subject: Soil and Groundwater Characterization Summary
Elma School District Transportation Facility
Elma, Washington
File No. 0504-115-00

INTRODUCTION

This letter report summarizes the results of recent subsurface investigation activities completed at the Elma School District Transportation Facility property (Ecology FSID 84796885), located at 1121 Monte Elma Road in Elma, Washington (the Site; Figure 1). The purpose of the subsurface investigation was to assess the current nature and extent of residual petroleum hydrocarbons in soil and groundwater beneath the Site associated with historic releases from the former underground storage tank (UST) system. Subsurface investigation activities were performed on October 25, 2016. A figure illustrating soil and groundwater sampling locations is presented as Figure 2.

SCOPE OF SERVICES

This project was implemented under GeoEngineers' prime contract with Ecology (Contract No. C1100145, Work Assignment No. C11145C4). Our services were executed in general accordance with the proposal, dated September 8, 2016.

The scope of services for the subsurface investigation was as follows:

1. Coordinated field activities with the property owner(s) prior to site entry.
2. GeoEngineers subcontracted a Washington State-licensed drilling company to complete three soil borings, as shown in Figure 2. Prior to commencing field work, the driller submitted a Notice of Intent to advance site characterization borings to Ecology.

3. Coordinated underground utility locating using the State underground utility notification system (WA One-call), and a private utility locator to assess for potential underground utilities at the site prior to commencing field work. Per state regulations, the boring locations were marked prior to initiating the final WA One-Call request.
4. Prepared a Site-Specific Health and Safety Plan (HSP) in accordance with Washington Administrative Code (WAC) 296-24. A copy of the HSP was signed by GeoEngineers, Ecology, and subcontractor representatives present on site, and was kept on-site for the duration of the associated field activities.
5. Conducted field characterization activities, including monitoring the advancement of three direct-push borings (ESD-1 to ESD-3; Figure 2) at the site.
6. Obtained continuous-core soil and grab groundwater samples from each boring location for potential chemical analysis. All soil and groundwater samples were stored in an ice-filled cooler for transport to an Ecology-accredited analytical laboratory using standard chain-of-custody (COC) protocol. Samples were submitted on hold pending Ecology review of the COC and field-screening information.
7. Analyzed selected soil and groundwater samples, based on directives from Ecology staff, for the following chemicals of potential concern (COPCs):
    - NWTPH-Gx and NWTPH-Dx for gasoline and diesel range organics and heavy oils;
    - Volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260B; and
    - Total and dissolved lead by EPA Method 6010b or 6020.
8. Temporarily stored investigation-derived waste (IDW) generated during boring advancement and sampling in a secure, on-site location using appropriately-labeled containers. A Washington State-licensed transporter was obtained to profile and transport the IDW to an appropriate landfill for subsequent disposal.
9. Uploaded the analytical data (in the form of an electronic data deliverable (EDD) received from the analytical laboratory) to Ecology's Environmental Information Management (EIM) system database.
10. Evaluated the data with respect to the Model Toxics Control Act (MTCA) Method A cleanup levels (CULs).
11. Prepared this report describing site characterization efforts, which includes a summary table of select analytical results, a site plan depicting boring locations, and associated field logs.

SUBSURFACE INVESTIGATION FINDINGS

Subsurface Explorations

Three soil borings were advanced at the site using direct-push exploration equipment to a maximum depth of 20 feet below ground surface (bgs) on October 25, 2016. The approximate exploration locations are depicted on Figure 2.

The subsurface investigation activities were monitored by a representative of GeoEngineers, who visually classified and performed field screening tests on soil samples collected from the soil borings for evidence of petroleum hydrocarbons using a photo-ionization detector (PID). Subsurface conditions and field screening results are shown on the subsurface exploration logs presented in Appendix A.

Soil and groundwater samples were also collected from each location and submitted to a State-certified analytical laboratory for chemical analysis using the methods previously described. Soil sample selection was based on in-field observations and screening methods. Following soil and grab-groundwater sample collection, the borings were subsequently decommissioned in accordance with Ecology regulations.

Subsurface Conditions

Fill material was encountered beneath the asphalt and gravel cover at each boring location, consisting of silty sands with gravel to a depth of approximately 3 feet below ground surface (bgs). Below this fill and surface cover, native material, predominately comprised of fine to medium silty sand, was encountered. A narrow lens of saturated silty gravel with trace sand was encountered from approximately 15 to 17 feet bgs at each location. This gravel lens corresponded to the occurrence of groundwater at each boring location at approximately 15 feet bgs.

Field screening did not indicate the presence of significant concentrations of petroleum hydrocarbons or VOCs. Appendix A provides a description of the field screening methods employed during the recent subsurface characterization activities.

Investigation-Derived Waste

Investigation-derived waste (soil, groundwater and decontamination water), generated during the subsurface investigation, was placed into one 55-gallon drum, appropriately-labeled, and transported off-site for permitted disposal.

CHEMICAL ANALYTICAL RESULTS

Soil and groundwater samples were submitted to OnSite Environmental, Inc., located in Redmond, Washington, for chemical analysis. The chemical analytical data for the soil and groundwater samples are summarized in Table 1. Copies of the analytical laboratory reports are presented in Appendix B.

Soil Analytical Results

Gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons were not detected above their respective MTCA Method A CULs for Unrestricted Land Use in the soil samples collected from borings ESD-1 through ESD-3.

Petroleum-related VOCs, as well as lead, were also not detected above their respective MTCA Method A CULs for Unrestricted Land Use in the soil samples collected from borings ESD-1 through ESD-3.

Groundwater Analytical Results

Gasoline-, diesel-, heavy oil-range petroleum hydrocarbons, and associated VOCs were not detected above their respective practical quantitation limits (PQLs) in the groundwater samples collected from borings ESD-1 through ESD-3.

Total lead was detected above the associated MTCA Method A CUL of 15 micrograms per liter (ug/L) in the groundwater sample collected from boring ESD-2 (41 ug/L). Dissolved-phase lead, however, was not detected above the associated PQL (1.0 ug/L) at this same location. Total and dissolved lead was not detected above the MTCA Method A CULs in the remaining two boring locations (ESD-1 and ESD-3) during the October 2016 investigation activity.

SUMMARY

Soil and groundwater assessment activities were conducted at the Site on October 25, 2016. Three borings (ESD-1 through ESD-3) were advanced to depths ranging from 19 to 20 feet bgs. Observed native material generally consisted of primarily fine to medium silty sand with lesser amounts of gravel. Groundwater was encountered in each boring at approximately 15 feet bgs.

One soil and one grab groundwater sample from each boring was submitted for chemical analysis of the following:

- NWTPH-Gx and NWTPH-Dx for gasoline and diesel range organics and heavy oils;
- VOCs by EPA Method 8260B; and
- Total and dissolved lead by EPA Method 6010b or 6020.

Only a single location (ESD-2) exhibited concentrations of COPCs in excess of their respective MTCA Method A CULs. Total lead was detected above the associated MTCA Method A CUL of 15 micrograms per liter (ug/L) in the groundwater sample collected from boring ESD-2 (41 ug/L). Dissolved-phase lead, however, was not detected above the associated PQL (1.0 ug/L) at this same location. All remaining analytes in soil and groundwater did not exceed their respective MTCA Method A CULs.

LIMITATIONS

We have prepared this report for the exclusive use of the Washington State Department of Ecology. Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. The conclusions and opinions presented in this report are based on our professional knowledge, judgment and experience. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table and/or figure), if provided, and any attachments should be considered a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to Appendix C titled "Report Limitations and Guidelines for Use" for additional information pertaining to use of this report.

Please feel free to contact either of the undersigned should you have any questions or require additional information.

Sincerely,
GeoEngineers, Inc.

1/23/17

Sydney Bronson, EIT
Environmental Engineer
sbronson@geoengineers.com
425.861.6086

Tony Orme, PE
Associate
torme@geoengineers.com
425.861.6076

SJB:TNO:lw

Attachments:

Table 1. Soil and Groundwater Field Screening and Chemical Analytical Data

Figure 1. Vicinity Map

Figure 2. Site Plan

Appendix A. Field Procedures and Boring Logs

Appendix B. Laboratory Analytical Report

Appendix C. Report Limitations and Guidelines for Use

Table 1

Soil and Groundwater Field Screening and Chemical Analytical Data

Elma School District Transportation Facility

Elma, Washington

GeoEngineers File No. 0504-115-00

Sample Matrix	Soil			Groundwater			Soil	Groundwater
Sample ID[1]	ESD-1-14.5	ESD-2-14.5	ESD-3-14.5	ESD-1-102516	ESD-2-102516	ESD-3-102516	MTCA Method A or B Cleanup Level for Unrestricted Land Use	MTCA Method A or B Cleanup Level
Sample Date	10/25/16			10/25/16				
Sample Depth (feet bgs)	14.5	14.5	14.5	--	--	--		
Field Screening								
Sheen	NS	NS	NS	NS	NS	NS		
Headspace Vapor (ppm)	<1	<1	<1	--	--	--		
Units	mg/kg			ug/L			mg/kg	ug/L
Petroleum Hydrocarbons by NWTPH-G or NWTPH-Dx								
Gasoline-Range	<5.2	<5.2	<5.1	<100	<100	<100	30/100[2]	800/1,000[3]
Diesel-Range	<28	<27	<27	<270	<280	<260	2,000	500
Oil-Range	<57	<54	<54	<430	<450	<420	2,000	500
RCRA Metals by EPA 6000/7000 Series or EPA 200.8								
Total Lead	<5.7	<5.4	<5.4	**2.2**	**41**	<1.1	250	15
Dissolved Lead	NA	NA	NA	<1.0	<1.0	<1.0	NA	15
Volatile Organic Compounds (VOCs) by EPA 8260								
Benzene	<0.00081	<0.00086	<0.00085	<0.20	<0.20	<0.20	0.03	5
Toluene	<0.0040	<0.0043	<0.0042	<1.0	<1.0	<1.0	7	1,000
Ethylbenzene	**0.0010**	<0.00086	<0.00085	<0.20	<0.20	<0.20	6	700
Total Xylenes[4]	**0.0032**	**0.0019**	<0.0017	<0.40	<0.40	<0.40	9	1,000
Acetone	<0.0081	<0.0086	0.012[5]	<9.2	<9.2	<9.2	72,000	720
Tetrachloroethene (PCE)	<0.00081	<0.00086	<0.00085	**0.26**	**0.57**	**0.99**	0.05	5
Trichloroethene (TCE)	<0.00081	<0.00086	<0.00085	<0.20	<0.20	<0.20	0	5
Other VOCs[6]	ND	ND	ND	ND	ND	ND	varies	varies

Notes:

[1]Boring locations are shown on Figure 2. Sample ID nomenclature is 'ESD-boring number-sample depth below ground surface' for soil samples, and 'ESD-boring number-date' for groundwater samples.

[2]When benzene is present the gasoline range cleanup level is 30 mg/kg. When benzene is not present the range cleanup level is 100 mg/kg.

[3]When benzene is present the gasoline range cleanup level is 800 ug/L. When benzene is not present the range cleanup level is 1,000 ug/L.

[4]Total xylenes consists of the sum of m,p- and o- xylene. The higher detection limit is shown when xylenes were not detected.

[5]Acetone is a common laboratory solvent and was likely introduced during sample preparation.

[6]See Appendix B for the full list of analytes.

bgs = below ground surface

EPA = U.S. Environmental Protection Agency

mg/kg = milligrams per kilogram

ug/L = micrograms per liter

MTCA = Model Toxics Control Act

ND = not detected

NS = no sheen

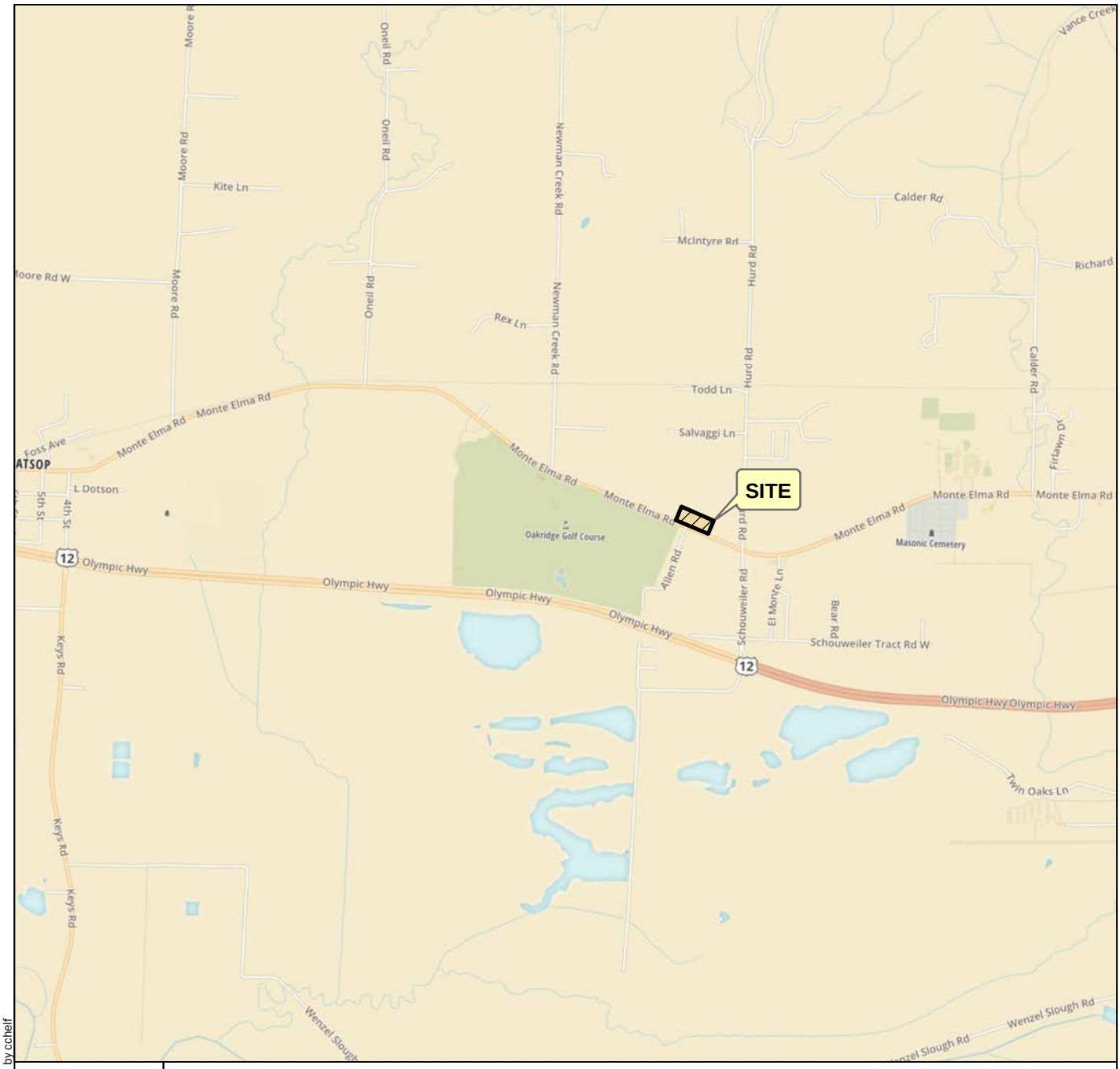
NA = not applicable

ppm = parts per million

RCRA = Resource Conservation and Recovery Act

Bold indicates analyte was detected.

Shading indicates analyte was detected at a concentration greater than the MTCA Cleanup Level for Unrestricted Land Use.



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Feet

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Mapbox Open Street Map, 2016

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Vicinity Map

Elma - SWRO Tanks Model Remedies
Elma, Washington

GeoEngineers

Figure 1

P:\0\0504115\GIS\0504115500_F01_VicinityMap.mxd Date Exported: 01/11/17 by cchelf

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source:
Aerial from Google Earth Pro dated 8/17/2016.

N
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20 0 20
Feet

Legend

ESD-1 Boring Completed by GeoEngineers, October 2016

Site Plan

Elma - SWRO Tanks Model Remedies
Elma, Washington

GeoEngineers

Figure 2

P:\0\0504115\CAD\00\Summary Report\0504115500_F02_Site Plan.dwg TAB:F02 Date Exported: 01/11/17 - 10:35 by hmara

APPENDIX A
Field Procedures and Boring Logs

APPENDIX A
FIELD PROCEDURES AND BORING LOGS

Underground Utility Locate

Prior to drilling activities, an underground utility locate was conducted in the area of the proposed boring locations to identify any subsurface utilities and/or potential underground physical hazards. An underground utility check consisting of contacting the Washington State "One Call" service to notify them of the planned drilling activities and subcontract a private a utility locating service (Applied Professional Service [APS]) to clear each proposed boring location.

Soil Sampling

A truck-mounted direct-push drilling rig operated by Standard Environmental Probe was used to complete the field investigation. Drilling activities were completed in general accordance with Washington Administrative Code (WAC) 173-760 by a Washington state licensed drilling company. Continuous soil cores were obtained from the direct-push borings using 1.5-inch diameter, 5-foot long stainless steel sampler rods driven using a pneumatic hammer. Soil samples were collected in clean, plastic 2.5-inch diameter disposable liners. The liners were placed inside the sampling rod and then hydraulically driven or pushed into the soil at the selected sampling depth.

A representative from our staff classified the soil encountered in each of the borings. Soil in the explorations was visually classified in general accordance with ASTM International (ASTM) D 2488-94. The boring logs are presented in Appendix A, Figures A-2 through A-4.

The sampling equipment was decontaminated before each sampling attempt with a Liqui-Nox® solution wash and a distilled water rinse. Soil samples were obtained for field screening and possible chemical analysis. Soil samples obtained during the exploration activities were collected from the sampler with a stainless steel knife or new gloves. A portion of each sample was placed in laboratory-prepared sample jars for possible chemical analysis. The remaining portion of each sample was used for field screening.

Soil samples collected for potential chemical analysis were placed in a cooler with ice for transport to the laboratory. Standard chain-of-custody procedures were followed in transporting the soil samples to the laboratory.

Field Screening of Soil Samples

Soil samples obtained from the borings were screened in the field for evidence of contamination using: 1) visual examination; 2) sheen screening; and/or 3) or photoionization detector (PID). The results of headspace and sheen screening are included in the boring logs for soil samples tested by chemical analysis.

Visual screening consists of inspecting the soil for stains indicative of petroleum-related contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons, such as motor oil or hydraulic oil, or when hydrocarbon concentrations are high. Sheen screening and headspace vapor screening are more sensitive methods that have been effective in detecting contamination at concentrations less than regulatory cleanup guidelines. Sheen screening

involves placing soil in a pan of water and observing the water surface for signs of sheen. Sheen classifications are as follows:

No Sheen (NS)	No visible sheen on water surface.
Slight Sheen (SS)	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly.
Moderate Sheen (MS)	Light to heavy sheen, may have some color/iridescence; spread is irregular to flowing; few remaining areas of no sheen on water surface.
Heavy Sheen (HS)	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening involves placing a soil sample in a plastic sample bag. Air is captured in the bag and the bag is shaken to expose the soil to the air trapped in the bag. The probe of a PID is inserted in the bag and the instrument measures the concentration of combustible vapor in the air removed from the sample headspace. The PID measures concentrations in ppm (parts per million) and is calibrated to isobutylene. The PID is designed to quantify combustible gas and organic vapor concentrations up to 2,500 ppm. Field screening results are site-specific and vary with soil type, soil moisture content, temperature and type of contaminant.

Groundwater Sampling

Depth to Groundwater

The depths to the groundwater table relative to ground surface were measured using an electric water level indicator. The electric indicator was cleaned with a Liqui-Nox® solution wash and a distilled water rinse prior to use in each well.

Groundwater Sampling

Groundwater samples were obtained as grab samples using low-flow sampling techniques from the direct-push boring. A slotted stainless steel screen was positioned within the boring. Water samples were collected using disposable tubing and peristaltic pump. The water samples were transferred to laboratory-prepared sample containers and kept cool during transport to the testing laboratory. The sample containers were filled completely to eliminate headspace in the container. Chain-of-custody procedures were followed in transporting the water samples to the testing laboratory.

Investigative Waste Disposal

Drill cuttings and decontamination/purge water generated during drilling activities were placed in sealed and labeled 35- and/or 55-gallon drums at a secure location on the subject property pending permitted disposal.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	TS	Topsoil/ Forest Duff/Sod

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata

Approximate contact between soil strata

Material Description Contact

Contact between geologic units

Contact between soil of the same geologic unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Continuous Coring

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

A "WOH" indicates sampler pushed using the weight of the hammer.

Laboratory / Field Tests

%F	Percent fines
%G	Percent gravel
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
PPM	Parts per million
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
NT	Not Tested

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS

GeoEngineers

FIGURE A-1

Rev. 02/16

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
10/25/2016	10/25/2016	20	SJB / TNO	Standard Environmental Probe	Direct-Push

Surface Elevation (ft) / Vertical Datum	38 NAVD88	Hammer Data	Pneumatic 140 (lbs) / 30 (in) Drop	Drilling Equipment	Geoprobe 5410
Latitude / Longitude	47.001533 -123.448022	System Datum	Geographic WGS84	Groundwater	Date Measured / Depth to Water (ft) / Elevation (ft)

Notes: Air-knife to 4 feet

See Remarks

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0					AC	Asphalt concrete pavement			
						GP	Base course			
						SM	Brown silty sand with gravel (loose, moist) (fill)	NS	<1	
35						SM	Brown silty sand with gravel (dense, moist)			
		4								Pushing a rock in shoe
	5							NS	<1	
30		12								
								NS	<1	
	10									
		48						NS	<1	
25										
				ESD-1-14.5		SM-GM	Brown silty gravel with sand (dense, wet)			
	15							NS	<1	Groundwater observed at approximately 15 feet below ground surface during drilling
		48								
20						SP-SM	Brown fine to medium sand with trace silt and gravel (dense, wet)			
	20									

Note: See Figure A-1 for explanation of symbols.

Log of Boring ESD-1

GeoEngineers

Project: WA Ecology - Elma SWRO Tanks Model Remedies

Project Location: Elma, Washington

Project Number: 0504-115-00

Figure A-2

Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
10/25/2016	10/25/2016	20	SJB / TNO	Standard Environmental Probe	Direct-Push

Surface Elevation (ft) / Vertical Datum	37 NAVD88	Hammer Data	Pneumatic 140 (lbs) / 30 (in) Drop	Drilling Equipment	Geoprobe 5410
Latitude / Longitude	47.00154 -123.447959	System Datum	Geographic WGS84	Groundwater	Date Measured / Depth to Water (ft) / Elevation (ft)

Notes: Air-knife to 5 feet

See Remarks

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot	FIELD DATA: Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
35	0					AC	Asphalt concrete pavement			
						GP	Base course			
						SM	Brown silty sand with gravel (loose, moist) (fill)	NS	<1	
	5	36						NS	<1	
30		48								
	10							NS	<1	
25		48		ESD-2-11.5						
				ESD-2-14.5				NS	<1	
	15					SM-GM	Brown silty gravel with sand (dense, wet)			Groundwater observed at approximately 15 feet below ground surface during drilling
20						SP-SM	Brown fine to medium sand with trace silt and gravel (dense, wet)			
	20							NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring ESD-2

GeoEngineers

Project: WA Ecology - Elma SWRO Tanks Model Remedies

Project Location: Elma, Washington

Project Number: 0504-115-00

Figure A-3

Sheet 1 of 1

Drilled Start 10/25/2016 End 10/25/2016	Total Depth (ft) 19	Logged By SJB Checked By TNO	Driller Standard Environmental Probe	Drilling Method Direct-Push
Surface Elevation (ft) 37 Vertical Datum NAVD88		Hammer Data Pneumatic 140 (lbs) / 30 (in) Drop		Drilling Equipment Geoprobe 5410
Latitude 47.001515 Longitude -123.447958		System Datum Geographic WGS84		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft): See Remarks
Notes:				

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
35	0					AC	Asphalt concrete pavement			
						GP	Base course			
						SM	Brown silty sand with gravel (loose, moist) (fill)			
								NS	<1	
							Increasing gravels			
						SM	Brown silty sand with gravel and cobbles (dense, moist)			
	5	30						SS	<1	Very slight sheen; biogenic sheen
30										
		36						NS	<1	Core collected
	10			ESD-3-11						
25		48						NS	<1	Groundwater observed at approximately 12 feet below ground surface during drilling
				ESD-3-14.5		GM	Brown silty gravel with sand (dense, wet)			
	15			ESD-3-102516				NS	<1	
20						SP-SM	Brown fine to medium sand with trace silt and gravel (dense, wet)	NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring ESD-3

GeoEngineers

Project: WA Ecology - Elma SWRO Tanks Model Remedies
Project Location: Elma, Washington
Project Number: 0504-115-00

Figure A-4
Sheet 1 of 1

APPENDIX B
Laboratory Analytical Report

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 8, 2016

Sydney Bronson
GeoEngineers, Inc.
8410 154th Avenue NE
Redmond, WA 98052

Re: Analytical Data for Project 00504-115-00
Laboratory Reference No. 1610-292

Dear Sydney:

Enclosed are the analytical results and associated quality control data for samples submitted on October 26, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

Case Narrative

Samples were collected on October 25, 2016 and received by the laboratory on October 26, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Gx and Volatiles EPA 8260C (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
ESD-1-102516	10-292-01	Water	10-25-16	10-26-16	
ESD-2-102516	10-292-02	Water	10-25-16	10-26-16	
ESD-3-102516	10-292-03	Water	10-25-16	10-26-16	
ESD-1-14.5	10-292-04	Soil	10-25-16	10-26-16	
ESD-2-14.5	10-292-06	Soil	10-25-16	10-26-16	
ESD-3-14.5	10-292-08	Soil	10-25-16	10-26-16	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

NWTPH-Gx

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-1-14.5**					
Laboratory ID:	10-292-04					
Gasoline	**ND**	5.2	NWTPH-Gx	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*63-124*				
Client ID:	**ESD-2-14.5**					
Laboratory ID:	10-292-06					
Gasoline	**ND**	5.2	NWTPH-Gx	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*63-124*				
Client ID:	**ESD-3-14.5**					
Laboratory ID:	10-292-08					
Gasoline	**ND**	5.1	NWTPH-Gx	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*63-124*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-1-102516**					
Laboratory ID:	10-292-01					
Gasoline	**ND**	100	NWTPH-Gx	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*82*	*61-118*				
Client ID:	**ESD-2-102516**					
Laboratory ID:	10-292-02					
Gasoline	**ND**	100	NWTPH-Gx	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*82*	*61-118*				
Client ID:	**ESD-3-102516**					
Laboratory ID:	10-292-03					
Gasoline	**ND**	100	NWTPH-Gx	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*82*	*61-118*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-1-14.5**					
Laboratory ID:	10-292-04					
Diesel Range Organics	**ND**	28	NWTPH-Dx	11-2-16	11-2-16	
Lube Oil Range Organics	**ND**	57	NWTPH-Dx	11-2-16	11-2-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				
Client ID:	**ESD-2-14.5**					
Laboratory ID:	10-292-06					
Diesel Range Organics	**ND**	27	NWTPH-Dx	11-2-16	11-2-16	
Lube Oil Range Organics	**ND**	54	NWTPH-Dx	11-2-16	11-2-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*114*	*50-150*				
Client ID:	**ESD-3-14.5**					
Laboratory ID:	10-292-08					
Diesel Range Organics	**ND**	27	NWTPH-Dx	11-2-16	11-2-16	
Lube Oil Range Organics	**ND**	54	NWTPH-Dx	11-2-16	11-2-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-1-102516**					
Laboratory ID:	10-292-01					
Diesel Range Organics	**ND**	0.27	NWTPH-Dx	11-4-16	11-4-16	
Lube Oil Range Organics	**ND**	0.43	NWTPH-Dx	11-4-16	11-4-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**ESD-2-102516**					
Laboratory ID:	10-292-02					
Diesel Range Organics	**ND**	0.28	NWTPH-Dx	11-4-16	11-4-16	
Lube Oil Range Organics	**ND**	0.45	NWTPH-Dx	11-4-16	11-4-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				
Client ID:	**ESD-3-102516**					
Laboratory ID:	10-292-03					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	11-4-16	11-4-16	
Lube Oil Range Organics	**ND**	0.42	NWTPH-Dx	11-4-16	11-4-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

VOLATILES EPA 8260C
page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-1-14.5**					
Laboratory ID:	10-292-04					
Dichlorodifluoromethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Chloromethane	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
Vinyl Chloride	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Bromomethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Chloroethane	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
Trichlorofluoromethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Acetone	ND	0.0081	EPA 8260C	11-1-16	11-1-16	
Iodomethane	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
Carbon Disulfide	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Methylene Chloride	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
(trans) 1,2-Dichloroethene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Methyl t-Butyl Ether	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Vinyl Acetate	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
2,2-Dichloropropane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
(cis) 1,2-Dichloroethene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
2-Butanone	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
Bromochloromethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Chloroform	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,1,1-Trichloroethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Carbon Tetrachloride	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloropropene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Benzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloroethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Trichloroethene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloropropane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Dibromomethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Bromodichloromethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
2-Chloroethyl Vinyl Ether	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
(cis) 1,3-Dichloropropene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Methyl Isobutyl Ketone	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
Toluene	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
(trans) 1,3-Dichloropropene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-1-14.5**					
Laboratory ID:	10-292-04					
1,1,2-Trichloroethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Tetrachloroethene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,3-Dichloropropane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
2-Hexanone	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
Dibromochloromethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromoethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Chlorobenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,1,1,2-Tetrachloroethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Ethylbenzene	0.0010	0.00081	EPA 8260C	11-1-16	11-1-16	
m,p-Xylene	0.0032	0.0016	EPA 8260C	11-1-16	11-1-16	
o-Xylene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Styrene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Bromoform	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Isopropylbenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Bromobenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,1,2,2-Tetrachloroethane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichloropropane	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
n-Propylbenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
2-Chlorotoluene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
4-Chlorotoluene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,3,5-Trimethylbenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
tert-Butylbenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trimethylbenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
sec-Butylbenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,3-Dichlorobenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
p-Isopropyltoluene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,4-Dichlorobenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,2-Dichlorobenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
n-Butylbenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromo-3-chloropropane	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trichlorobenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Hexachlorobutadiene	ND	0.0040	EPA 8260C	11-1-16	11-1-16	
Naphthalene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichlorobenzene	ND	0.00081	EPA 8260C	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*73-134*				
Toluene-d8	*104*	*81-124*				
4-Bromofluorobenzene	*97*	*80-131*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-2-14.5**					
Laboratory ID:	10-292-06					
Dichlorodifluoromethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Chloromethane	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
Vinyl Chloride	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Bromomethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Chloroethane	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
Trichlorofluoromethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Acetone	ND	0.0086	EPA 8260C	11-1-16	11-1-16	
Iodomethane	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
Carbon Disulfide	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Methylene Chloride	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
(trans) 1,2-Dichloroethene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Methyl t-Butyl Ether	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Vinyl Acetate	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
2,2-Dichloropropane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
(cis) 1,2-Dichloroethene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
2-Butanone	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
Bromochloromethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Chloroform	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,1,1-Trichloroethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Carbon Tetrachloride	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloropropene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Benzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloroethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Trichloroethene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloropropane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Dibromomethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Bromodichloromethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
2-Chloroethyl Vinyl Ether	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
(cis) 1,3-Dichloropropene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Methyl Isobutyl Ketone	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
Toluene	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
(trans) 1,3-Dichloropropene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-2-14.5**					
Laboratory ID:	10-292-06					
1,1,2-Trichloroethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Tetrachloroethene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,3-Dichloropropane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
2-Hexanone	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
Dibromochloromethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromoethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Chlorobenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,1,1,2-Tetrachloroethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Ethylbenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
m,p-Xylene	0.0019	0.0017	EPA 8260C	11-1-16	11-1-16	
o-Xylene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Styrene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Bromoform	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Isopropylbenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Bromobenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,1,2,2-Tetrachloroethane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichloropropane	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
n-Propylbenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
2-Chlorotoluene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
4-Chlorotoluene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,3,5-Trimethylbenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
tert-Butylbenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trimethylbenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
sec-Butylbenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,3-Dichlorobenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
p-Isopropyltoluene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,4-Dichlorobenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,2-Dichlorobenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
n-Butylbenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromo-3-chloropropane	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trichlorobenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Hexachlorobutadiene	ND	0.0043	EPA 8260C	11-1-16	11-1-16	
Naphthalene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichlorobenzene	ND	0.00086	EPA 8260C	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*73-134*				
Toluene-d8	*102*	*81-124*				
4-Bromofluorobenzene	*100*	*80-131*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-3-14.5**					
Laboratory ID:	10-292-08					
Dichlorodifluoromethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Chloromethane	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
Vinyl Chloride	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Bromomethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Chloroethane	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
Trichlorofluoromethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Acetone	0.012	0.0085	EPA 8260C	11-1-16	11-1-16	
Iodomethane	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
Carbon Disulfide	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Methylene Chloride	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
(trans) 1,2-Dichloroethene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Methyl t-Butyl Ether	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Vinyl Acetate	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
2,2-Dichloropropane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
(cis) 1,2-Dichloroethene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
2-Butanone	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
Bromochloromethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Chloroform	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,1,1-Trichloroethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Carbon Tetrachloride	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloropropene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Benzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloroethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Trichloroethene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloropropane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Dibromomethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Bromodichloromethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
2-Chloroethyl Vinyl Ether	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
(cis) 1,3-Dichloropropene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Methyl Isobutyl Ketone	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
Toluene	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
(trans) 1,3-Dichloropropene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-3-14.5**					
Laboratory ID:	10-292-08					
1,1,2-Trichloroethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Tetrachloroethene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,3-Dichloropropane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
2-Hexanone	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
Dibromochloromethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromoethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Chlorobenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,1,1,2-Tetrachloroethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Ethylbenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
m,p-Xylene	ND	0.0017	EPA 8260C	11-1-16	11-1-16	
o-Xylene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Styrene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Bromoform	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Isopropylbenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Bromobenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,1,2,2-Tetrachloroethane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichloropropane	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
n-Propylbenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
2-Chlorotoluene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
4-Chlorotoluene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,3,5-Trimethylbenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
tert-Butylbenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trimethylbenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
sec-Butylbenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,3-Dichlorobenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
p-Isopropyltoluene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,4-Dichlorobenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,2-Dichlorobenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
n-Butylbenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromo-3-chloropropane	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trichlorobenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Hexachlorobutadiene	ND	0.0042	EPA 8260C	11-1-16	11-1-16	
Naphthalene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichlorobenzene	ND	0.00085	EPA 8260C	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*73-134*				
Toluene-d8	*106*	*81-124*				
4-Bromofluorobenzene	*103*	*80-131*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-1-102516**					
Laboratory ID:	10-292-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloromethane	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Vinyl Chloride	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromomethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloroethane	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Acetone	ND	9.2	EPA 8260C	11-1-16	11-1-16	
Iodomethane	ND	1.3	EPA 8260C	11-1-16	11-1-16	
Carbon Disulfide	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methylene Chloride	ND	1.0	EPA 8260C	11-1-16	11-1-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Vinyl Acetate	ND	1.0	EPA 8260C	11-1-16	11-1-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Butanone	ND	5.0	EPA 8260C	11-1-16	11-1-16	
Bromochloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloroform	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Benzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Trichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Dibromomethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromodichloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Chloroethyl Vinyl Ether	ND	1.9	EPA 8260C	11-1-16	11-1-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	11-1-16	11-1-16	
Toluene	ND	1.0	EPA 8260C	11-1-16	11-1-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	

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Samples Submitted: October 26, 2016
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Project: 00504-115-00

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-1-102516**					
Laboratory ID:	10-292-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Tetrachloroethene	0.26	0.20	EPA 8260C	11-1-16	11-1-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Hexanone	ND	2.9	EPA 8260C	11-1-16	11-1-16	
Dibromochloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Ethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
m,p-Xylene	ND	0.40	EPA 8260C	11-1-16	11-1-16	
o-Xylene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Styrene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromoform	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Isopropylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
n-Propylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
n-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Naphthalene	ND	1.0	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*94*	*80-125*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-2-102516**					
Laboratory ID:	10-292-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloromethane	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Vinyl Chloride	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromomethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloroethane	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Acetone	ND	9.2	EPA 8260C	11-1-16	11-1-16	
Iodomethane	ND	1.3	EPA 8260C	11-1-16	11-1-16	
Carbon Disulfide	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methylene Chloride	ND	1.0	EPA 8260C	11-1-16	11-1-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Vinyl Acetate	ND	1.0	EPA 8260C	11-1-16	11-1-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Butanone	ND	5.0	EPA 8260C	11-1-16	11-1-16	
Bromochloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloroform	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Benzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Trichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Dibromomethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromodichloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Chloroethyl Vinyl Ether	ND	1.9	EPA 8260C	11-1-16	11-1-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	11-1-16	11-1-16	
Toluene	ND	1.0	EPA 8260C	11-1-16	11-1-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-2-102516**					
Laboratory ID:	10-292-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Tetrachloroethene	0.57	0.20	EPA 8260C	11-1-16	11-1-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Hexanone	ND	2.9	EPA 8260C	11-1-16	11-1-16	
Dibromochloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Ethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
m,p-Xylene	ND	0.40	EPA 8260C	11-1-16	11-1-16	
o-Xylene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Styrene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromoform	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Isopropylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
n-Propylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
n-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Naphthalene	ND	1.0	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*77-129*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*96*	*80-125*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-3-102516**					
Laboratory ID:	10-292-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloromethane	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Vinyl Chloride	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromomethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloroethane	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Acetone	ND	9.2	EPA 8260C	11-1-16	11-1-16	
Iodomethane	ND	1.3	EPA 8260C	11-1-16	11-1-16	
Carbon Disulfide	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methylene Chloride	ND	1.0	EPA 8260C	11-1-16	11-1-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Vinyl Acetate	ND	1.0	EPA 8260C	11-1-16	11-1-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Butanone	ND	5.0	EPA 8260C	11-1-16	11-1-16	
Bromochloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloroform	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Benzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Trichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Dibromomethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromodichloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Chloroethyl Vinyl Ether	ND	1.9	EPA 8260C	11-1-16	11-1-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	11-1-16	11-1-16	
Toluene	ND	1.0	EPA 8260C	11-1-16	11-1-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ESD-3-102516**					
Laboratory ID:	10-292-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Tetrachloroethene	0.99	0.20	EPA 8260C	11-1-16	11-1-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Hexanone	ND	2.9	EPA 8260C	11-1-16	11-1-16	
Dibromochloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Ethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
m,p-Xylene	ND	0.40	EPA 8260C	11-1-16	11-1-16	
o-Xylene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Styrene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromoform	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Isopropylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
n-Propylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
n-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Naphthalene	ND	1.0	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*96*	*80-125*				

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TOTAL LEAD
EPA 6010C

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-292-04					
Client ID:	**ESD-1-14.5**					
Lead	**ND**	5.7	6010C	11-3-16	11-3-16	
Lab ID:	10-292-06					
Client ID:	**ESD-2-14.5**					
Lead	**ND**	5.4	6010C	11-3-16	11-3-16	
Lab ID:	10-292-08					
Client ID:	**ESD-3-14.5**					
Lead	**ND**	5.4	6010C	11-3-16	11-3-16	

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TOTAL LEAD
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-292-01					
Client ID:	**ESD-1-102516**					
Lead	**2.2**	1.1	200.8	10-31-16	10-31-16	
Lab ID:	10-292-02					
Client ID:	**ESD-2-102516**					
Lead	**41**	1.1	200.8	10-31-16	10-31-16	
Lab ID:	10-292-03					
Client ID:	**ESD-3-102516**					
Lead	**ND**	1.1	200.8	10-31-16	10-31-16	

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DISSOLVED LEAD
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-292-01					
Client ID:	**ESD-1-102516**					
Lead	**ND**	1.0	200.8		11-1-16	
Lab ID:	10-292-02					
Client ID:	**ESD-2-102516**					
Lead	**ND**	1.0	200.8		11-1-16	
Lab ID:	10-292-03					
Client ID:	**ESD-3-102516**					
Lead	**ND**	1.0	200.8		11-1-16	

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NWTPH-Gx
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1101S1					
Gasoline	**ND**	5.0	NWTPH-Gx	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*63-124*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-340-06										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*95*	*96*	*63-124*			

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NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1101W1					
Gasoline	**ND**	100	NWTPH-Gx	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*61-118*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-339-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*84*	*79*	*61-118*			

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NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1102S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	11-2-16	11-2-16	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	11-2-16	11-2-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*123*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-292-06										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*114*	*108*	*50-150*			

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NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1104W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	11-4-16	11-4-16	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	11-4-16	11-4-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-292-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*86*	*93*	*50-150*			

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METHOD BLANK QUALITY CONTROL
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1101S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Chloromethane	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Bromomethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Chloroethane	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Acetone	ND	0.010	EPA 8260C	11-1-16	11-1-16	
Iodomethane	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
Carbon Disulfide	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Methylene Chloride	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Vinyl Acetate	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
2-Butanone	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
Bromochloromethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Chloroform	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Benzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Trichloroethene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Dibromomethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
Toluene	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	

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METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1101S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Tetrachloroethene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
2-Hexanone	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Chlorobenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Ethylbenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
m,p-Xylene	ND	0.0020	EPA 8260C	11-1-16	11-1-16	
o-Xylene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Styrene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Bromoform	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Isopropylbenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Bromobenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
n-Propylbenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
tert-Butylbenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
sec-Butylbenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
n-Butylbenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	11-1-16	11-1-16	
Naphthalene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*110*	*73-134*				
Toluene-d8	*111*	*81-124*				
4-Bromofluorobenzene	*107*	*80-131*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1101S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0479**	**0.0508**	0.0500	0.0500	96	102	66-127	6	15	
Benzene	**0.0479**	**0.0511**	0.0500	0.0500	96	102	76-122	6	15	
Trichloroethene	**0.0465**	**0.0476**	0.0500	0.0500	93	95	78-120	2	15	
Toluene	**0.0506**	**0.0507**	0.0500	0.0500	101	101	83-120	0	15	
Chlorobenzene	**0.0485**	**0.0503**	0.0500	0.0500	97	101	81-120	4	15	
Surrogate:										
Dibromofluoromethane					*97*	*102*	*73-134*			
Toluene-d8					*99*	*102*	*81-124*			
4-Bromofluorobenzene					*97*	*100*	*80-131*			

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1101W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloromethane	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Vinyl Chloride	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromomethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloroethane	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Trichlorofluoromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Acetone	ND	9.2	EPA 8260C	11-1-16	11-1-16	
Iodomethane	ND	1.3	EPA 8260C	11-1-16	11-1-16	
Carbon Disulfide	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methylene Chloride	ND	1.0	EPA 8260C	11-1-16	11-1-16	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Vinyl Acetate	ND	1.0	EPA 8260C	11-1-16	11-1-16	
2,2-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Butanone	ND	5.0	EPA 8260C	11-1-16	11-1-16	
Bromochloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chloroform	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Carbon Tetrachloride	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Benzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Trichloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Dibromomethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromodichloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Chloroethyl Vinyl Ether	ND	1.9	EPA 8260C	11-1-16	11-1-16	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	11-1-16	11-1-16	
Toluene	ND	1.0	EPA 8260C	11-1-16	11-1-16	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-1-16	11-1-16	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1101W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Tetrachloroethene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,3-Dichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Hexanone	ND	2.9	EPA 8260C	11-1-16	11-1-16	
Dibromochloromethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromoethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Chlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Ethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
m,p-Xylene	ND	0.40	EPA 8260C	11-1-16	11-1-16	
o-Xylene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Styrene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromoform	ND	1.0	EPA 8260C	11-1-16	11-1-16	
Isopropylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Bromobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	11-1-16	11-1-16	
n-Propylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
2-Chlorotoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
4-Chlorotoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
tert-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
sec-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
p-Isopropyltoluene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
n-Butylbenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	11-1-16	11-1-16	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Hexachlorobutadiene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Naphthalene	ND	1.0	EPA 8260C	11-1-16	11-1-16	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	11-1-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*105*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*97*	*80-125*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1101W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.90**	**10.5**	10.0	10.0	99	105	63-127	6	17	
Benzene	**10.3**	**10.5**	10.0	10.0	103	105	76-121	2	12	
Trichloroethene	**9.16**	**8.88**	10.0	10.0	92	89	64-114	3	15	
Toluene	**10.3**	**10.1**	10.0	10.0	103	101	82-115	2	13	
Chlorobenzene	**9.76**	**9.74**	10.0	10.0	98	97	80-115	0	14	
Surrogate:										
Dibromofluoromethane					*99*	*105*	*77-129*			
Toluene-d8					*101*	*101*	*80-127*			
4-Bromofluorobenzene					*93*	*97*	*80-125*			

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

TOTAL LEAD
EPA 6010C
METHOD BLANK QUALITY CONTROL

Date Extracted:	11-3-16
Date Analyzed:	11-3-16
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB1103SM4

Analyte	Method	Result	PQL
Lead	6010C	**ND**	5.0

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

TOTAL LEAD
EPA 6010C
DUPLICATE QUALITY CONTROL

Date Extracted: 11-3-16
Date Analyzed: 11-3-16

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 10-292-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	**ND**	**ND**	NA	5.0	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

TOTAL LEAD
EPA 6010C
MS/MSD QUALITY CONTROL

Date Extracted: 11-3-16
Date Analyzed: 11-3-16

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 10-292-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	250	**221**	88	**208**	83	6	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

TOTAL LEAD
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Extracted:	10-31-16
Date Analyzed:	10-31-16
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB1031WM1

Analyte	Method	Result	PQL
Lead	200.8	**ND**	1.1

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

TOTAL LEAD
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Extracted: 10-31-16
Date Analyzed: 10-31-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	**ND**	**ND**	NA	1.1	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

TOTAL LEAD
EPA 200.8
MS/MSD QUALITY CONTROL

Date Extracted: 10-31-16
Date Analyzed: 10-31-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-269-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	222	**214**	96	**221**	100	3	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

DISSOLVED LEAD
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Analyzed: 11-1-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1101D1

Analyte	Method	Result	PQL
Lead	200.8	**ND**	1.0

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

DISSOLVED LEAD
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Analyzed: 11-1-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-332-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	**1.40**	**1.46**	4	1.0	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

DISSOLVED LEAD
EPA 200.8
MS/MSD QUALITY CONTROL

Date Analyzed: 11-1-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-332-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	200	**180**	89	**182**	90	1	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-292
Project: 00504-115-00

% MOISTURE

Date Analyzed: 11-1-16

Client ID	Lab ID	% Moisture
ESD-1-14.5	10-292-04	12
ESD-2-14.5	10-292-06	7
ESD-3-14.5	10-292-08	8

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 00504-115-00
Project Name: WA ECY - Elma SWRO Tanks (Elma)
Project Manager: Sydney Bronson
Sampled by: Sydney Bronson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 10-292

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	ESD-1-102516	10/25/16	1430	GW	9
2	ESD-2-102516		1250	GW	9
3	ESD-3-102516		1130	GW	9
4	ESD-1-14.5		1410	S	6
5	ESD-2-11.5		1215		1
6	ESD-2-14.5		1230		6
7	ESD-3-11.5		1045		1
8	ESD-3-14.5		1100		6

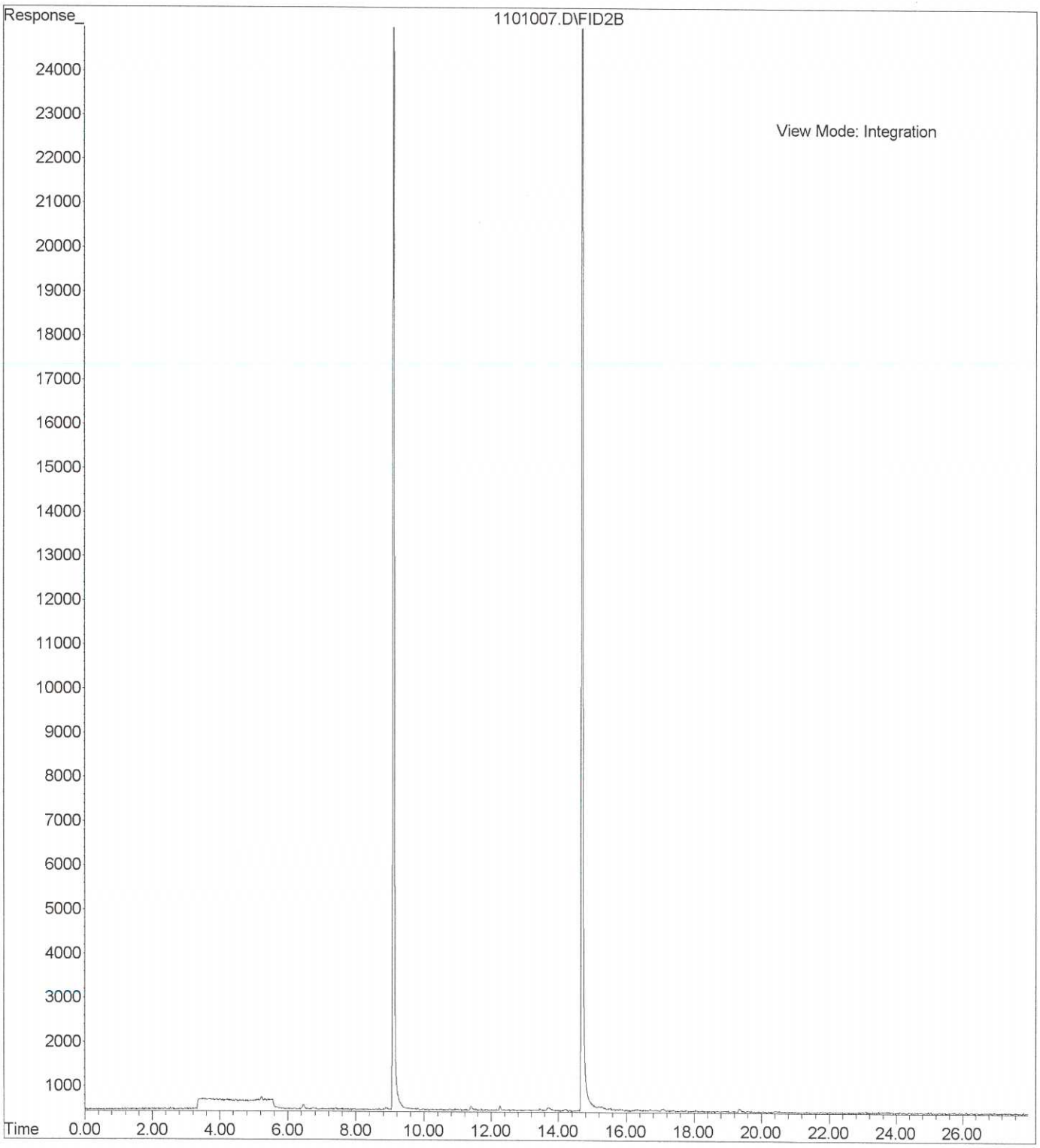
	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total ~~MTCA~~ Metals LEAD	~~TCLP Metals~~ DISSOLVED LEAD (Field filtered)	~~HEM (oil and grease) 1664~~	Hold	ACU/SG *		% Moisture
1			X	X	X										X	X					
2			X	X	X										X	X					
3			X	X	X										X	X					
4			X	X	X										X						X
5																					
6			X	X	X										X						X
7																					
8			X	X	X										X						X

	Signature	Company	Date	Time
Relinquished		GEI	10/26/16	0700
Received		OSE	10.26.16	7:00A
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

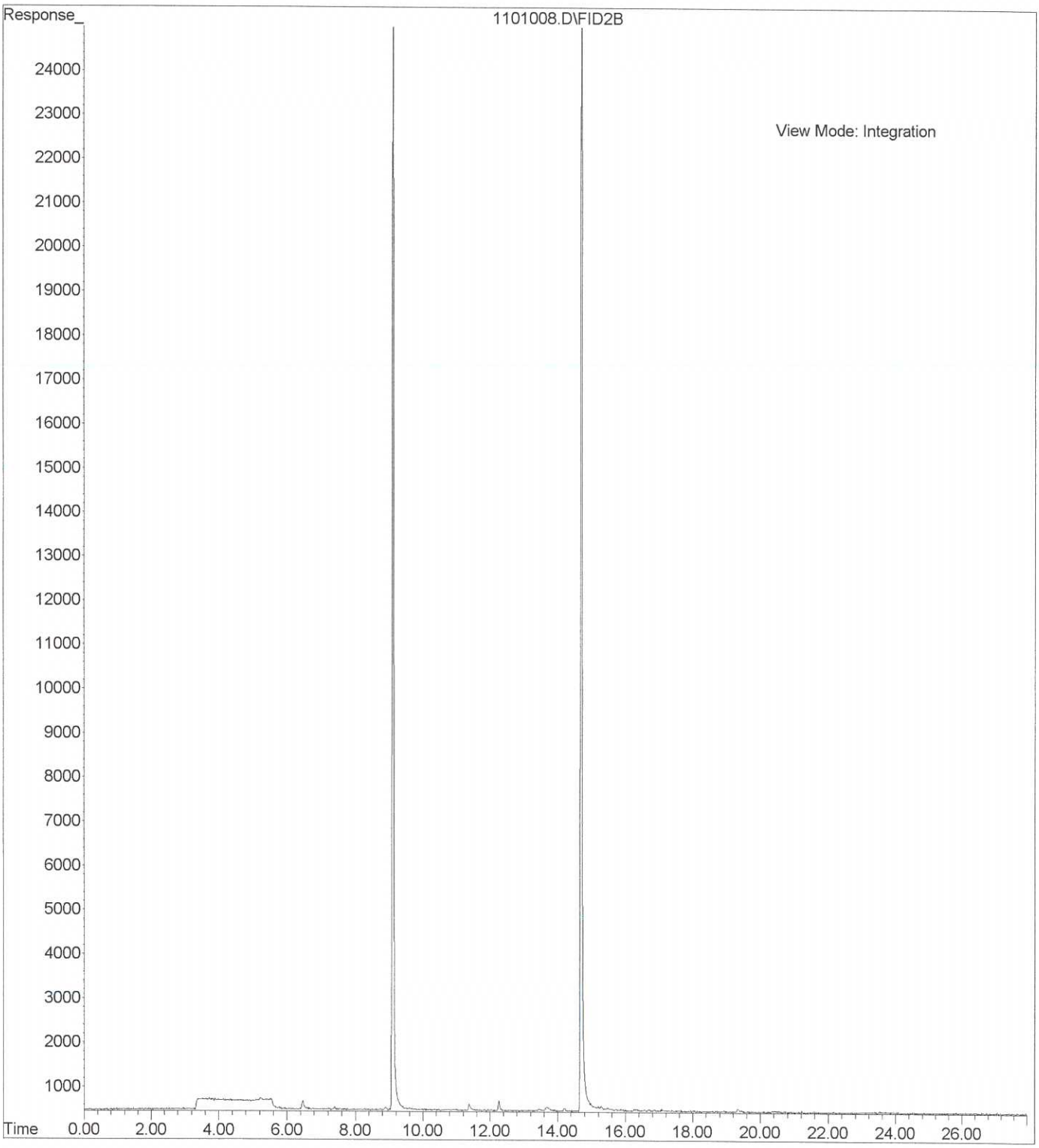
Comments/Special Instructions
Sydney Bronson or Jeremy Hughes to Contact w/ request for analyses.
EDD Requested.
(X) Added 10/31/16. DB (GTA)
* Pending Initial analyses.

Data Package: Standard ☐ Level III ☐ Level IV ☐
Chromatograms with final report ☒ Electronic Data Deliverables (EDDs) ☒

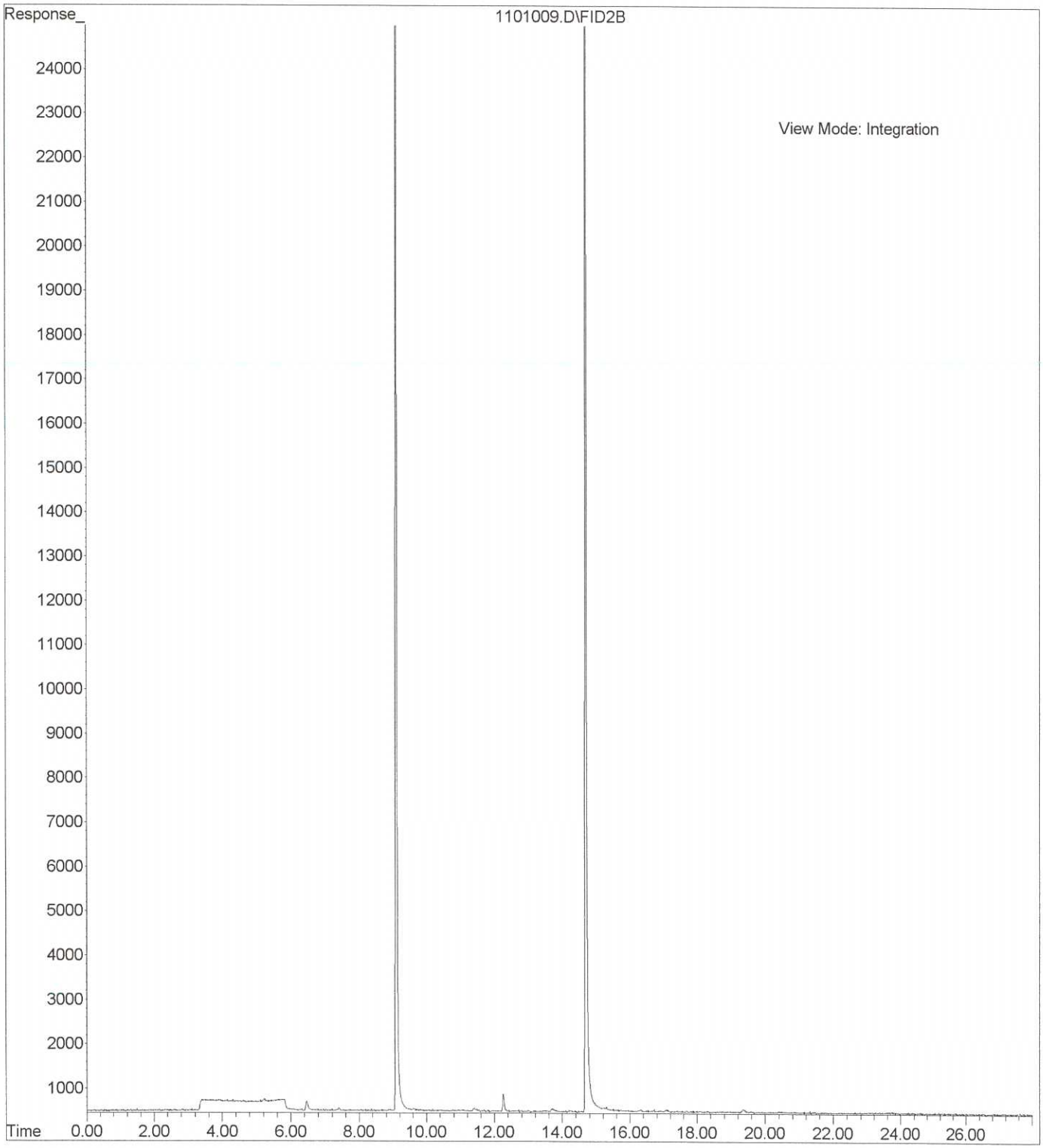
File : X:\BTEX\HOPE\DATA\H161101\1101007.D
Operator :
Acquired : 1 Nov 2016 10:50 using AcqMethod 160630BG.M
Instrument : Hope
Sample Name: 10-292-01f
Misc Info :
Vial Number: 7



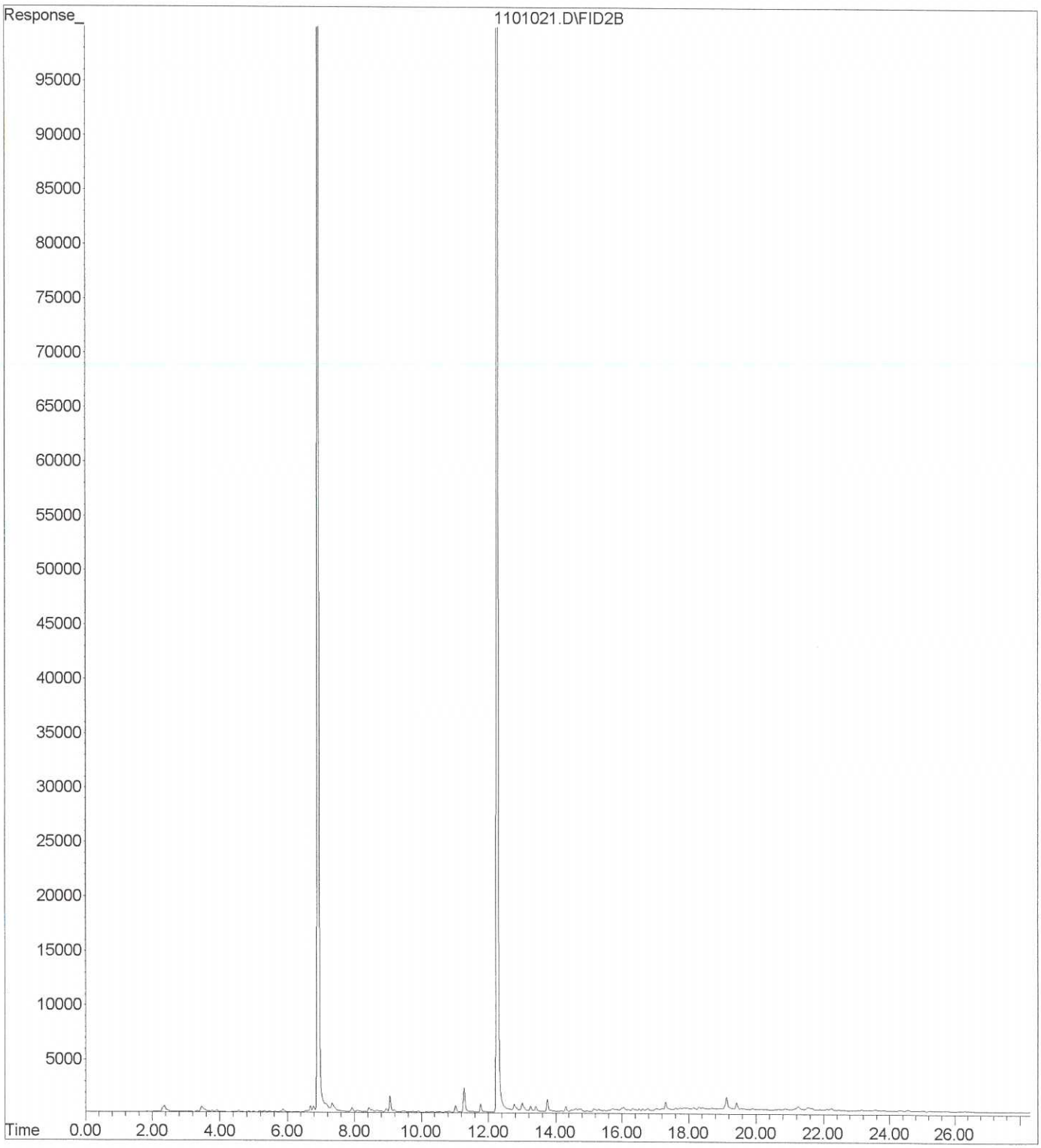
File : X:\BTEX\HOPE\DATA\H161101\1101008.D
Operator :
Acquired : 1 Nov 2016 11:24 using AcqMethod 160630BG.M
Instrument : Hope
Sample Name: 10-292-02f
Misc Info :
Vial Number: 8



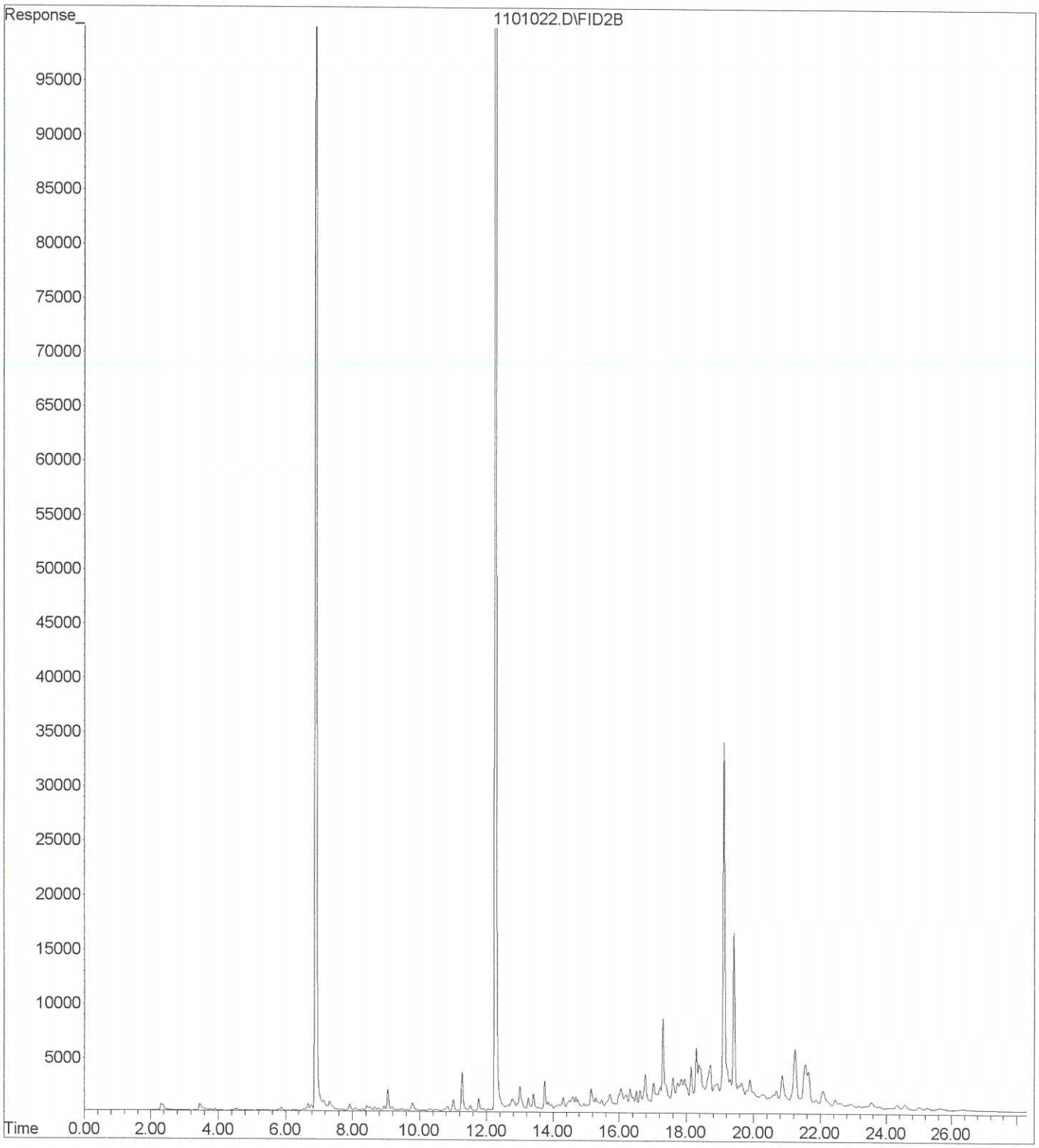
File : X:\BTEX\HOPE\DATA\H161101\1101009.D
Operator :
Acquired : 1 Nov 2016 11:57 using AcqMethod 160630BG.M
Instrument : Hope
Sample Name: 10-292-03f
Misc Info :
Vial Number: 9



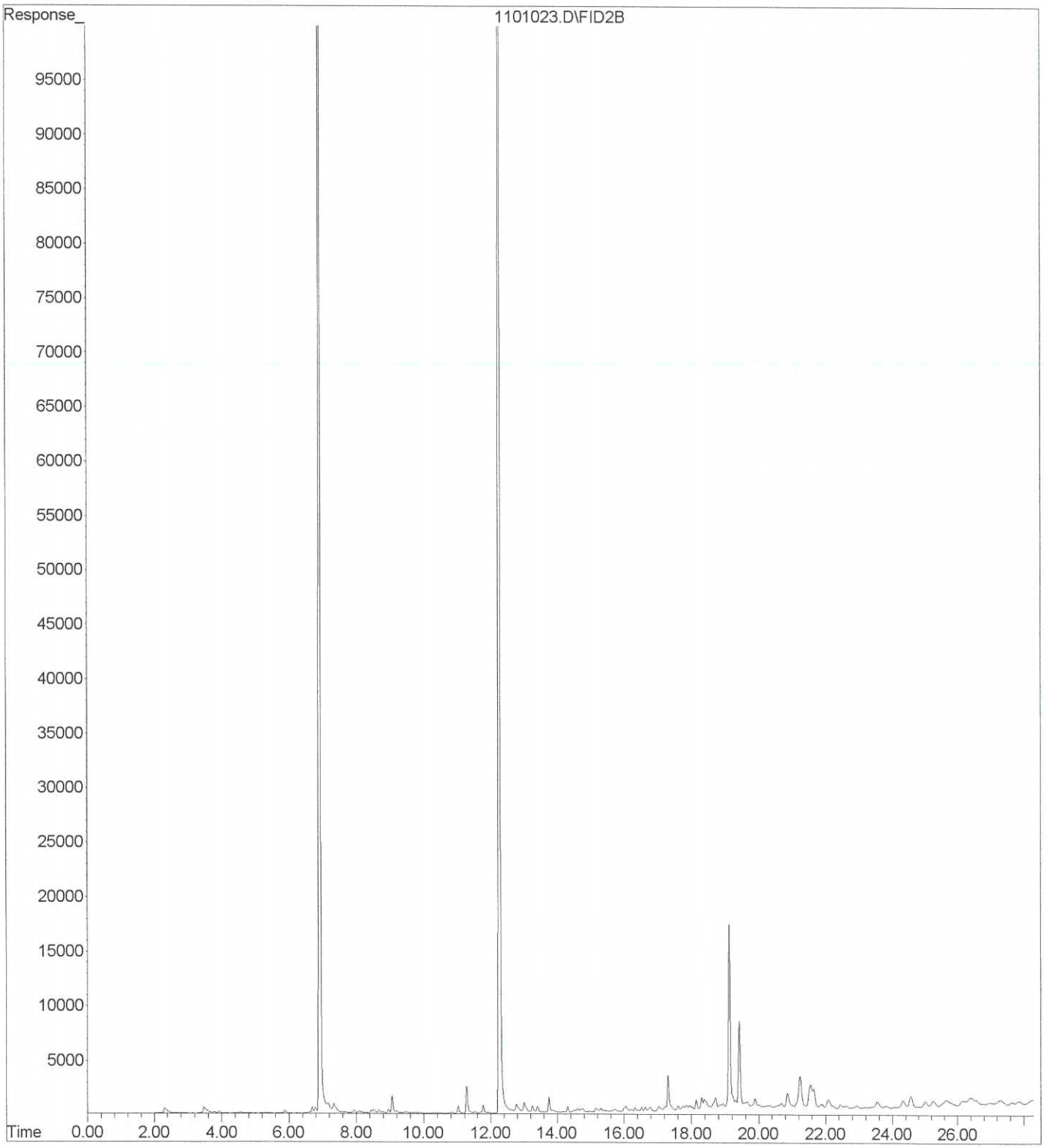
File : X:\BTEX\DARYL\DATA\D161101\1101021.D
Operator :
Acquired : 1 Nov 2016 19:38 using AcqMethod 160825BM.M
Instrument : Daryl
Sample Name: 10-292-04s
Misc Info :
Vial Number: 21



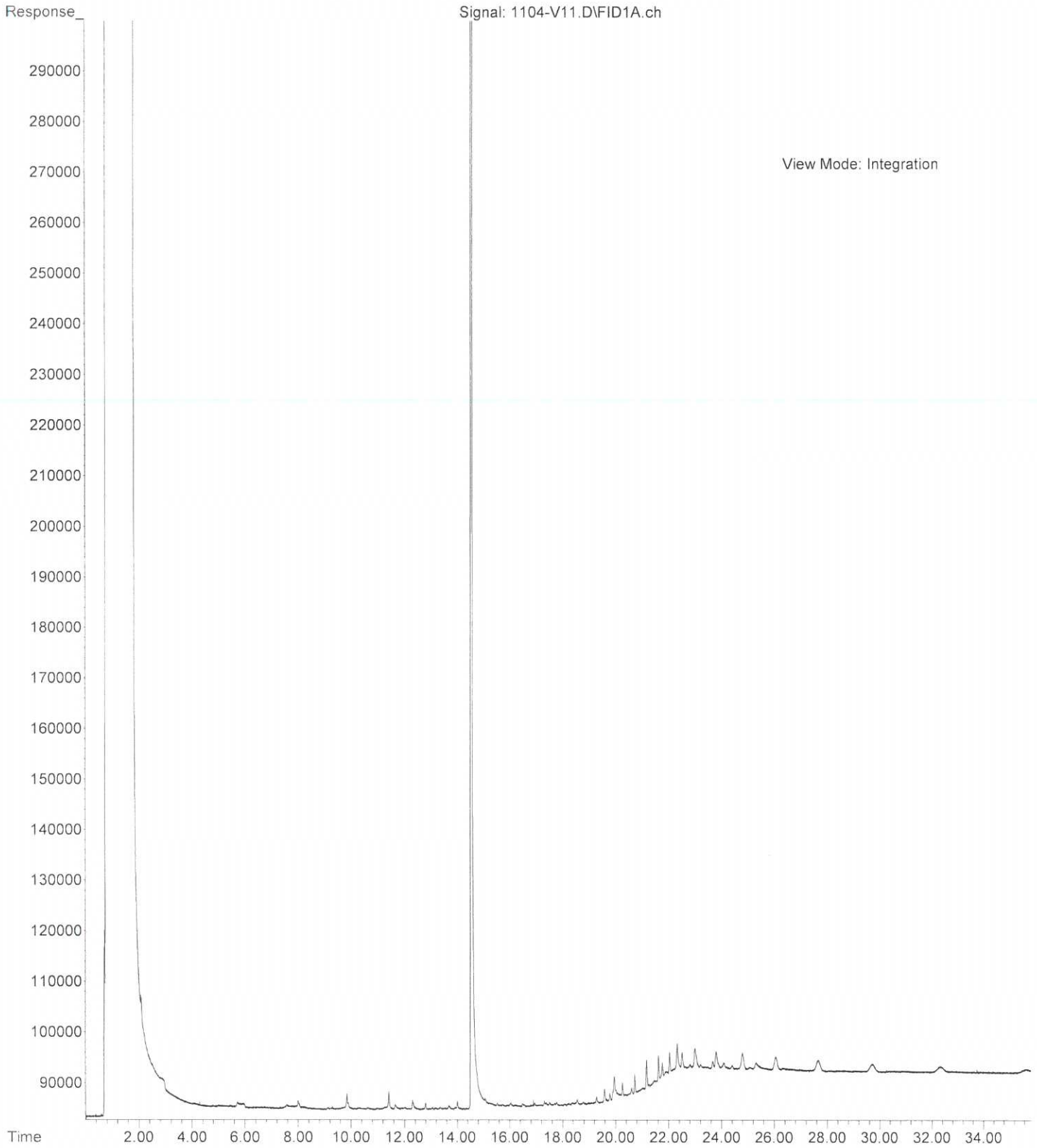
File : X:\BTEX\DARYL\DATA\D161101\1101022.D
Operator :
Acquired : 1 Nov 2016 20:11 using AcqMethod 160825BM.M
Instrument : Daryl
Sample Name: 10-292-06s
Misc Info :
Vial Number: 22



File : X:\BTEX\DARYL\DATA\D161101\1101023.D
Operator :
Acquired : 1 Nov 2016 20:45 using AcqMethod 160825BM.M
Instrument : Daryl
Sample Name: 10-292-08s
Misc Info :
Vial Number: 23



File :X:\DIESELS\VIGO\DATA\V161104\1104-V11.D
Operator :
Acquired : 4 Nov 2016 16:59 using AcqMethod V160602F.M
Instrument : Vigo
Sample Name: 10-292-01
Misc Info :
Vial Number: 11



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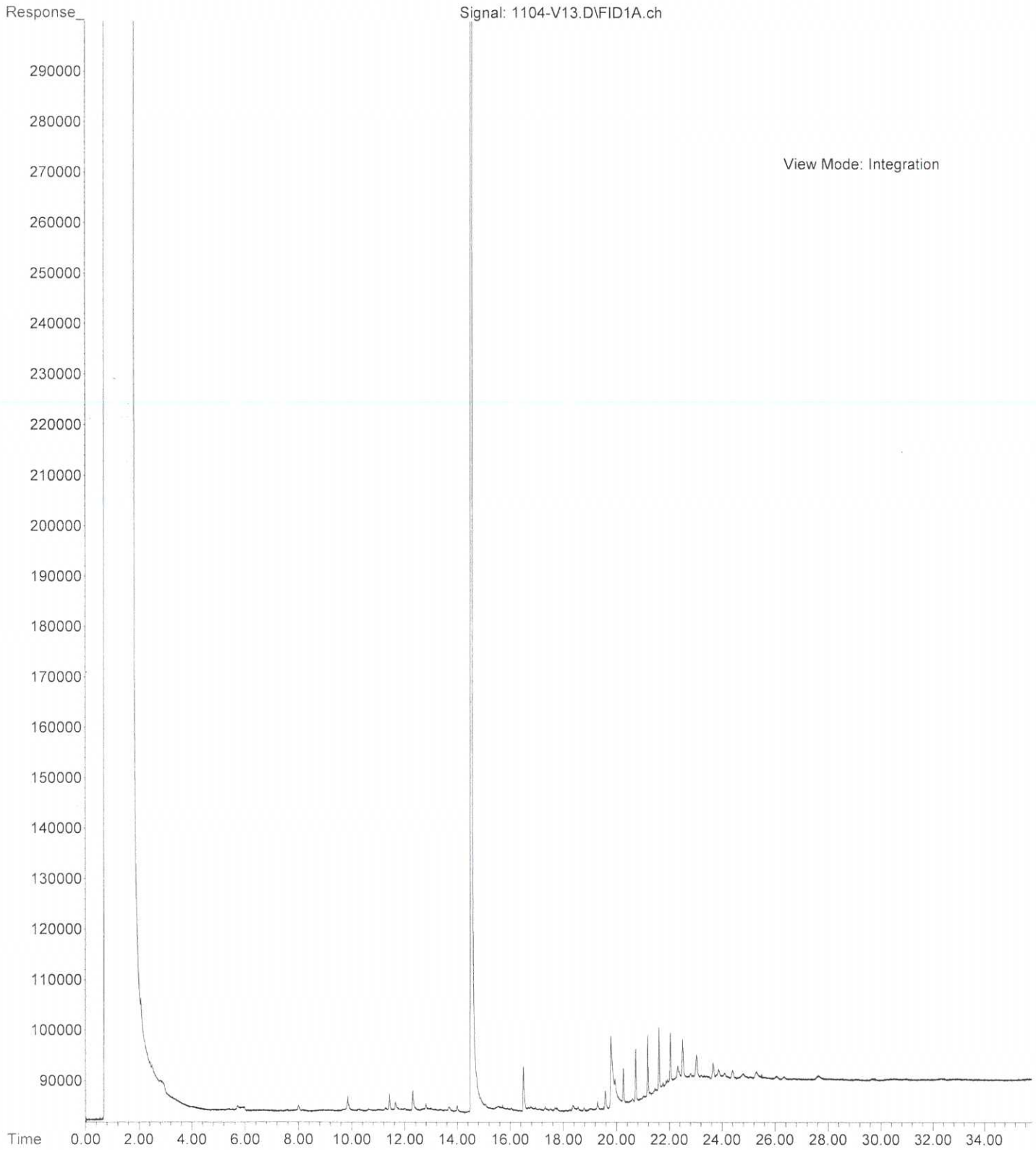

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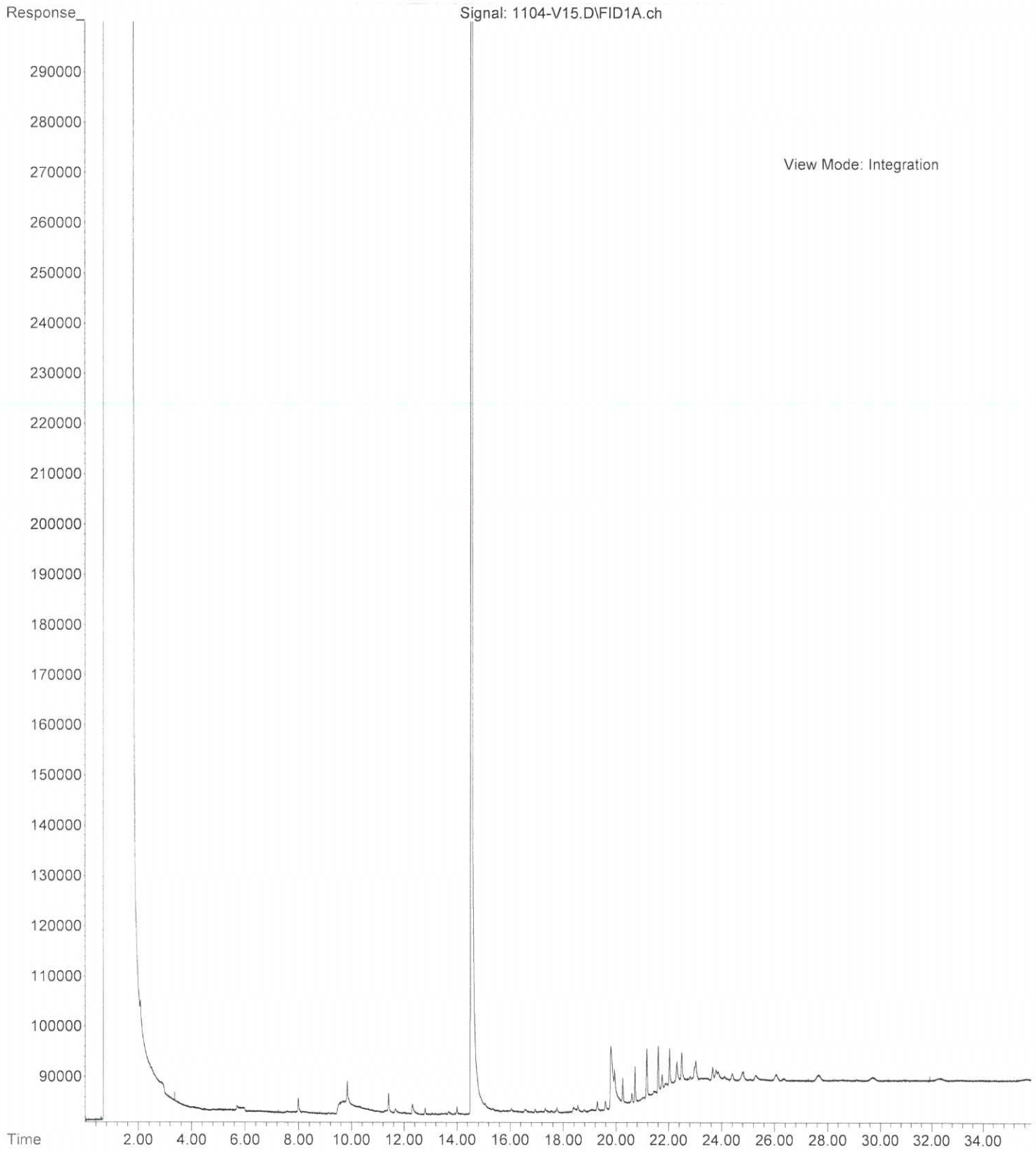

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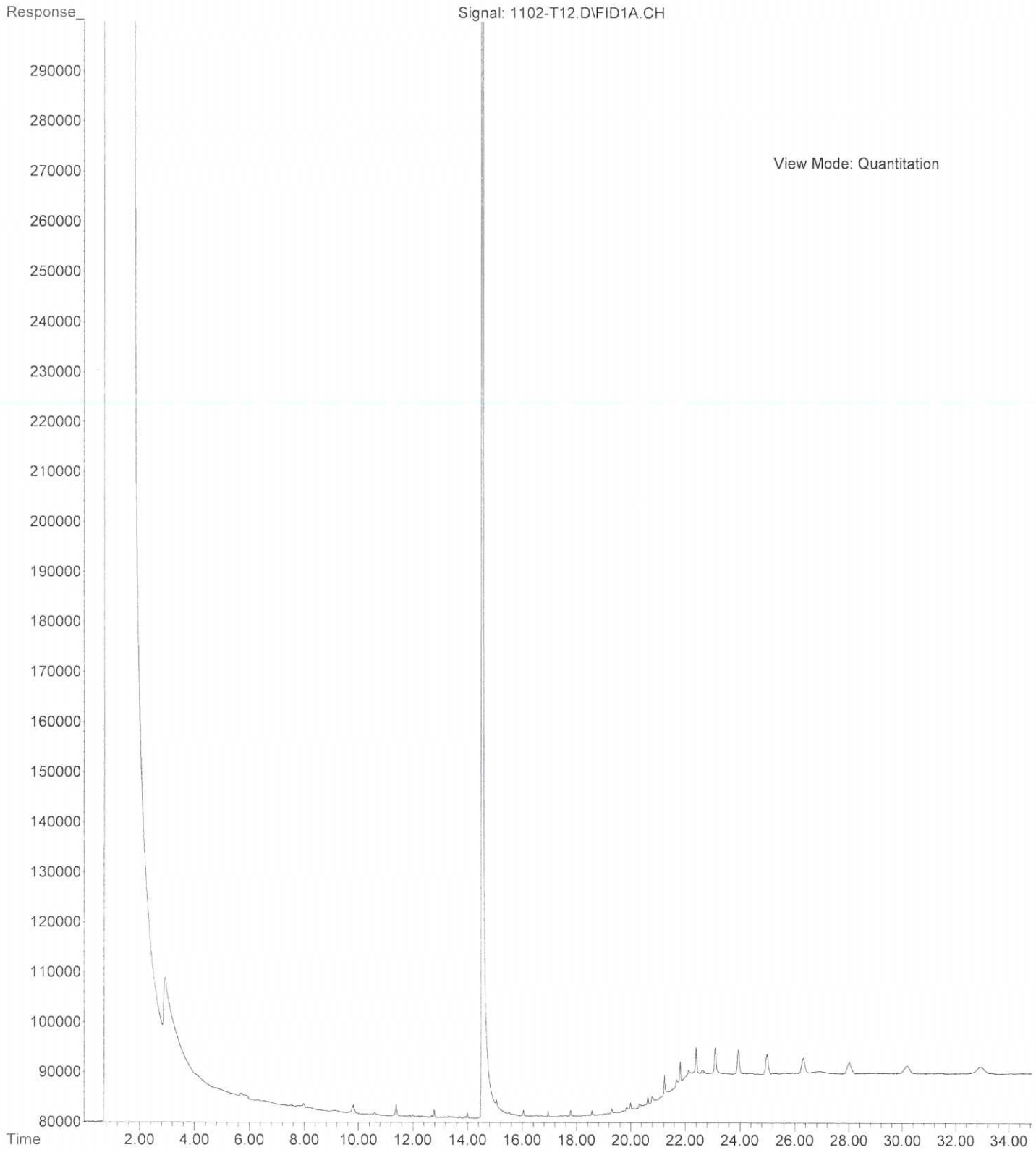

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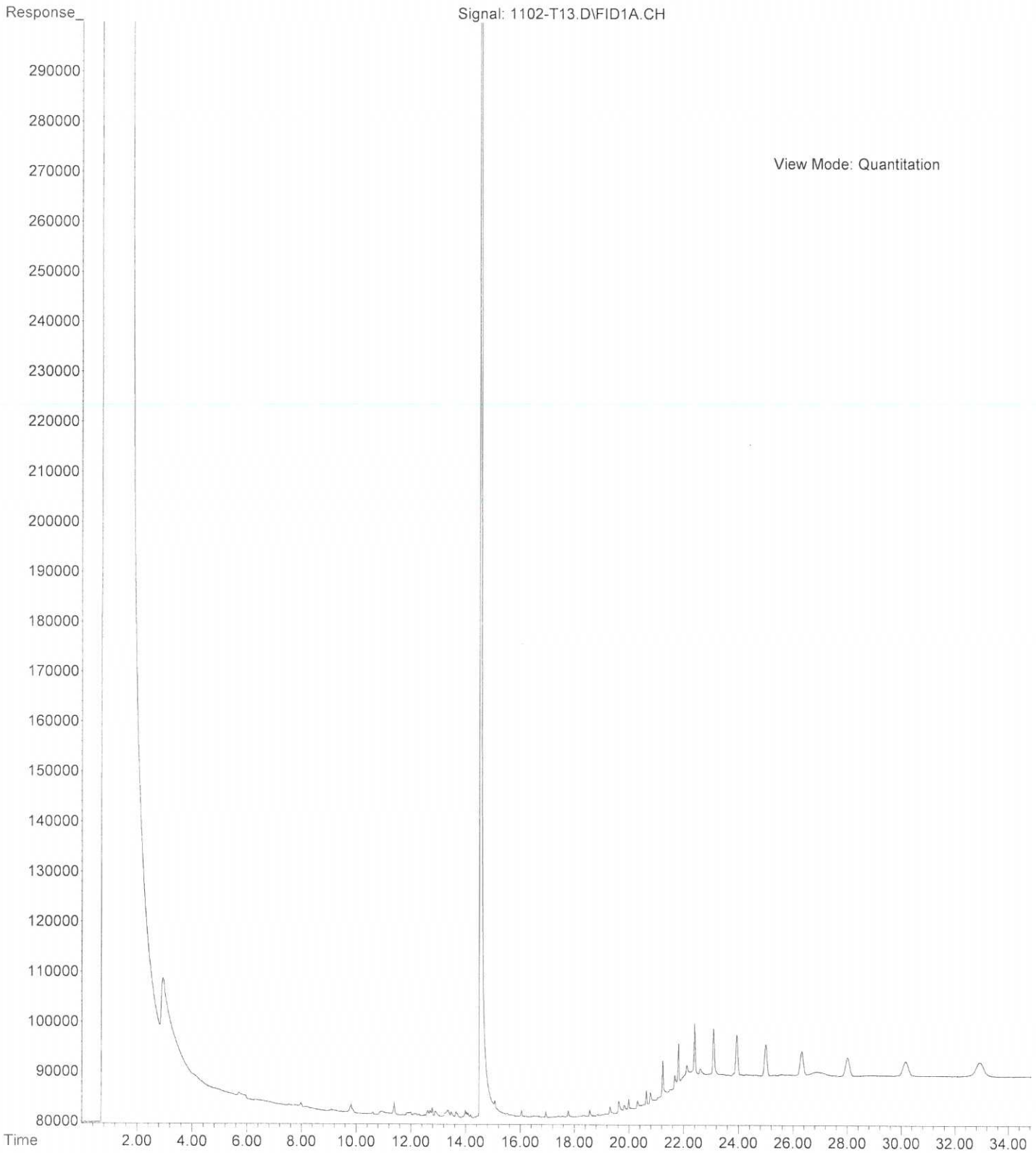

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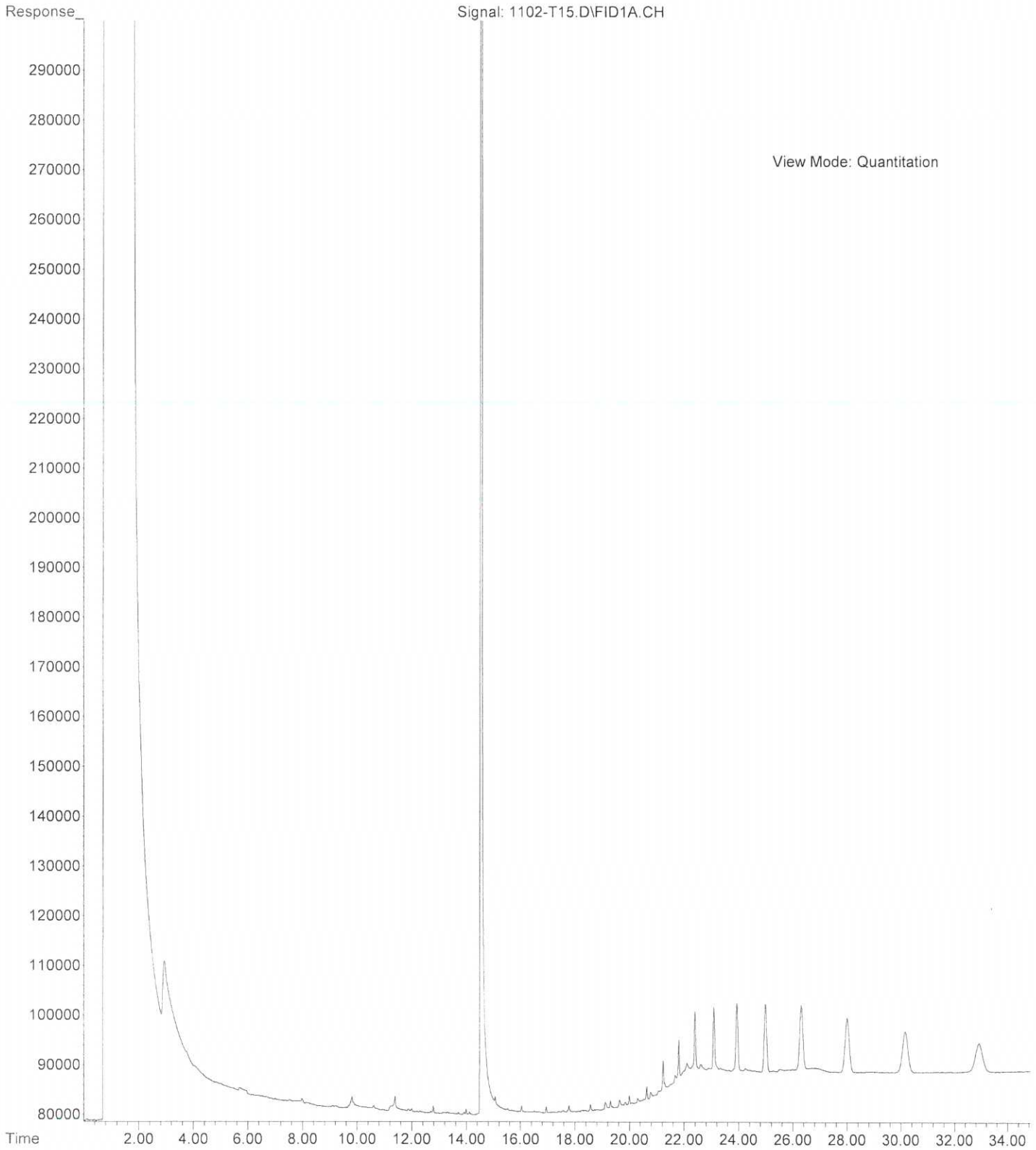

APPENDIX C
Report Limitations and Guidelines for Use

APPENDIX C
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This appendix provides information to help you manage your risks with respect to the use of this report.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

This report has been prepared for the exclusive use of the Washington State Department of Ecology, their authorized agents and regulatory agencies. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment or remedial action study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except the Washington State Department of Ecology should rely on this plan without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

This Environmental Report Is Based on a Unique Set of Project-Specific Factors

GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

[1] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

If important changes are made after the date of this remedial action plan, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

No third party may rely on the product of our services unless GeoEngineers agrees in advance, and in writing to such reliance. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

Environmental Regulations Are Always Evolving

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

Subsurface Conditions Can Change

This report is based on conditions that existed at the time our site studies were performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-Site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the Site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject Site or reuse of the affected media on Site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject Site to another location or its reuse on Site in instances that we were not aware of or could not control.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If Client desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.

Do Not Redraw the Exploration Logs

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

Geotechnical, Geologic and Environmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from the sampling locations at the site documented in past reports. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. There is always a potential that areas of contamination exist in portions of the site that were not sampled or tested during this or previous studies. Our remedial action plan, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.